Globalisation and the Rise of China and India: Challenges and Opportunities for the East Midlands

A report prepared for *emda*

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Glossary of Acronyms and Abbreviations

BIS	Bank for International Settlements
DTI	Department of Trade and Industry
EMDA	East Midlands Development Agency
EU	European Union
FDI	Foreign Direct Investment
GATT	General Agreement on Tariffs and Trade
ICT	Information, Communications and Technology
MFA	Multi-Fibre Arrangement
MNE	Multinational Enterprise
OECD	Organisation for Economic Co-operation and Development
R&D	Research and Development
UKTI	United Kingdom Trade and Investment
UNCTAD	United Nations Conference on Trade and Development
UNCTC	United Nations Centre for Transnational Corporations
WTO	World Trade Organisation

0. EXECUTIVE SUMMARY

The Globalisation Process and its Drivers

- Globalisation is a process whereby national economies become more integrated and more interdependent. Over the last 30 years economic activity has become ever more globalised, driven by rapid increases in international trade, cross-border investment, financial market integration and cross-border migration.

- International trade has grown rapidly since the end of World War II and total trade in goods and services now exceeds $11,000 billion per annum. Trade growth has consistently outstripped the growth of production resulting in economies becoming ever more open and interdependent. This growth has been fuelled by declining costs of cross-border transactions and communications and falling trade barriers.

- Cross-border investment has also grown dramatically and total foreign direct investment stocks worldwide exceed $8,000 billion. Total sales of the affiliates of multinational enterprises worldwide are now almost $20,000 billion annually. Reductions in capital controls, falling communications costs and development of new technologies have combined to make it easier to do such business internationally.

- The widening and deepening of capital markets has supported trade and investment flows. Although the centre of gravity for these markets is still overwhelmingly London and New York, markets are deepening elsewhere, especially in the Far East.

- Cross-border migration contributes to the globalisation process by transferring workers to parts of the world where they are in greater demand and wages are higher. Labour movements are subject to more impediments than capital movements. Nonetheless, significant numbers continue to relocate each year and help build the kinship networks that sustain trade and investment.

China and India in the Global Economy

- China and India are both experiencing high rates of economic growth and as their exports growth exceeds output growth, they are also integrating into the global economy very rapidly.

- Between 1990 and 2004 China's and India's exports outstripped the growth of world exports by a factor of 3.5 and 1.5 respectively. By 2004, China accounted for 6.5 per cent of total world merchandise exports and 2.6 per cent of global services trade; in India the relevant shares were 0.8 per cent and 1.6 per cent. China is already the world's fourth largest exporter and is forecast to be its largest by 2010.

- In both countries exports are concentrated mainly in labour intensive products and standardised processes. But upgrading into higher value-added and more skill-intensive processes is already occurring, with strong export growth in transportation equipment, chemicals, industrial machinery and consumer electronics.

- China and India also represent huge potential markets and import growth has been significant. In 1990 the ratio of imports to GDP in China was 14.3 per cent and in India 8.6 per cent; by 2003 these had grown to 31.8 per cent and 16.0 per cent respectively. A significant proportion of these imports are raw materials, capital goods and intermediates for export oriented industries.

- At present OECD markets account for more than half China's imports and almost two-thirds of its exports. The US is its biggest export market and the EU its biggest source of imports. Under 40 per cent of India's imports originate from, and exports are directed at, OECD countries. The EU is its biggest source of imports and market for exports. The UK's share of imports in both countries has declined over the last decade.

- As China has opened up, it has become something of a magnet for inward investment. For much of the 1990s, 10 per cent of foreign direct investment went there, since 2000 it has been closer to 6 per cent. India attracts far less by way of FDI, only about 1 per cent of the global total. Neither country is as yet a major source of FDI, though that is likely to change over the next decade or so.

Challenges to the East Midlands Economy

- The pace of change required to adjust to globalisation will accelerate with the emergence of China and India. In the longer run this will contribute to increased living standards. However, adjusting to globalisation is not painless and will pose a range of challenges for the East Midlands economy.

- Direct competition from imports represents a very obvious threat to enterprises and workers, especially in the manufacturing sector, which remains important to the regional economy. Here the most acute threat is likely to be faced in garments, textiles, engineering goods and metals.

- The ICT revolution has facilitated a worldwide growth in outsourcing and this is one business strategy for dealing with direct import competition. But outsourcing clearly has the potential to displace jobs from the East Midlands and China and India are major hosts to outsourced activities. Moreover, this is not just a threat to manufacturing but also to finance and business services.

- A further challenge comes from direct export competition. Exporting is important to the region, accounting as it does for over 20 per cent of gross value added. The emergence of China and India as major exporters clearly poses a significant competitive threat to East Midlands exports in third markets.

- Inward investment is an important source of jobs and wealth creation but has declined in importance in the East Midlands in recent years. Because China and India, especially the former, are proving to be such magnets for FDI, the possibility clearly exists that investment that might otherwise have come to the East Midlands will be displaced.

Opportunities for the East Midlands Economy

- Growth of production, employment and income per capita in two such highly populated economies as China and India will offer a range of opportunities to enterprises and their workers in the East Midlands.

- The most obvious opportunity is in the form of direct exports. A large proportion of both countries' imports is in intermediate inputs of, for example, machinery, transport equipment and electrical equipment, in all of which there is production capacity in the East Midlands. Agriculture and processed foodstuffs are also important to the region but currently have restricted access in China and India. As these markets are liberalised, opportunities will open up.

- Outsourcing is an opportunity as well as a challenge. Enterprises often come under pressure because labour costs per unit of output increase to a point where not all stages of production can be sustained. Rather than see a production process disappear in its entirety, where fragmentation is a possibility, increasing engagement with China and India offers opportunities for East Midlands based businesses to outsource specific stages of production.

- China is accumulating substantial trade surpluses, most of which are being invested in short run financial assets. As the economy develops it is certain that, like Japan before, it will invest surpluses in FDI.

- In a mirror image of investment in China, which seeks to take advantage of abundant and cheap unskilled labour, investment from China is likely to seek opportunities in skilled labour intensive and technology intensive activities. The UK has for long been the most important host to inward investment in the EU, much of it export platform FDI targeting the broader European market. Chinese enterprises are likely to find its attributes equally attractive and the East Midlands needs to be alert to these opportunities.

- Rapid import penetration has already triggered defensive trade action in the European Union, recent voluntary export restraints on Chinese garments and the upsurge in anti-dumping actions being cases in point. These may increase the attractiveness of barrier jumping FDI into the UK.

Supporting Adjustment to Globalisation

- Adjusting to global sources of change and developing new economic activities or new ways of supporting existing activities have some similar policy requirements. Evidence suggests that policies and institutions that support and accommodate rather than frustrate and resist change are altogether more successful.

- A lot of what underpins and sustains an environment conducive to adjustment is determined at the national level, for example: a stable macroeconomic environment; institutions which encourage flexibility in product and labour markets; good transport and communications systems and so on. In addition, however, there is a role for regional policy.

- Since foreign direct investment is footloose, there is considerable competition between nations and regions to attract it. Targeted marketing and support can have an impact on location. Gaining an edge in attracting a larger share of the UK's inward investment will be a major challenge for the East Midlands.

- The focus for regional policy should be to: help make East Midlands labour markets and businesses more flexible and adaptable; promote greater skills and technology upgrading; shape infrastructure and institutions in ways that promote exporting and inward investment; provide better information about market opportunities in China and India; promote stronger commercial links with China and India.

- Some of these challenges can be addressed via existing infrastructure, for instance by reviewing the focus of and investment in promoting the region's skill agenda. Others should identify and exploit assets that are distinctive to the region.

- The East Midlands' large Asian communities are potentially a very valuable asset, given the role of kinship and networks in promoting trade and investment. These communities offer potentially valuable market intelligence, points of entry and commercial conduits.

- The region is also home to a large number of higher education institutions (HEIs) that, apart from offering support for human capital development and knowledge transfer, also attract Chinese students in very large numbers. One of the local HEIs even has a branch campus in China. There is an untapped asset here for developing commercial ties.

1. CONTEXT AND OVERVIEW

Globalisation is a process whereby national economies become more integrated and therefore more interdependent. The final quarter of the twentieth century was a period that witnessed a dramatic increase in globalisation, which in turn raised its visibility.[2] It figures prominently in public discourse, whether in the form of debates about 'fair' trade, the power of multinational corporations or migration of labour. For most governments worldwide, the globalisation process is now a major focus for public policy.

At times the urgency around globalisation debates suggests the phenomenon is something novel or new. It is not. Globalisation processes have been an integral feature of economic development for millennia, let alone centuries. Moreover, overall these processes have been to the benefit of mankind. There is a substantial body of academic and policy focused research that demonstrates convincingly a long run connection between globalisation and economic growth. Recent economic history reinforces this, good examples being the growth enhancing impact of the integration of the former Soviet bloc countries into the world economy and the stimulus to growth provided by liberalisation in many (though not all) developing countries.[3]

However, as globalisation processes unwind, not everyone benefits to the same extent or at the same time. Put differently, there are adjustment frictions and it is generally these frictions that underpin disagreements and disputes about globalisation.[4] Frictions arise because globalisation results in resources being reallocated from one activity to another and this process is not costless. Workers can become unemployed or may have to retrain to gain employment in expanding industries. Evidence suggests that the costs associated with these frictions are a small fraction of overall gains. That does not, however, mean that there is not a policy challenge to be confronted.

Although globalisation is not a new phenomenon, there are two particularly distinctive features of the current wave through which we are living. First, the speed of change is more rapid than in the past, due to the information, communications and technology (ICT) revolution. Second, because economies are more open, more people are (directly or indirectly) affected by the process. With the rapid emergence of China and India, two huge continental economies, the pace of change is likely to accelerate and given the sheer size of these

[2] The *Handbook of Economic Globalisation Indicators* (OECD 2005) defines a range of globalisation indicators and their measurement.
[3] For an analysis of long run trends, see N. Crafts (2004). For recent experience of developing countries, see D. Greenaway, C. W. Morgan and P.W. Wright (2002).
[4] Well known critiques and defences of globalisation are J. Stiglitz (2002) and M. Wolf (2004) respectively.

economies, more countries, more people and more enterprises will be affected. Adjustment issues will become more rather than less central to economic activity and political discourse. It follows that there is a need to think more carefully about the policy environment most conducive to exploiting the benefits of globalisation and minimising its costs of adjustment.

We begin this Report with an appraisal of the globalisation process. This will embrace both a documentation of trends in trade, cross-border investment and migration and an evaluation of the key drivers of the process. In Section 3 we then focus specifically on the emergence of China and India. Here we look at both their current role in the world economy and probable development of that role in the coming decade. In Section 4 we shift the focus to the East Midlands economy and ask what challenges it faces in adjusting to direct competition from Chinese and Indian imports as well as the potential pressures associated with indirect competition through for example, outsourcing. But of course there are major commercial opportunities associated with the development of China and India and in Section 5 we appraise these, with particular reference to the East Midlands. Section 6 reviews adjustment policy and Section 7 concludes..

2. THE GLOBALISATION PROCESS AND ITS DRIVERS

One can naturally think of economic globalisation and non-economic globalisation. The latter refers, for example, to cultural integration resulting from an increasingly globalised media. These will not feature in this Report; we focus only on economic globalisation.

Economic globalisation refers to the process of international economic integration: economic activity between individuals, corporate bodies and governments across national boundaries, which results in greater interdependence. In other words, economic welfare at home becomes more sensitive to developments in economies overseas. The key drivers of economic globalisation are international trade, cross-border investment, financial market integration and cross-border migration, all of which have accelerated in recent decades.

International Trade

Table 1 reports key indicators of international trade for the most recent year for which World Trade Organisation (WTO) data is available, 2004.

Table 1: Recent Trends in Trade

Value of Trade (2004)	
Merchandise	$8,907 billion
Services	$2,125 billion
Growth of Merchandise Trade	
1950-73	7.0% per annum
1974-90	4.0% per annum
1990-03	7.3% per annum
Growth of Services Trade	
1990-00	6.5% per annum
2001-03	10.5% per annum

Source: World Trade Report 2005 (WTO, Geneva 2005)

Several points are notable. First, the level of merchandise exports was over $8,900 billion and that of services exports over $2,100 billion. To benchmark this, UK GDP was under $1,900 billion in 2004. If anything, these data understate the level of international trade, partly because of gaps in the coverage of services trade and partly because they take no account of counter-trade, i.e. barter of goods and services with no explicit financial recording of the transaction taking place. The WTO estimates the latter as being equivalent to around 20 per cent of total recorded trade.

As we can see, total trade has grown consistently since the end of World War II and at consistently high rates. In fact there are only two years since 1950 when trade has failed to grow. Note also that services trade is growing more rapidly than merchandise trade. From an economic standpoint, the really important point to note, as shown in Table 2, is the fact that the growth of trade has consistently outstripped growth of production. Clearly if trade growth exceeds output growth, economies must be becoming more open and this is indeed the case.[5]

Growth in trade is due to a combination of factors. First, man-made barrier, in particular tariffs, which act as a friction have declined steadily over the past fifty years. This is partly due to periodic Rounds of multilateral trade liberalisation orchestrated by the WTO and its predecessor, the GATT. It is also due to the fact that many countries, especially developing countries and transitional economies, have undertaken unilateral liberalisation. As a consequence (average) tariffs are at historically low levels of around 5 per cent in the main OECD countries; somewhat higher still in developing countries. Non-tariff barriers, such as

[5] A detailed breakdown of trade by region and commodity can be found in the WTO's *International Trade Statistics*, which is published annually.

quantitative restrictions, voluntary export restraints and anti-dumping measures, have not declined as dramatically as tariffs and this is an area that periodic WTO Rounds of trade talks (like the current Doha Round) continue to target.

Second, alongside this decline in man-made barriers, there has been an even more dramatic decline in natural barriers as costs of transporting goods and services and communications costs have plummeted. This is partly due to infrastructure improvements and partly to the ICT revolution. Technological development more generally has also promoted trade in that it has facilitated the fragmentation of production processes and increased outsourcing of activities, resulting in increased trade in intermediate goods and services, which in turn is directly linked to the development of multinational enterprises and growth of cross-border investment.

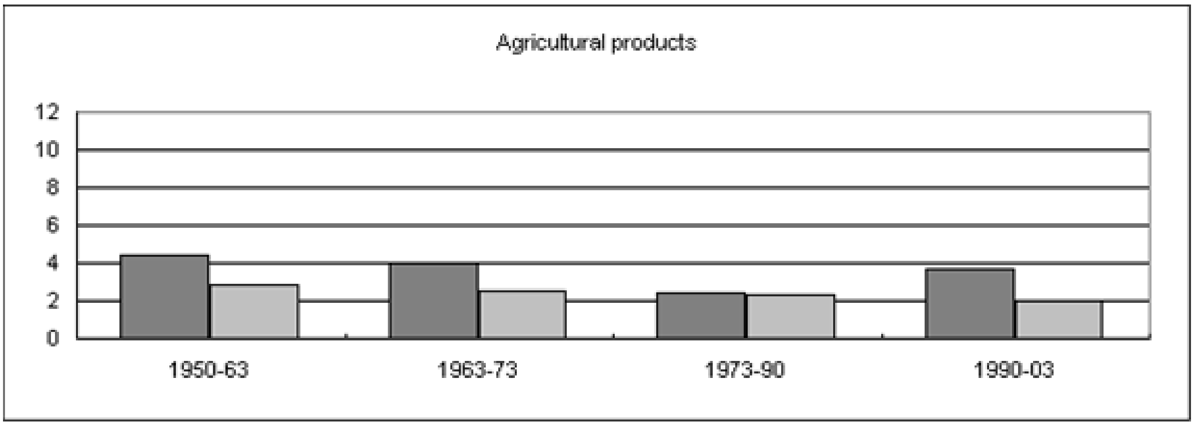
Cross-border Investment

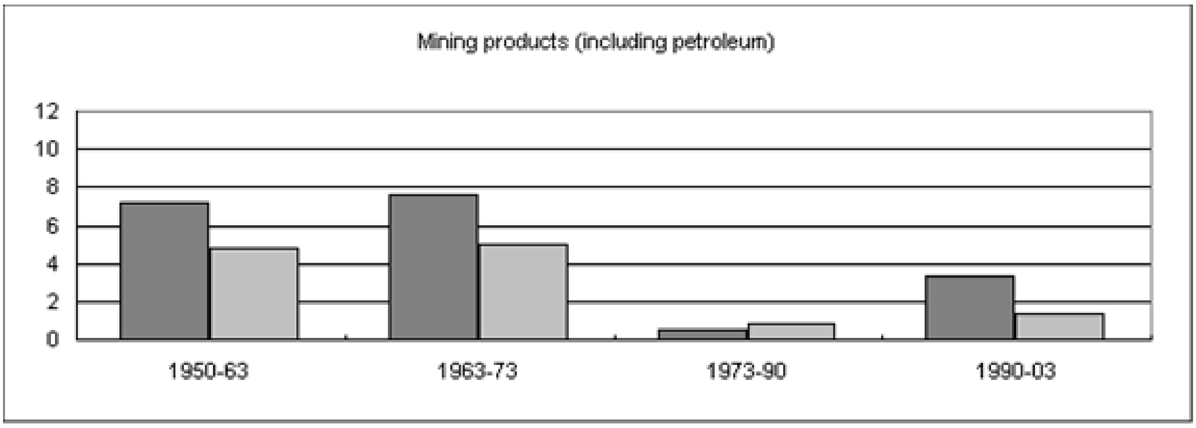
In Table 3 we set out the key headlines relating to trends in foreign direct investment over the last quarter of a century. Several points are notable. First, FDI flows have increased dramatically over this period, whether we take inflows or outflows. However, as is apparent from this data, there is a degree of volatility from one year to the next and for this reason FDI stocks are widely regarded as a more reliable indicator. As we can see, these have increased around twelve-fold over the period and for both inflows and outflows. Inward and outward stocks were almost $9,000 and $10,000 respectively in 2004. This growth in FDI is obviously closely associated with the growth of multi-national enterprises (MNEs), which have been major engines of the globalisation process. These enterprises have become so important that it is estimated that foreign affiliate sales total close to $20,000 billion per annum (in other words almost twice the total value of merchandise and services trade worldwide) whilst their total assets exceeded $36,000 billion in 2004.

Table 2: Selected Long-Term Trends

World merchandise trade and production by major product group, 1950-03

(Average annual percentage change in volume terms)





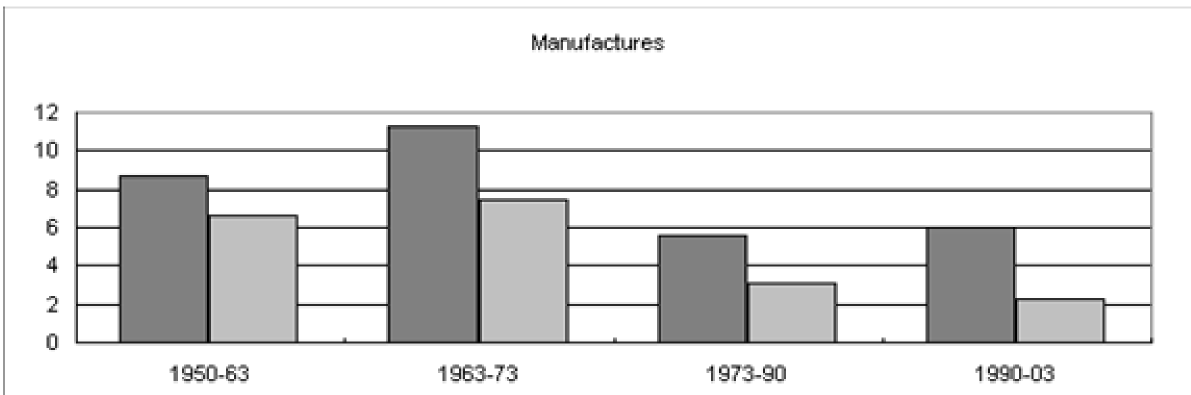


Table 3: Trends in FDI ($bn)

	1980	*1990*	*2000*	*2004*
FDI Inflows	55	209	1,388	648
Developed Country %	84	82	80	65
Developing Country %	16	17	18	27
FDI Outflows	54	242	1,187	730
Developed Country %	92	93	91	93
Developing Country %	6	6	9	6
FDI Inward Stocks	693	1,950	6,090	8,902
Developed Country %	66	72	66	69
Developing Country %	30	28	30	30
FDI Outward Stocks	559	1,758	5,983	9,732
Developed Country %	89	93	86	89
Developing Country %	11	7	14	11

Source: World Investment Report 2005 (UNCTC, New York, 2005)

A second point to note is that developed countries continue to be the major sources of and hosts to FDI. That said, they are more important as sources than hosts; which is what we would expect as capital tends to flow from capital rich to capital poor countries. Moreover, their relative importance as hosts has declined in recent years. Thus, whereas in 2004 developed countries still accounted for 93 per cent of global FDI outflows, they only accounted for 66 per cent of inflows. This is partly due to the surge in inward investment into China and India, especially the former. It is also worth noting that the UK is a key source of, and host to, FDI and has been for a long time. In a European context it is the pre-eminent host, routinely accounting for more than a third of the EU's total inward investment. A combination of a liberal investment environment, London's capital markets and the English language have contributed to this.

Some of the drivers of the growth in FDI are similar to the drivers of growth in trade. For example, transactions costs have fallen with reductions in capital controls and costs of communication. The latter, combined with technological development, has underpinned the rapid growth of MNEs and associated growth in offshoring. It is likely that the growth of FDI will be sustained and that China and India's role will increase as hosts, but given the huge current account surpluses being amassed in China, as sources also. We consider the implications of the latter later in this Report. Policy intervention also impacts, responding to the fact that multinationals are footloose and in the belief that inward investment not only brings direct benefits in the form of income and employment but also spillover benefits to domestic enterprises in induced productivity growth. As a result, national and regional agencies target policy at attracting FDI. Again, we return to this later.

Financial Market Integration

FDI refers to what we usually think of as long-term capital flows. Its growth and that of trade depends upon having efficient and deep financial markets. Financial intermediation is clearly central to the development of any economic system and this is even more true of the global economy as of any individual national economy.

There are no straightforward measures of financial market integration. One indirect measure is turnover in foreign exchange markets, which we report in Table 4. Two things are striking. First, growth in turnover. Over the last 15 years, spot transactions have doubled and total transactions tripled. Second the sheer scale of this activity: average *daily* turnover is over $600 billion in spot transactions and almost $1,900 billion in total transactions. There is of course a degree of concentration in this activity, with over 40 per cent of total transactions involving US dollars and around 50 per cent of activity being located in the UK and US. Nonetheless, the market is broad as well as deep and involves activity located in a growing number of developing and transitional economies as well as smaller industrialised economies. By 2004, almost 20 per cent of transactions were conducted in Asian markets, for example. These trading volumes are quite extraordinary orders of magnitude, which give an indication of just how extensive financial intermediation is and how central it is to the globalisation process.

Table 4: Global Foreign Exchange Market Turnover[1]
Daily averages in April, in billions of US dollars

	1989	*1992*	*1995*	*1998*	*2001*	*2004*
Spot transactions	317	394	494	568	387	621
Outright forwards	27	58	97	128	131	208
Foreign exchange swaps	190	324	546	734	656	944
Estimated gaps in reporting	56	44	53	60	26	107
Total 'traditional' turnover	590	820	1,190	1,490	1,200	1,880
Memo: Turnover at April 2004 exchange rates[2]	650	840	1,120	1,590	1,380	1,880

[1] Adjusted for local and cross-border double-counting.
[2] Non-US dollar legs of foreign currency transactions were converted from current US dollar amounts into original currency amounts at average exchange rates for April of each survey year and then reconverted into US dollar amounts at average April 2004 exchange rates.

Source: Bank for International Settlements

Cross-border Migration

Migration contributes to the globalisation process by transferring workers from labour abundant to labour scarce economies and by underpinning and sustaining networks that then support the development of trade and investment. Media interest in one side of the process, immigration, might lead the lay person to suppose it is *the* most important driver. In fact, in the modern world it is probably the *least* important driver. There have been times when emigration and immigration were very significant. Thus in the late nineteenth century 'old world countries' like the UK, Germany and Spain were losing around 3 to 6 per cent of their population annually. Inflows into receiving countries were even more dramatic, with immigration into the US in the 1890s amounting to 9 per cent of the population and 16 per cent in Australia. Modern migration is just not on this scale: in the US it is around 3 per cent per annum, in the UK around 2 per cent per annum.

Historically the UK has adopted a fairly liberal stance towards migration. Notwithstanding the more sensitive post-11th September 2001 political environment, that liberal stance has been sustained, buoyed by a tight labour market and slow population growth. As a result, total numbers have more than doubled since 1991, with almost 125,000 migrants being granted British citizenship in 2003. It is widely acknowledged that migrant labour has an important role to play in relieving both high skill and low skill shortages, health professionals being an example of the former and ancillary workers in the services sector an example of the latter.

It is hard to judge at this point what impact China and India's growth will have on migration. On the one hand there have been major diasporas from both historically; on the other hand, rising prosperity at home ought to be expected to stem the flow of economic migrants. In the UK context, total migrants from India continue to grow, though their share in total inflows has declined by a third over the last decade, whilst those from China have increased fourfold in numbers and doubled their share. Although actual flows do not seem to justify the media interest in migration, it will nonetheless continue to be an important driver of globalisation.

3. CHINA AND INDIA IN THE GLOBAL ECONOMY

As we noted at the outset, China and India are growing very rapidly. Since in both countries the growth in their trade has exceeded the growth of real output, they are also integrating rapidly into the world economy. It is no exaggeration to suggest that in historical terms their emergence may be one of the three biggest 'shocks' to the world economy of the last 500 years, the other two being the Industrial Revolution and integration of the US economy. In this Section we review a range of indicators of integration and comment on likely future trends.

Aggregate Exports

Between 1990 and 2004 merchandise exports grew globally by about 265 per cent (and hereafter in nominal terms). Over the same period, China's grew by 957 per cent and India's by 405 per cent. The transformation of these two large continental economies into major players, in the case of China into one of the leading exporters globally, has been fostered by changing internal and external conditions. Both have substantially reformed and liberalised their trade regimes, in China's case this being reinforced by WTO membership. By liberalising their imports and increasing the incentive to produce for export markets, they have dramatically increased their capacity to produce and export goods for which their endowments of labour provide them with comparative advantage. Simultaneously external conditions have been conducive to China and India taking full advantage of globalisation. Trade barriers have fallen in manufactured goods in general in industrialised countries and this is particularly so in specific sectors, not least clothing and textiles with the dismantling of the Multi-Fibre Arrangement, following the Uruguay Round of multilateral trade negotiations; though it should be noted that the speed of growth of China's clothing and textiles exports has resulted in the re-introduction in 2005 by the EU of agreed, but allegedly temporary, quantitative restrictions. Falling communication and transport costs have fostered also the fragmentation of international production and provided increased opportunities for domestic and multinational firms to take advantage of lower production costs for more labour-intensive stages of production, through outsourcing and relocation of production.

The pattern of change is similar for both China and India but the scale is dramatically different. By 2004 China accounted for 6.5 per cent of world merchandise exports and India only 0.8 per cent (see appendix table A2). For services this difference is much less marked. China's share of global services trade grew from 0.7 per cent in 1990 to 2.6 per cent in 2003, while India's share grew over the same period from 0.6 per cent to 1.6 per cent. China is now the fourth largest exporter globally and a recent OECD report forecasts it will be the largest by 2010.[6]

For both goods and services trade it is the growth rates that are so impressive by international standards (see Appendix Tables A5 and A6). Of course, it is these double-digit growth rates (and the prospect of them being sustained into the

[6] *Economic Survey of China 2005* (OECD, Paris).

future) that excites such attention both in terms of the competitive challenges posed and economic opportunities offered to other countries in the Asia region and beyond. In both countries average per-capita incomes are still sufficiently low and the pool of under-utilised labour sufficiently large to expect that output and export growth rates can be sustained for a long time to come. Growing incomes and production will, however, bring with them increased demand for imported consumer, intermediate and capital goods but also alter the capacity to diversify further beyond labour-intensive goods.

Export Composition

The composition of China and India's current exports are summarised in Appendix Tables A17, A19 and A20. Manufactures are more dominant in China than India, though agricultural and natural resource exports are less important than manufactures. In both countries, exports are concentrated in labour-intensive (e.g. textiles and clothing) and standardised processes. But in both there is also clear evidence of some upgrading taking place, with the share of machinery and equipment in exports increasing. If the experience of Japan and other Asian industrialising countries is to be a useful guide, then one can anticipate this upgrading from low- to high-skill labour intensive, and from standardised to more technologically intensive, processes (transportation equipment, chemicals, industrial machinery and consumer electronics) to continue. The movement into high technology exports that use highly skilled labour and require substantial research and development (e.g. as in pharmaceuticals and precision instruments) should be slower, if other Asian experience is a guide. But education quality and provision in both countries, especially in the higher education sector, is relatively good (given average per capita income) and one may therefore expect more rapid technological upgrading than in some of the other Asian economies.[7]

Import Growth and Composition

Tables A9 to A12 in the statistical appendix provide data on the growth and composition of imports of the two countries. For both there has been a substantial growth of goods and services imports since 1990. The ratio of imports (of goods and services) to GDP grew from 14.3 per cent in 1990 to 31.8 per cent in 2003 in China, and from 8.6 per cent to 16.0 per cent in India over the same period. As already pointed out, this has been driven in part by the growth of income and production and corresponding growth in demand for final, intermediate and capital goods. But trade policy reform has already played an influential role, as shown in Table 5 below. The tariff data gives a guide to ease of market access at the border at least. In China average tariffs for non-agricultural imports are less

[7] Malaysia, for example, nearly doubled the share of medium and high technology exports in total exports in a decade, i.e. from 37% in 1985 to 69% in 1996 (see World Development Report, 2000).

than 10 per cent and not therefore significantly above tariff levels in the industrialised countries. Average tariffs and tariff peaks are much higher in India (especially for agricultural imports) but India has significantly liberalised its non-tariff barriers to imports.

Table 5: Tariffs in China and India Compared

	%			
	Simple Average Rate		Maximum Rates	
	Agriculture	Non-Agriculture	Agriculture	Non-Agriculture
China	15.8	9.1	65	50
India	114.5	34.3	300	150

Source: World Trade Report, 2005

Data on the composition of imports differs according to source but it is evident that for both countries a significant proportion of imports are capital or intermediate goods going into export activities. Natural resource imports (oil and gas in particular) are also significant for both. Although agricultural products account for a relatively small share of imports, it is anticipated that this will grow; in China through growing income and further specialisation effects[8], and in India as pressure within the WTO to liberalise the agricultural sector increases, as it no doubt will quite quickly.

Direction of Trade

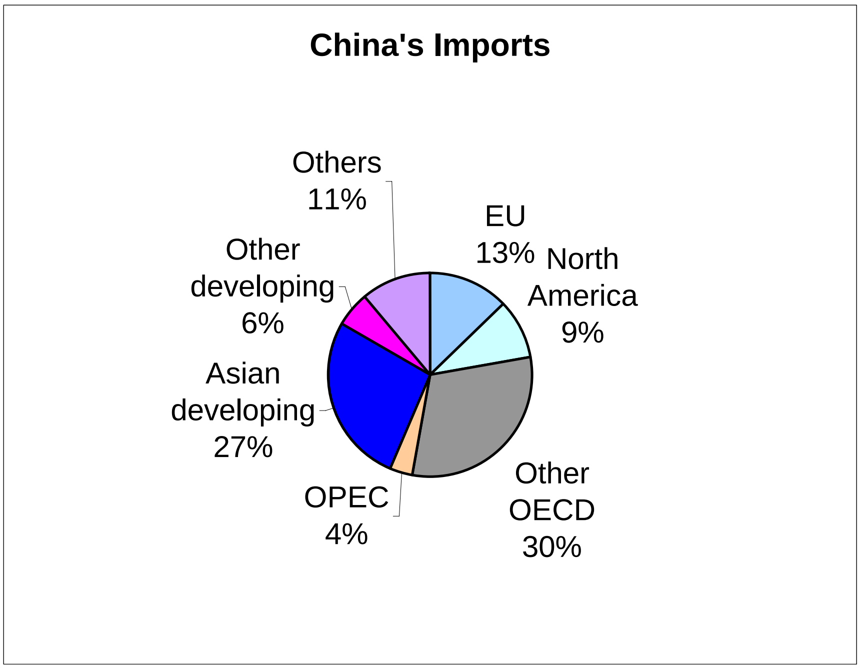
Chart 1 summarises the sources of India's and China's current imports and direction of their exports. A greater proportion of China's trade, both importing and exporting, is with the OECD. This no doubt reflects the more rapid industrialisation in China and greater share of manufactures in both China's imports and exports. Interestingly, however, the EU share of India's imports and exports is greater than that of China; geopolitical, language and historical factors may be relevant in accounting for the greater commercial linkages of the two countries with Europe and North America.

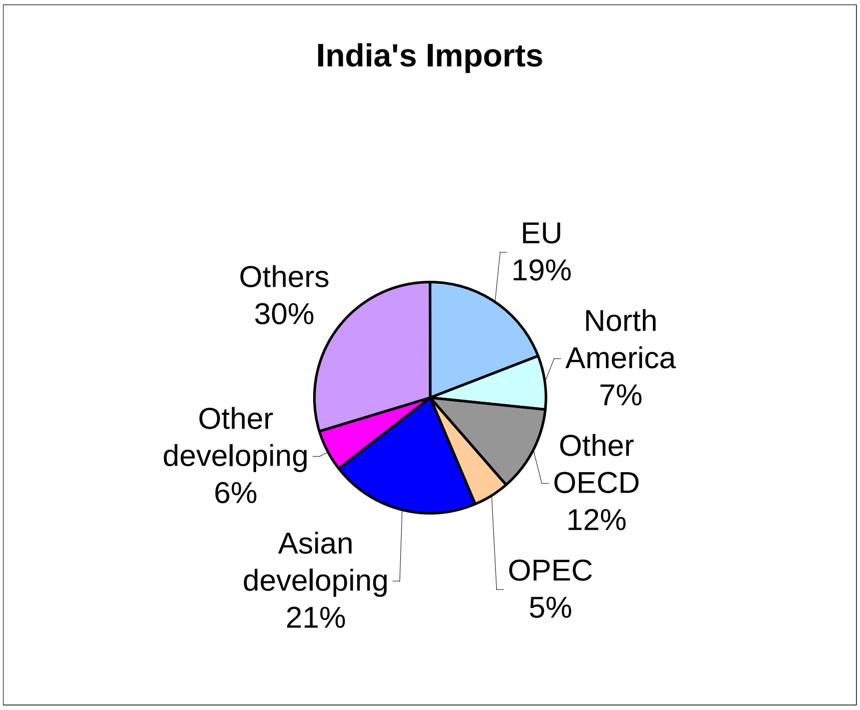
Turning specifically to the UK, its share of Indian imports is currently 4 per cent and just under 1 per cent of China's. In both, this share has declined over the last decade, from 5.4 per cent in India and 1.5 per cent in China.

[8] In the case of China it must be recognised that there is a considerable gap in average incomes between the coastal regions and the rest of China. The demand for consumer goods and services is already enormous in the coastal regions. Further growth in demand can be expected as catching-up and efforts to reduce poverty and regional inequality occurs.

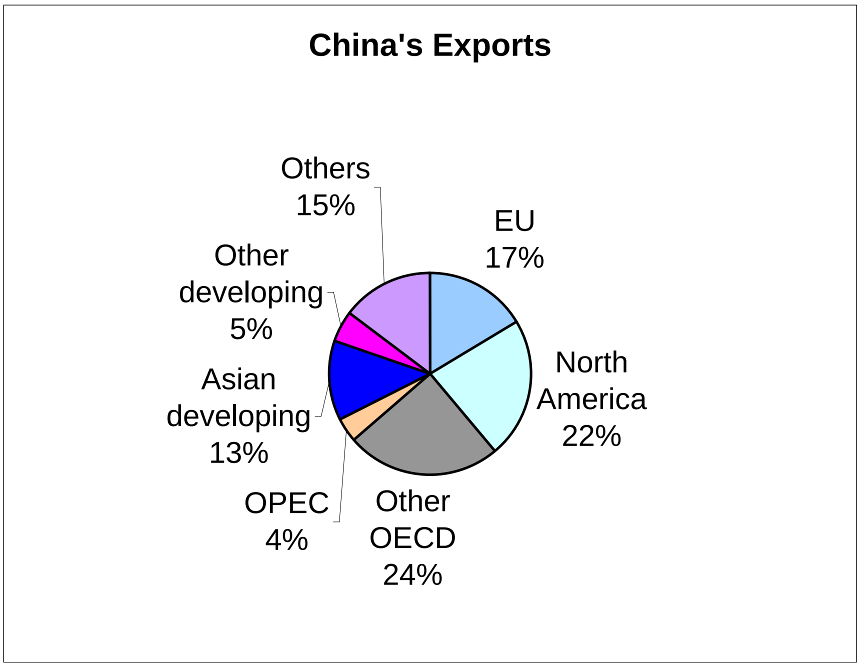
Chart 1: Direction of India and China's Trade (2003)

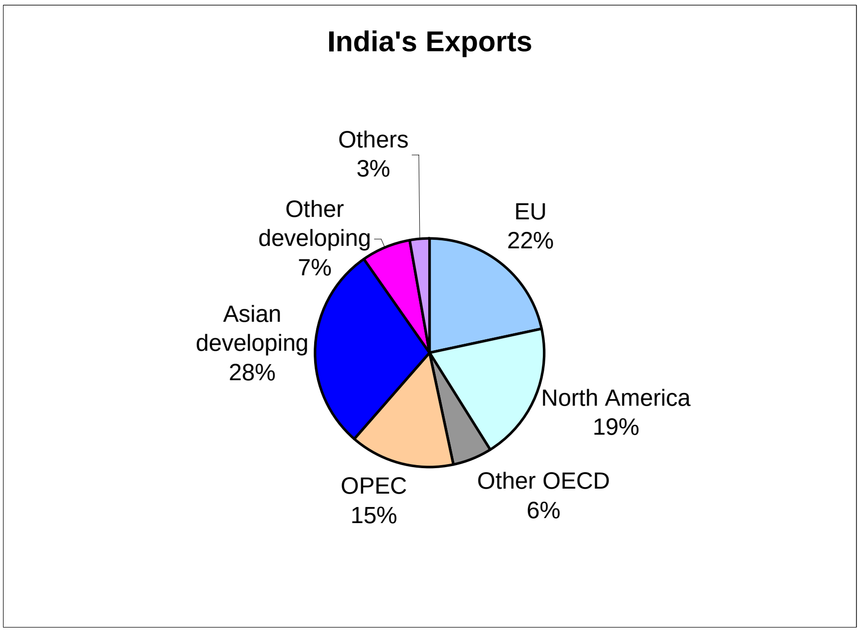
a) Imports





b) Exports





FDI Inflows and Outflows

Inward FDI has played a much greater role in opening the Chinese than the Indian economy. On average China was the destination for about 10 per cent of the world's FDI flows between 1992 and 1997. Although it has accounted for a lower share since, it remains a major destination (about 6 per cent on average each year).

By contrast, the volume of FDI inflows in India have been much smaller (see Appendix Tables A25 and A26), accounting since 1992 for less than 1 per cent of FDI inflows in every year. The export platform opportunities and business environment clearly appear much more attractive so far in China than India. As a result, foreign involvement is more evident in the former than the latter. In 2003 over 12 per cent of gross capital formation in China was by foreign investors; for India the comparable percentage was only 4 per cent.

The liberalisation and development of these two economies is also marked by their emerging role as a provider of outward FDI. Their shares of world FDI flows remain modest; less than 0.5 per cent in China and less than 0.2 per cent for India. The amounts of overseas investment are, however, growing in absolute terms as domestic firms increase their links with foreign suppliers and international production chains and increase their overseas marketing and distribution capabilities.

4. CHALLENGES FOR THE EAST MIDLANDS ECONOMY

As we have seen in the two previous Sections, the drivers of globalisation show no signs of abating. In fact, with the emergence of China and India, and the continued march of new technology, the globalisation of economic activity will accelerate. In the longer run this will almost certainly be associated with an increase in average living standards. But to maximise the benefits of globalisation, we have to try to anticipate and adjust to its challenges in order to minimise frictions; whilst at the same time recognising and exploiting the opportunities it brings along. In Section 5 we focus on the latter.

The sheer scale of the Chinese and Indian economies means they will pose a range of potentially acute challenges for the East Midlands economy. We see these as taking one or more of the following forms:

- *direct import competition*: the displacement of local production by imports from China and India;
- *indirect import competition*: the displacement of local production by outsourcing of activities to China and India;
- *direct export competition*: the displacement of exports from East Midlands enterprises by Chinese and Indian enterprises in third markets;
- *competition for inward investment*: the diversion of investment that would otherwise have come to the East Midlands, to China or India.

We evaluate each in turn.

Direct Import Competition:

As we have seen, aggregate imports from China and India to the EU and UK have grown rapidly and are expected to accelerate. Insofar as there is direct competition between these imports and production of East Midlands enterprises, this represents a direct competitive threat. In broad terms, the extent of this can be gauged by comparing the structure of exports from these two countries with the structure of production in the East Midlands, which we can glean from Tables A20, A22 and A24. Data constraints are such that these are necessarily broad aggregates. Nonetheless, what is clear is that the largest categories of exports from India are: handicrafts, engineering goods, garments, textiles and chemicals; those from China are machinery, electrical equipment and optical equipment, garments, textiles and metals. As we know from the Regional Economic Strategy (EMDA 2003), the East Midlands economy is more dependent on manufactures than the national economy, thus it is clearly vulnerable in some of these categories. Overall, they account for around 10 per cent of the region's output and 30 per cent if construction and services are excluded. It is likely that the threat of direct displacement of production from increased imports will be sharpest in garments, textiles, engineering goods and metals.

Indirect Import Competition:

Outsourcing of production has accelerated rapidly over the last decade, partly due to falling trade costs and partly to the fragmentation of production processes. This of course has been a calculated strategy on the part of many enterprises to deal with more intense competition, since outsourced processes invariably drive production to low wage economies. As more developing countries liberalise, more opportunities are created for outsourcing, most notably to China and India.

This is clearly another competitive threat and potentially another source of displacement of activity currently located in the East Midlands. And of course that threat starts from the East Midlands itself: after all, one strategy for meeting direct competition from imports, or competition for exports in third markets, is to drive down labour costs by outsourcing. Moreover, that threat should not be thought of as being specific to the manufacturing base. It also applies to the region's growing services sector: overseas call centres are a form of outsourcing in the finance and business services and communications sectors, two of the fastest growing sectors in the region. Although call centres in China do not represent a competitive threat, those in India do.

Direct Export Competition:

As the Regional Economic Strategy (RES) document points out, the East Midlands is one of the UK's more open regions, with exports amounting to 21.6 per cent of gross value added in 2003, compared to an average of 19.2 per cent for the UK. However, as in other regions of the UK, exports as a share of GVA have fallen since 2001, with slow growth in the Eurozone and Japan being the main driver of this.

Exporting activity is clearly a major contributor to regional economic activity and wealth creation. It is clearly also a major source of employment. Moreover, as recent research has shown, exporting is good for productivity. For a wide range of countries, the evidence points very clearly to exporting firms enjoying a clear productivity advantage over non-exporting firms. It is also the case that in the UK data there is some support for so-called learning by exporting. In other words, enterprises learn from best practice internationally and productivity is boosted further by being in export markets.[9]

As we saw in Section 2, exports from China and India, especially the former, are growing very fast and this clearly represents a major competitive threat to East Midlands exporters in third country markets. This is especially true of the United States, the UK's biggest market and the market where Chinese exports are growing fastest. Thus a key challenge to existing exporters will be in not losing market share to China and India.

C*ompetition for Inward Investment:*

Clearly any reduction in production due to displacement by imports or displacement of exports in third markets is likely to be associated with a decline in investment and investment is a core driver of growth. In addition to that threat, there is also the possibility that new investment, which would otherwise have come into the East Midlands, whether from UK enterprises or non-UK multinationals, goes to China or India. This would be against the backcloth of a decline in inward investment in recent years. Thus in 2003 investment by UK owned companies in the region was equivalent to 5.6 per cent of GVA, down from 8.5 per cent in 1998. There has also been a decline in foreign owned companies, from 1.5 per cent of GVA in 1998 to 1.2 per cent in 2002. It should however be noted that, given the slowdown in FDI globally over the last few years, there may be a cyclical element to this. If so, as and when growth accelerates in the Eurozone, US and Japan, some upturn might be expected.

[9] For a review of the evidence in general, see D. Greenaway and R. Kneller (2004); for evidence on the UK in particular, see S. Girma, D. Greenaway and R. Kneller (2004).

However, as we noted earlier, FDI is footloose, with multinationals moving assets to exploit location specific resource advantages such as plentiful supplies of relatively cheap unskilled labour, deep pools of relatively skilled labour or access to large local markets. China and India (especially the former) offer enormous advantages to multinationals seeking cheap unskilled labour and/or large local markets. The East Midlands economy simply cannot hope to compete on these grounds and that represents a threat. However, its flexible labour markets and proximity to a large pan-EU market do offer opportunities, as we discuss later and it will be vital to fine-tune policy where possible to exploit these.

5. OPPORTUNITIES FOR THE EAST MIDLANDS ECONOMY

The growth of production and incomes in two such highly populated countries must give rise to opportunities for expanding existing economic activities in the East Midlands and for creating new economic activities. These include:

- Scope for *increased exports of goods and services* directly from the East Midlands to China and India.

- Scope for increased sales and production through *increased indirect or third market exporting.*

- Scope for sustaining or increasing the competitiveness of existing sales in home or other export markets through *outsourcing to India and China or accessing their lower cost intermediate inputs*.

- Scope for *inward investment in the East Midlands* from China and India.

Detailed product, market and investment opportunities analysis is beyond the scope of the present study. We aim instead to consider the broad mapping of the East Midland’s production structure with Chinese and Indian trade structures to illustrate the above types of opportunities in general terms.

Direct Export Opportunities

In Section 3 we outlined the broad structure of China’s imports and considered how rapid growth was increasing demand for agricultural products and raw materials, and for intermediate inputs in more technologically advanced products. A relatively low level of border protection against imports was also identified. The East Midlands industrial structure is summarised in Table A24. Over 23 per cent of production is accounted for by agriculture and food, drink etc. Although imports of products form these sectors are still low in China (less than 4 per cent of commodity imports in 2003), this is a large market in absolute terms and it can be expected that growing incomes and growing demand for variety (combined with greater specialisation away from agriculture) will increase its share of food and agricultural imports.

A substantial proportion of China's imports are of intermediate inputs of machinery and equipment and electrical goods. Nearly 12 per cent of East Midlands production in 2004 was in these sectors. There are clearly opportunities for East Midland producers to supply more skill- or technology-intensive components that can be assembled by lower wage Chinese manufacturers. Indeed, similar opportunities may exist across a wide range of East Midlands manufacturing (e.g. transport equipment, chemicals and pharmaceuticals). Equally, there may be services export opportunities in China, for example in business and financial services. Opportunities for inward tourism will also grow as incomes grow and attitudes to foreign travel by the Chinese change. In this particular regard, the University of Nottingham's branch campus in Ningbo, China, and the twinning arrangements between the cities of Nottingham and Ningbo offer a unique shop window for the region.

Turning potential into increased sales, production and employment requires that productivity and competitiveness are at international levels. But building commercial links also requires good information sources for East Midlands firms and support available for building commercial contacts and in overcoming language, cultural and business methods barriers. (This type of policy support is discussed more fully in Section 6.)

Indirect and Third Market Exporting

Given the increasing interdependencies of regions and countries in an increasingly globalised world, the opportunities created by the growth and increasing openness of China and India do not only need to come about through direct routes. East Midlands producers and service providers sell their goods and services to other regions in the UK and other countries besides China and India. Where incomes increase in these regions or countries because of growing exports to China and India, there are additional sales opportunities to these regions and countries. Alternatively the East Midlands may be a source of intermediate and services inputs into activities in other regions and countries that are supplying the Chinese and Indian markets. Growth in direct sales to China or India from non-East Midlands sources may as a result imply increased indirect exporting for the region.

These types of indirect exporting or third market effects can be explored through input-output linkages of the East Midlands economy but also require forecasts of how China and India are changing incomes and production in other regions and countries of significance for the East Midlands. Again such modelling is feasible but beyond the scope of the present study.

Outsourcing Opportunities

Outsourcing can be viewed as a threat or challenge, since it tends to take part of the value-added chain away from existing production sites. Certainly one would anticipate further shifts towards lower wage economies like China and India of those stages of production or of business and consumer services that are relatively labour intensive (especially low skill intensive). Equally, it may offer opportunities to sustain the competitiveness of other stages of production. Rather than seeing the disappearance of all stages of production where vertical fragmentation or break-up of production processes is not possible, increasing competitiveness and international commercial engagement by China and India offers opportunities for East Midland businesses to look for cost-reducing outsourcing of specific stages of production. Reduced international transaction (internet, phone, travel and transport) costs increase these opportunities but greater commercial engagement and trust are also required to ensure product reliability and consistency of delivery.

In addition to support with gaining information and developing commercial links, outsourcing opportunities may also give rise to the need for adjustment support measures. Greater fragmentation of processes may require reorganisation of businesses, of production technologies and production line management and new managerial and technical skills. Outsourcing opportunities imply new challenges to restructure within industries and within firms. The types of support that may be required for this are considered further in Section 6.

Inward Investment Opportunities

As explained in Section 3, China in particular is beginning to export capital and acquire foreign direct investment. It is not a major FDI provider as yet but is likely to become a much bigger player in future. As China's (and India's) exports grow and diversify, there will be growing motives for these two giants to invest abroad. Selling abroad requires a marketing and distribution capacity that Chinese and Indian exporters may want to control and manage directly. We know from Japan's post-war development that this was an important motive in the growth of Japanese outward investment. Similarly, we know from Japanese experience that access to traditional business service suppliers encouraged financial institutions to follow Japanese firms' distribution and production activities. It may well be that the Chinese and Indian models of business organisation are different from those of Japan but similar motives will exist.

In upgrading export products and technologies, Chinese and Indian enterprises are likely to engage more extensively and deeply in international production chains and collaborations. Accessing knowledge or specific skills may also be through foreign acquisition. In just the same way that firms in the East Midlands may have incentives to shift unskilled labour intensive stages of production to China, Chinese firms have an incentive to shift skilled or technology-intensive stages of production to where these factors are more abundant. They could do this through outsourcing and arms length trade but may internalise this process through outward FDI. Outward FDI could also be viewed by some as a defensive response to the threat of trade barriers. Again there is evidence to suggest that some Japanese FDI in the US and EU was a response to actual or perceived trade barriers (including anti-dumping action) against rapidly growing Japanese exports. It is likely that similar pressures and motives for outward FDI will emerge as China and India's share of world exports grow and this triggers defensive responses. With regard to the latter, we have already noted the recent agreement on textiles and clothing. It would be unwise to take assurances regarding the short-term nature of this voluntary export restraint at face value: after all, the MFA started out as the 'Short Term Agreement on Cotton Textiles' in 1962! This could offer a basis for encouraging Chinese manufacturers to set up in the region as a platform for supplying the broader EU market. Moreover, restraints to market access are not confined to textiles and clothing. Over the last ten years there have been over 400 anti-dumping initiations against China, with the largest proportion originating in the EU. Almost a quarter of all initiations are against China and a very high proportion (75 per cent) lead to actual measures. It is hard to see this changing, which may also provide a basis for encouraging barrier jumping FDI into the East Midlands.

Beyond barrier jumping sectors, it is difficult to be precise about which other sectors are most likely to be future recipients of foreign FDI from China and India, or at least to be competitors with other regions in the UK and EU for such inward FDI. The previous discussion does suggest that important motives for investment would be access to foreign know-how and skills, or to support direct exporting activities and to access the wider EU market. In which case one might anticipate the R&D intensive sectors or business and financial services sectors as the most likely targets for inward FDI (through either acquisition or greenfield development).

6. SUPPORTING ADJUSTMENT TO GLOBALISATION

The previous two sections have identified challenges and opportunities associated with globalisation in general and the emergence of China and India as global economic players in particular. The extent of those challenges and opportunities is not, however, independent of economic conditions and policies in the UK and East Midlands. Further, it is not the case that the appropriate policies and conditions conducive to dealing with the challenges of globalisation are different to those required to take best advantage of the opportunities arising out of globalisation. Adjusting to global sources of change and developing new economic activities or new ways of doing existing activities are two sides of the same coin. Policies and economic institutions need to support adaptability and flexibility of business organisations, production processes and individuals working within businesses and on production lines. There is a considerable amount of evidence from both developed and developing countries that policies that support rather than resist economic adjustment are more likely in the long run to foster growth in productivity, employment and incomes. The Multi-Fibre Arrangement (and its predecessors) is a classic case in point: the patchwork of quantitative restrictions in global textiles and clothing markets which were maintained for over 40 years only slowed adjustment, denying consumers access to cheap clothing but ultimately failing to save jobs.

It is also important to recognise that in a dynamic economy globalisation is not the only source of churn, i.e. businesses declining and jobs relocating. Nor indeed is it generally the most important source. Other sources include changes in technology, changes in consumer demand, incompetent management and bad policy. Research in the US and Europe suggests these account for 80-95 per cent of job turnover, with globalisation accounting for 5 to 20 per cent. This does not mean that competition from China and India is irrelevant but it does mean we have to keep these pressures in perspective.

Much of what creates or fosters an environment conducive to adjustment and change is determined at national level. The stability and predictability of macroeconomic policies and conditions is, for instance, of vital importance to the willingness and ability of businesses and workers to make long-term investment decisions about new technologies and products and gaining new skills. The presence of good infrastructure (for example, transport and communications) and effective institutions (for example, customs clearance processes and business development support) in promoting trade and inward investment are of similar importance. The national environment in terms of industrial relations and of the types of social safety nets and labour retraining support measures is also of critical importance in fashioning the flexibility of labour markets and mobility of workers (mobility, that is, between jobs, skills and locations).

One issue in the context of this Report is whether there are ways in which policies and support at the regional level can add to the East Midlands' ability to cope with adjustment and help create more benefits from globalisation in general and from the emergence of China and India in particular. In designing the East Midlands' strategic response to these two new global players, one needs to consider whether there are ways of:

a) *making the East Midlands labour markets and businesses more adaptable and flexible*: survey evidence confirms consistently that flexible labour markets are an attractor rather than deterrent for inward investment.
b) *promoting greater skills and technology-upgrading*: as China and India cannot be beaten on wages of unskilled labour, upgrading and upskilling help minimise adjustment costs and maximise new opportunities.
c) *making the infrastructure and institutions in the East Midlands particularly helpful in supporting inward investment and promoting exports and engagement in international production activities:* as noted earlier, firms that globalise are higher productivity firms, promoting exporting and FDI is promoting productivity growth.
d) *providing better information about market opportunities in China and India:* China and India offer huge potential but, because of distance and language, market intelligence is costly to acquire, especially for SMEs.
e) *promoting stronger commercial links between the East Midlands and these countries*[10]*:* given the importance of networks, activities that promote the region's visibility, relative to competing regions, would pay dividends.
f) *Targeting sectors where China and India face trade barriers:* there are bound to be opportunities to take advantage of locating production in the East Midlands to access the wider EU market.

Clearly we cannot devise an action plan for the East Midlands but rather to point to areas (as above) where strategic thinking is required. It is evident, however, given the recent and rapid nature of China and India's entry on the world stage, that there will be a need to improve information and dissemination on commercial opportunities and challenges for increased promotional activity (promoting the East Midlands as a location and its goods and services) in these two countries and for support with increasing the capacity of the East Midlands to engage commercially with these countries (i.e. support with overcoming cultural, linguistic and legal/institutional barriers).

Some of these challenges can be addressed though existing infrastructure, for example by reviewing the current focus of, and investment in, promoting inward investment and the learning and skills agenda. In addition, in developing this

[10] These issues are also considered in some depth in Martin (2005).

strategic thinking with regard to China and India, there are two distinctive features of the region that merit recognition, namely that:

a) the East Midlands is home to a large number of people of Asian origin, with ongoing commercial engagement and contact with India in particular; the significance of this is that academic research highlights the importance of migration and kinship ties to establishing and sustaining trading networks
b) universities in the region have a considerable amount of expertise (policy, analytical and language support) on China and a large number of Chinese students. The University of Nottingham has also recently opened a branch campus in Ningbo, located in China's fastest growing province. Table 6 below provides some information on the number of students from China and India at universities in the region.

Table 6: Overseas Students from China and India at East Midlands Universities

a) China

Institution	2002-2003	2003-2004
De Montfort University	120	155
University of Derby	175	200
University of Leicester	380	535
University of Lincoln	105	35
Loughborough University	565	1010
University College, Northampton	75	150
Nottingham Trent University	115	215
University of Nottingham	875	1290
TOTAL	**2410**	**3585**

b) India

Institution	2002-2003	2003-2004
De Montfort University	145	180
University of Derby	90	60
University of Leicester	60	80
University of Lincoln	145	30
Loughborough University	65	75
University College, Northampton	110	80
Nottingham Trent University	50	45
University of Nottingham	190	270
TOTAL	**850**	**820**

Source: HESA

In both cases these offer access to resources, experience and skills. With them come opportunities to lower cultural and linguistic barriers and promote commercial links and training opportunities. The local community with experience of trading or commercial engagement with India could be drawn into promotional activity.[11] Similarly, Chinese students at universities in the region (there were over 3,500 in 2003/4) might be provided with opportunities to find out more about business activity in the region (e.g. through placement schemes). Workshops or conferences organised by EMDA on themes relating to East Midlands-China commercial interests might be held at the Ningbo campus. This creates opportunities for specific training and for increasing awareness and experience of China and offers a means of connecting the region with what will before too long be the largest economy in the world.

7. CONCLUSIONS

The terms of reference for this Report asked us to do three things: review the literature on the process of globalisation and development of China and India; evaluate available databases to illustrate the process of globalisation; and set out the challenges posed for the East Midlands.

As we have seen, although globalisation is not a new phenomenon for either the world economy or the UK, the wave we have experienced over the last 30 years is distinctive both for its speed and reach. Speed and reach will be extended with the emergence of China and India. Although the globalisation process crates long run benefits by giving consumers access to a wider range of products, creating jobs, raising real incomes and so on, it does create adjustment frictions. Import competition causes businesses to downsize or close, with consequent loss of jobs. But is also offers opportunities to develop new products and access new markets. Moreover, robust evidence shows that firms that globalise, whether by exporting or engaging in FDI, are more productive than those that do not. The key challenge for the East Midlands economy will be to accelerate the pace of adjustment to change so that: resources are more rapidly re-deployed from failing to successful enterprises; the duration of unemployment during transitions is shortened; and new investment is attracted into the region.

Successfully meeting these challenges will not be easy, because the region is in competition with other regions for investment and jobs. That being so, the key to success will be in developing strategies which build on region specific advantages and aggressively marketing those advantages.

[11] There is a body of empirical evidence now that establishes the pro-trade creating effects of kinship ties and cross-country networks (J. E. Rauch (2001) and J. E. Rauch and V. Trindade (2002)).

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APPENDIX: SOURCES OF DATA ON GLOBALISATION FOR CHINA AND INDIA

All of the major international agencies collect and publish information and data on globalisation processes, in most cases in both print and electronic format. Clearly where one sources information depends upon the data being accessed.

The *OECD Handbook on Economic Globalisation Indicators* (OECD 2005) is the most comprehensive source of information on potential globalisation concepts and their statistical counterparts. It also provides information on data sources but does not offer much by way of data series themselves. Information is available at www.oecd.org .

Trade data is most reliably accessed through the World Trade Organisation's *International Trade Statistics*, which is published annually and therefore yields a time series. This is available on line at www.wto.org , back to 1998. In addition to reporting aggregate data on imports and exports, it disaggregates to regional flows and broad commodity/service categories. Trade flows of individual countries can also be tracked through this source.

Data on trade barriers can be accessed through UNCTAD and the World Bank. The latter reports average tariffs on broad commodity aggregates on www.worldbank.org . UNCTAD provides more detailed information on both tariff and non-tariff barriers in its TRAINS database (which is only available to subscribers). The most comprehensive information on trade barriers and the commercial environment more generally is in the WTO's *Trade Policy Reviews*. These are regular 'audits' of trade policy of WTO Members ranging from every two years for the US, EU and Japan, through to every seven years for the smallest Members. They are only available on subscription. As yet a *Trade Policy Review* has not been published for China; the last Review of India was in 2002.

Data on cross-border investment is available through a number of sources. The most comprehensive is the annual *World Investment Report*, published by the UN Centre for Transnational Corporations, www.unctc.unctad.org . This reports investment inflows, outflows, inward stocks and outward stocks. Moreover, information is disaggregated by region and country. The series runs back to 1991.

The most comprehensive and easily accessed information on production structures across countries and their evolution is the World Bank's *World Development Indicators*. This is very comprehensive and available on-line. Its annual supplement, the *World Development Report* is available on subscription. Another readily available source of country specific, comparative data is the CIA's *World Factbook*, which is available on-line at www.cia.gov

Information on migration is clearly collected by national authorities, though illegal immigration means that reported numbers understate actuals to a greater or lesser degree. Comparative data is collected and disseminated by the Migration Policy Institute and its *Global Data Centre* is available on-line at: www.migrationinformation.org/GlobalData/ . As well as reporting numbers on a comparative basis back to 1991, this also breaks down migrants by origin.

The international organisations provide information and data on China and India. In addition, they regularly produce country specific analyses and reports. The most comprehensive data source on China is the annual *China Statistical Yearbook*, prepared by the National Bureau of Statistics for China, details of which are at: www.stats.gov.cn . The equivalent publication for India is the *Handbook of Statistics of the Indian Economy*, published by the Reserve Bank of India, details at: www.rbi.org.in/home.aspx . Both publications report information on production, consumption, balance of payments and so on.

Naturally, the emergence of China and India has stimulated considerable research activity in the academic community. The two most targeted journals covering this literature are the *China Economic Review* and *Journal of Asian Economics*, whilst *The World Economy* is an excellent source of accessible analysis of policy developments.

Statistical Appendix

Table A1 : World Exports in Merchandises (Value)

Unit : US dollar at current prices (100 millions)

Reporter	World	China	India
1990	34,487	620	179
1991	35,149	719	177
1992	37,657	849	196
1993	37,771	917	216
1994	43,257	1,210	250
1995	51,616	1,487	306
1996	53,913	1,510	331
1997	55,774	1,828	350
1998	54,962	1,837	334
1999	57,068	1,949	357
2000	64,446	2,492	424
2001	61,858	2,661	434
2002	64,811	3,256	493
2003	75,462	4,384	571
2004	91,235	5,934	725

Source: WTO

Table A2: Share of World Exports in Merchandise(%)

Reporter	World	China	India
1990	100	1.8	0.5
1991	100	2.0	0.5
1992	100	2.3	0.5
1993	100	2.4	0.6
1994	100	2.8	0.6
1995	100	2.6	0.6
1996	100	2.8	0.6
1997	100	3.3	0.6
1998	100	3.3	0.6
1999	100	3.4	0.6
2000	100	3.9	0.7
2001	100	4.3	0.7
2002	100	5.0	0.8
2003	100	5.8	0.8
2004	100	6.5	0.8

Source: WTO; own calculation

Table A3: World Exports in Commercial Service(value)

Unit: US dollar at current price(100 millions)

Reporter	World	China	India
1990	7,084	57	46
1991	8,282	69	49
1992	9,222	91	49
1993	9,394	110	50
1994	10,360	164	60
1995	11,893	184	68
1996	12,781	206	72
1997	13,295	245	89
1998	13,507	239	111
1999	13,979	262	140
2000	14,852	301	175
2001	14,906	329	208
2002	15,923	394	233
2003	18,050	464	280
2004	20,997		

Source: WTO

Table A4: Share of World Exports in Services(%)

Reporter	World	China	India
1990	100	0.7	0.6
1991	100	0.8	0.6
1992	100	1.0	0.5
1993	100	1.2	0.5
1994	100	1.6	0.6
1995	100	1.5	0.6
1996	100	1.6	0.6
1997	100	1.8	0.7
1998	100	1.8	0.8
1999	100	1.8	1.0
2000	100	2.0	1.0
2001	100	2.2	1.4
2002	100	2.5	2.1
2003	100	2.6	1.6
2004	100		

Source: WTO; own calculation

Table A5: Annual Percentage Change of World Exports of Merchandise Goods

Reporter	World	China	India
1990			
1991	1.9	1.6	-1.1
1992	7.1	1.8	10.7
1993	0.3	8.0	10.2
1994	4.8	32.0	15.7
1995	1.9	22.8	22.4
1996	4.5	1.5	8.2
1997	3.5	21.0	5.7
1998	-1.4	0.5	-4.6
1999	3.8	6.1	6.9
2000	1.3	27.8	18.8
2001	-4.0	6.8	2.4
2002	4.8	22.3	13.6
2003	1.6	34.6	15.8
2004	2.1	35.4	27.0

Source: WTO; own calculation

Table A6 Annual Percentage Change of World Exports of Services

Reporter	World	China	India
1990			
1991	6.1	21.0	6.5
1992	11.3	31.9	0.0
1993	1.9	20.9	2.0
1994	10.3	49.1	20.0
1995	14.8	12.0	13.3
1996	7.5	12.0	5.9
1997	4.0	18.9	23.6
1998	1.6	-2.4	24.7
1999	3.5	9.6	26.1
2000	6.2	14.9	25.0
2001	0.4	9.3	18.9
2002	6.8	19.8	12.0
2003	13.3	17.8	20.1
2004	16.3		

Source: WTO; own calculation

Table A7: Share of World Exports in Merchandise(%); A Historical Look

Reporter	World	China	India
1948	100	0.9	2.2
1953	100	1.2	1.3
1963	100	1.3	1.0
1973	100	1.0	0.5
1983	100	1.2	0.5
1993	100	2.5	0.6
2003	100	6.0	0.8

Source: WTO

Table A8: Share of World Imports in Merchandise(%); A Historical Look

Reporter	World	China	India
1948	100	1.1	3.1
1953	100	1.7	1.4
1963	100	0.9	1.5
1973	100	0.9	0.5
1983	100	1.1	0.7
1993	100	2.8	0.6
2003	100	5.5	0.9

Source: WTO

Table A9: Indicators for India(value)

Unit: US dollar at current prices(100 millions)* unless stated otherwise

* except FDI data in millions

Indicators	GDP (constant)	GDP (current)	Exports of Goods and Services	Goods Exports	Service Exports	Imports of Goods and services	Goods Imports	Services Imports	FDI, net inflows (millions)	FDI, by India (millions)
1990	2,680	3,169	226	182	46	271	234	46	236	236
1991	2,704	2,669	230	180	49	230	211	49	73	-0.04
1992	2,847	2,442	219	200	49	238	229	67	276	-0.01
1993	2,986	2,739	274	220	51	274	241	65	550	0.4
1994	3,209	3,226	324	255	60	333	297	82	973	83
1995	3,454	3,552	391	312	68	433	380	102	2,143	117
1996	3,709	3,854	408	337	72	454	438	111	2,426	276
1997	3,875	4,097	445	357	91	496	457	124	3,577	113
1998	4,107	4,138	464	341	117	534	448	145	2,634	47
1999	4,400	4,470	525	369	145	613	456	173	2,169	79
2000	4,574	4,574	635	431	181	670	553	199	2,496	555
2001	4,809	4,785	645	446	213	675	520	231	3,768	788
2002	5,006	5,102	777	525	250	796	654	182	3,700	488
2003	5,437	6,006	906	630	276	966	797	169	4,269	-

Source: World Bank

Table A10: Indicators for India (annual percentage change)

Indicators	GDP (constant)	Exports of Goods and Services	Goods Exports	Service Exports	Imports of Goods and services	Goods Imports	Services Imports	FDI, net inflows (millions)	FDI, by India (millions)
1990									
1991	0.9	1.5	-1.1	6.5	-15.3	-10.0	-2.4	-69.0	??
1992	5.3	-4.5	10.6	0.2	3.6	8.7	13.3	276.2	??
1993	4.9	25.1	10.0	3.5	15.1	5.1	-3.5	99.1	??
1994	7.4	17.8	15.9	18.2	21.6	23.1	26.2	76.8	20,605
1995	7.6	20.8	22.4	12.2	29.9	27.9	25.2	120.2	41.0
1996	7.4	4.4	8.0	6.8	4.7	15.3	8.8	13.2	135.9
1997	4.5	8.9	5.8	25.9	9.4	4.4	22.4	47.5	-59.1
1998	6.0	4.4	-4.6	28.3	7.7	-2.0	26.9	-26.4	-58.4
1999	7.1	13.2	8.2	24.1	14.8	1.6	18.8	-17.7	68.1
2000	3.9	20.9	17.0	25.3	9.3	21.4	15.4	15.1	602.5
2001	5.1	1.5	3.4	17.3	0.7	-6.0	16.1	51.0	42.0
2002	4.1	20.4	17.7	17.0	18.0	25.9	-21.3	-1.8	-38.1
2003	8.6	16.6	19.9	10.6	21.3	21.8	-7.0	15.4	-

Source: World Bank; own calculation only on FDI by China

Table A11: Indicators for India (% of GDP)

Indicators	Trade	Trade in Goods	Exports of Goods and Services	Imports of Goods and services
1990	15.7	13.1	7.1	8.6
1991	17.2	14.3	8.6	8.6
1992	18.7	17.7	9.0	9.8
1993	20.0	16.2	10.0	10.0
1994	20.4	16.1	10.0	10.3
1995	23.2	18.4	11.0	12.2
1996	22.4	18.4	10.6	11.8
1997	23.0	18.7	10.9	12.1
1998	24.1	18.5	11.2	12.9
1999	25.5	20.5	11.8	13.7
2000	28.5	19.6	13.9	14.6
2001	27.6	13.5	13.5	14.1
2002	30.8	15.2	15.2	15.6
2003	30.5	14.5	14.5	16.0

Source: World Bank

Table A12: Indicators for china (value)

Unit: US dollar at current prices (100 millions) unless stated otherwise

Indicators	GDP (constant)	GDP (current)	Exports of Goods and Services	Goods Exports	Service Exports	Imports of Goods and services	Goods Imports	Services Imports	FDI, net inflows	FDI, by China
1990	4,127	3,546	679	515	58	555	423	43	35	8
1991	4,507	3,766	789	58	70	653	502	41	44	9
1992	5,147	4,182	942	696	92	868	644	94	112	40
1993	5,842	4,318	1,026	757	112	1,118	863	120	275	44
1994	6,578	5,425	1,374	1,026	166	1,272	953	163	338	20
1995	7,269	7,003	1,680	1,281	191	1,519	1,101	252	358	20
1996	7,966	8,165	1,717	1,511	206	1,541	1,315	226	402	21
1997	8,667	8,982	2,072	1,827	246	1,644	1,364	280	442	25
1998	9,343	9,463	2,074	1,835	239	1,636	1,369	267	438	26
1999	10,007	9,914	2,210	1,947	262	1,903	1,587	316	388	18
2000	10,807	10,807	2,796	2,491	304	2,507	2,147	360	384	9
2001	11,618	11,757	2,994	2,611	333	2,713	2,321	393	442	68
2002	12,582	12,710	3,654	3,257	397	3,280	2,815	465	493	25
2003	13,752	14,170	4,850	4,384	467	4,489	3,936	553	535	63

Source: World Bank

Table A13: Indicators for china(annual percentage change)

Indicators	GDP (constant)	Exports of Goods and Services	Goods Exports	Service Exports	Imports of Goods and services	Goods Imports	Services Imports	FDI,net inflows	FDI, by China
1990									
1991	9.2	16.1	14.4	19.2	17.7	18.5	-5.31	25.2	12.5
1992	14.2	19.4	19.4	32.5	32.8	28.3	128.9	155.5	344.4
1993	13.5	9.0	9.0	21.0	28.9	34.1	27.6	146.6	10.0
1994	12.6	33.8	33.8	48.5	13.8	10.4	35.4	22.8	-54.5
1995	10.5	22.3	22.3	15.1	19.4	15.5	54.8	6.1	0.0
1996	9.6	2.2	2.2	7.7	1.5	19.5	-10.5	12.1	5.0
1997	8.8	20.7	20.7	19.3	6.7	3.7	23.8	10.1	19.0
1998	7.8	0.1	0.1	-2.7	-0.5	0.3	-4.6	-1.1	4.0
1999	7.1	6.5	6.5	9.9	16.3	15.9	18.4	-11.4	-30.8
2000	8.0	26.5	26.5	15.9	31.7	35.2	14.1	-0.9	-50.0
2001	7.5	7.1	7.1	9.5	8.2	8.1	9.0	15.2	655.6
2002	8.3	22.0	22.0	19.2	20.9	21.3	18.5	11.5	-63.2
2003	9.3	32.7	32.7	17.6	36.9	39.9	18.9	8.5	152.0

Source: World Bank; own calculation only on FDI by China

Table A14: Indicators for China(% of GDP)

Indicators	Trade	Trade in Goods	Exports of Goods and Services	Imports of Goods and services
1990	31.9	32.5	17.5	14.3
1991	35.5	36.0	19.4	16.1
1992	37.5	39.6	19.5	18.0
1993	35.7	45.3	17.1	18.6
1994	48.8	43.6	25.3	23.4
1995	45.7	40.1	24.0	21.7
1996	39.9	35.5	21.0	18.9
1997	41.4	36.2	23.1	18.3
1998	39.2	34.2	21.9	17.3
1999	41.5	36.4	22.3	19.2
2000	49.1	43.9	25.9	23.2
2001	48.5	43.3	25.5	23.1
2002	54.8	48.8	28.9	25.9
2003	66.1	60.1	34.3	31.8

Source: World Bank

Table A15: India's trade(Direction of Exports)

Unit: US dollar at current prices (millions)

Group	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
(1) OECD	**10,248**	**10,337**	**11,209**	**12,648**	**15,443**	**17,705**	**18,601**	**19484**	**19,264**	**21,106**	**23,473**	**21,622**	**26,382**	**29,517**
1.1 EU	4,989	4,827	5,246	5,797	7,030	8,708	8,655	9,144	8,946	9,382	10,411	9,846	11,523	13,817
1.2 North America	2,830	3,110	3,707	4,226	5,288	5,826	6,908	7,236	7,673	8,974	9,961	9,098	11,594	12,220
1.3 Asia and Oceania	1,895	1,878	1,691	2,020	2,427	2,652	2,457	2,409	2,096	2,153	2263	1,991	2,436	2,376
1.4 Other OECDs	535	522	565	605	698	519	581	696	547	597	838	687	830	1,103
(2) OPEC	**1,020**	**1,562**	**1,784**	**2,382**	**2,429**	**3,097**	**3,229**	**3,527**	**3,551**	**3,896**	**4,850**	**5,224**	**6,885**	**9,487**
(3) Eastern Europe	**3,243**	**1,953**	**815**	**1,001**	**1,057**	**1,340**	**1,098**	**1,283**	**1,053**	**1,293**	**1,318**	**1,255**	**1,248**	**1,539**
(4) Developing Countries	**3,099**	**3,587**	**4,236**	**5,798**	**6,969**	**9,198**	**10,036**	**10,312**	**9,221**	**10,460**	**13,013**	**13,536**	**17,862**	**22,557**
4.1 Asia	2,610	3,016	3,482	4,892	5,707	7,308	8,134	7,972	6,845	8,206	10,037	10,332	13,981	18,271
4.2 Africa	394	441	567	661	878	1,513	1,421	1,638	1,762	1,555	1,956	2,261	2,576	3,053
4.3 Latin America	95	130	188	244	385	378	481	702	615	700	1,018	942	1,306	1,234
(5) Others	**534.0**	**427.0**	**488.0**	**409.0**	**432.0**	**472.0**	**504.0**	**399.0**	**130.0**	**67.0**	**1,906**	**2,190**	**342**	**354**
Total trade	**18,145**	**17,865**	**18,537**	**22,238**	**26,330**	**31,795**	**33,470**	**35,006**	**33,219**	**36,822**	**44,566**	**43,827**	**52,719**	**63,454**

Source: Handbook of statistics of Indian Economy

Table A16: India's trade (Source of Imports)

Unit: US dollar at current prices (millions)

Group	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
(1) OECD	**13,773**	**10,522**	**12,269**	**13,084**	**1,732**	**19,209**	**19,457**	**21,336**	**21,860**	**21,364**	**20,158**	**20,614**	**23,301**	**28,953**
1.1 EU	7,607	5,666	6,603	7,002	7,115	10,303	10,625	10,681	10,724	10,968	10,510	10,437	12,542	14,502
1.2 North America	3,235	2,275	2,553	2,971	3,171	4,243	3,999	4,138	4,026	3,944	3,412	3,679	5,015	5,453
1.3 Asia and Oceania	2,690	2,023	2,327	2,256	3,031	3,552	3,584	3,714	3,999	3,714	2,984	3,535	3,250	5,342
1.4 Other OECDs	782	559	787	855	1,415	1,112	1,248	2,803	3,111	2,738	3,251	2,990	2,500	3,656
(2) OPEC	**3,924**	**3,821**	**4,777**	**5,222**	**6,050**	**7,644**	**10,143**	**9,404**	**7,765**	**12,850**	**2,689**	**2,966**	**2,500**	**3,656**
(3) Eastern Europe	**1,822**	**992**	**554**	**563**	**968**	**1,674**	**1,103**	**1,115**	**864**	**995**	**850**	**947**	**1,140**	**1,628**
(4) Developing Countries	**4,490**	**4,074**	**4,281**	**4,435**	**6,902**	**8,145**	**8,427**	**9,626**	**11,895**	**14,542**	**11,516**	**12,776**	**15,688**	**20,084**
4.1 Asia	3,372	2,872	3,204	3,574	5,092	6,426	6,573	7,259	8,535	9,942	8,460	9,265	11,304	15,788
4.2 Africa	573	841	756	575	1,039	1,132	1,294	1,767	2,363	3,646	1,996	2,502	3,348	3,101
4.3 Latin America	546	361	321	287	772	587	560	601	725	936	701	1,009	1,036	1,195
(5) Others	**2.9**	**1.4**	**0.3**	**2.6**	**2.6**	**3.0**	**3.8**	**3.9**	**4.4**	**4.4**	**15,683**	**14,084**	**17,804**	**20,778**
Total trade	**24,072**	**19,411**	**21,822**	**23,306**	**28,654**	**36,675**	**39,132**	**41,485**	**42,389**	**49,671**	**50,537**	**51,413**	**61,412**	**77,032**

Source: Handbook of statistics of Indian Economy

Table A17: India's Exports of Principle Commodities

Unit: US dollar at current prices (millions)

Commodity	Primary Products	Manufactured Products	Petroleum Products	Others	Total Exports
1990	4,324	12,996	523	302	18,145
1991	4,132	13,148	415	170	17,865
1992	3,874	14,039	476	149	18,537
1993	4,916	16,657	398	268	22,238
1994	5,214	20,404	417	295	26,331
1995	7,257	23,747	454	583	31,795
1996	8,035	24,613	482	339	33,470
1997	7,687	26,547	353	420	35,006
1998	6,928	25,792	89	410	33,219
1999	6,524	29,714	39	545	36,822
2000	7,126	34,335	1,870	1,229	44,560
2001	7,164	33,370	2,119	1,174	43,827
2002	8,706	40,245	2,577	1,192	52,719
2003	9,746	47,616	3,519	2,574	63,454

Source: Handbook of Statistics of Indian Economy

Table A18: India's Imports of Principal Commodities

Unit: US dollar at current prices (millions)

Commodity	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
(1) Bulk Imports	**10,848**	**8,563**	**9,830**	**9,112**	**11,321**	**14,314**	**16,365**	**14,970**	**13,230**	**19,646**	**20,816**	**20,263**	**24,300**	**29,371**
1.1 Petroleum, Crude and product	6,028	5,325	6,100	5,734	5,928	7,526	10,036	8,164	6,399	12,611	15,650	14,000	17,640	20,569
1.2 Bulk consumption goods	557	275	507	327	1,144	970	1,214	1,483	2,524	2,417	1,443	2,043	2,411	3,059
1.3 Other bulk items	4,263	2,963	3,223	3,032	4,249	5,819	5,115	5,143	4,307	4,618	3,722	4,220	4,249	5,742
(2) Non-bulk imports	**13,225**	**10,878**	**12,052**	**14,914**	**17,334**	**22,631**	**22,767**	**26,694**	**29,159**	**30,025**	**29,721**	**31,150**	**37,113**	**47,662**
2.1 Capital goods	5,836	4,233	4,523	6,243	7,638	10,330	9,922	9,796	10,064	8,966	8,491	9,882	13,498	17,132
2.2 Mainly export related items	3,680	3,581	4,148	4,388	4,317	5,275	6,138	6,913	7,131	9,117	8,059	8,260	10,314	12,699
2.3 Others	3,709	3,034	3,372	3,564	5,379	6,773	6,707	9,985	11,963	11,942	12,721	13,008	13,301	17,831
Total Imports	**24,072**	**19,410**	**21,882**	**23,306**	**28,654**	**36,675**	**39,132**	**41,485**	**42,389**	**49,671**	**50,537**	**51,413**	**61,412**	**77,032**

Source: Handbook of Statistics of Indian Economy

Table A19: India's Exports in Manufactured Goods

Unit: US dollar at current prices (millions)

Commodity	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*
Leather and manufactures	1,149	1,269	1,278	1,299	1,611	1,752	1,606	1,657	1,661	1,590	1,944	1,910	1,848	2,025
Chemical and allied products	1,307	1,479	1,229	1,478	1,956	2,359	2,690	3,170	2,906	3,409	4,034	4,080	5,035	6,006
Plastic and linoleum products	111	112	149	336	47	585	539	514	471	604	915	987	1,222	1,739
Rubber, glass, paints, enamels and products	297	270	396	524	619	642	671	697	614	680	937	985	1,198	1,484
Engineering goods	2,250	2,253	2,480	3,038	3,508	4,391	4,963	5,336	4,464	5,152	6,819	6,958	9,033	12,213
Readymade garments	2,236	2,199	2,393	2,586	3,282	3,676	3,753	3,876	4,365	4,765	5,569	5,007	5,690	6,088
Textile yarn, fabrics, made-ups, etc.	1,540	1,804	1,900	2,140	3,045	3,523	4,057	4,355	3,725	4,189	4,889	4,468	5,085	5,511
Jute manufactures	166	159	123	124	151	186	155	187	138	126	151	128	188	232
Coir and manufactures	27	29	31	41	55	63	61	69	75	46	48	62	73	78
Handicrafts	2,924	2,738	3,072	3,996	4,500	6,129	5,665	6,282	6,972	8,670	8,492	8,230	10,216	11,495
Sports goods	48	32	35	45	66	74	78	81	73	67	65	69	73	93
Others	127	156	241	277	307	367	375	323	327	418	472	486	583	651

Source: Handbook of Statistics of Indian Economy

Table A20: China's Structure of Exports (Commodities Only)

Years: 2002, 2003

	Exports (%)	
	2002	**2003**
Agriculture, Forestry and Fishing	3.3	2.9
Oil and Gas Extraction + Fuel Refining	NA	NA
Other Mining	NA	NA
Gas, Electricity and Water	NA	NA
Chemicals	4.5	4.2
Minerals	4.7	4.5
Metals	6.7	6.5
Machinery and Equipment + Electrical and Optical Equipment	38.5	42.4
Transport Equipment	3.2	3.5
Food, Drink and Tobacco	2.1	1.8
Textile and Clothing	17.8	16.7
Wood and Wood Products	1.1	1.0
Paper, Printing and Publishing	0.7	0.7
Rubber and Plastics	3.1	2.9
Other Manufacturing NEC	14.3	12.9

Table A21: China's Structure of Imports (Commodities Only)

Years: 2002, 2003

	Imports (%)	
	2002	**2003**
Agriculture, Forestry and Fishing	2.3	2.5
Oil and Gas Extraction + Fuel Refining	NA	NA
Other Mining	NA	NA
Gas, Electricity and Water	NA	NA
Chemicals	8.2	7.7
Minerals	9.0	9.8
Metals	9.3	10.0
Machinery and Equipment + Electrical and Optical Equipment	47.4	48.9
Transport Equipment	3.9	4.3
Food, Drink and Tobacco	1.2	1.2
Textile and Clothing	5.8	4.7
Wood and Wood Products	1.4	1.1
Paper, Printing and Publishing	2.5	2.1
Rubber and Plastics	6.7	6.0
Other Manufacturing NEC	2.2	1.8

Table A22: India's Structure of Exports (Commodities Only)

Years: 2002, 2003

	Exports (%)	
	2002	**2003**
Agriculture, Forestry and Fishing	8.0	6.4
Oil and Gas Extraction + Fuel Refining	4.9	5.5
Other Mining	NA	NA
Gas, Electricity and Water	NA	NA
Chemicals	9.6	9.5
Minerals	20.9	20.2
Metals	NA	NA
Machinery and Equipment + Electrical and Optical Equipment + Transport Equipment	17.1	19.2
Food, Drink and Tobacco	4.7	4.9
Textile and Clothing	21.2	19.1
Wood and Wood Products	NA	NA
Paper, Printing and Publishing	NA	NA
Rubber and Plastics	4.6	5.1
Other Manufacturing NEC	7.5	8.9

Table A23: India's Structure of Imports (Commodities Only)

Years: 2002, 2003

	Imports (%)	
	2002	**2003**
Agriculture, Forestry and Fishing	4.3	4.3
Oil and Gas Extraction + Fuel Refining	28.7	26.7
Other Mining	2.0	1.8
Gas, Electricity and Water	NA	NA
Chemicals	5.5	6.7
Minerals	11.9	11.3
Metals	4.2	5.0
Machinery and Equipment + Electrical and Optical Equipment	19.9	20.2
Transport Equipment	3.1	2.8
Food, Drink and Tobacco	0.0	0.0
Textile and Clothing	1.6	1.6
Wood and Wood Products	NA	NA
Paper, Printing and Publishing	1.3	1.4
Rubber and Plastics	1.6	1.8
Other Manufacturing NEC	15.8	16.5

Table A24: East Midlands' Industrial Structure (Construction and Service not Included)

Year: 2004

	Output (%)	
	East Midlands	**UK**
Agriculture, Forestry and Fishing	5.9	4.7
Oil and Gas Extraction + Fuel Refining	0.7	11.3
Other Mining	1.5	0.9
Gas, Electricity and Water	6.6	8.5
Chemicals	7.4	8.9
Minerals	5.1	2.8
Metals	9.9	7.5
Machinery and Equipment + Electrical and Optical Equipment	11.8	14.1
Transport Equipment	12.9	8.9
Food, Drink and Tobacco	17.6	11.3
Textile and Clothing	4.0	2.3
Wood and Wood Products	1.5	1.4
Paper, Printing and Publishing	7.0	10.3
Rubber and Plastics	4.4	3.8
Other Manufacturing NEC	3.7	3.3

Notes on TableA20 – A24

(1) The years for China's and India's structure of exports and imports are different from East Midlands' industry.

- China and India; 2002 and 2003
- East Midlands; 2004

(2) In table A24, Industrial Structure is slightly different from Chart 10.

- Construction and service are excluded.
- Oil & gas extraction is combined with fuel refining.
- Machinery & equipment is combined with electrical & optical equipment.

(3) Following (2), the reason for doing this is so that a mapping between East Midlands' industrial structure and structure of China's and India's trade can be made.

(4) The systems for India's exports and imports are different.

(5) In table A22, transport equipment is combined with machinery, electrical and optical equipment.

(6) In table A23, the numbers for food, drink and tobacco is curious. This may be because the India's system includes this into other categories (e.g. agriculture or other products).

Table A25: FDI inflows(value)

Unit: US dollar at current prices(millions)

Reporter	World	China	India
1992-1997(annual average)	310,879	32,799	1,676
1998	690,905	45,463	2,633
1999	1,086,750	40,319	2,618
2000	1,387,953	40,715	2,319
2001	817,574	46,878	3,403
2002	678,751	52,743	3,449
2003	559,576	53,505	4,269

Source: UNCTAD

Table A26: Share of FDI inflows(%)

Reporter	World	China	India
1992-1997(annual average)	100	10.6	0.5
1998	100	6.6	0.4
1999	100	3.7	0.2
2000	100	2.9	0.2
2001	100	6.9	0.4
2002	100	7.8	0.5
2003	100	9.6	0.8

Source: UNCTAD; own calculation

Table A27: Annual percentage change of FDI inflows

Reporter	World	China	India
1992-1997(annual average)			
1998			
1999	57.3	-11.3	-17.7
2000	27.7	1.1	7.0
2001	-41.1	15.1	46.7
2002	-17.0	12.5	1.4
2003	-17.6	1.4	23.8

Source: UNCTAD; own calculation

Table A28: FDI outflows(value)

Unit: US dollar at current prices(millions)

Reporter	World	China	India
1992-1997(annual average)	328,248	2,846	96
1998	687,240	2,634	47
1999	1,092,838	1,775	80
2000	1,186,838	916	509
2001	721,501	6,884	1,397
2002	596,487	2,518	1,107
2003	612,201	1,800	913

Source: UNCTAD

TableA29: Share of FDI outflows(%)

Reporter	World	China	India
1992-1997(annual average)	100	0.9	0.0
1998	100	0.4	0.0
1999	100	0.2	0.0
2000	100	0.1	0.0
2001	100	1.0	0.2
2002	100	0.4	0.2
2003	100	0.3	0.1

Source: UNCTAD; own calculation

Table A30: Annual percentage change of FDI outflows

Reporter	World	China	India
1992-1997(annual average)			
1998			
1999	59.0	-32.6	70.2
2000	8.7	-48.4	536.3
2001	-39.2	651.5	174.5
2002	-17.3	-63.4	-20.8
2003	2.7	-28.5	-17.5

Source: UNCTAD; own calculation

Table A31: FDI inward stock(value)
Unit: US dollar at current prices(millions)

Reporter	World	China	India
1980	692,714	1,077	452
1985	972,205	6,063	747
1990	1,950,303	20,694	1,657
1995	2,992,068	134,869	5,641
2000	6,089,884	348,346	17,517
2002	7,371,554	447,966	25,408
2003	8,245,074	501,471	30,827

Source: UNCTAD

Table A32: Share of FDI inward stock(%)

Reporter	World	China	India
1980	100	0.2	0.1
1985	100	0.6	0.1
1990	100	1.1	0.1
1995	100	4.5	0.2
2000	100	5.7	0.3
2002	100	6.1	0.3
2003	100	6.1	0.4

Source: UNCTAD; own calculation

Table A33: FDI outward Stock(value)
Unit: US dollar at current prices(millions)

Reporter	World	China	India
1980	559,629		4
1985	738,809	131	19
1990	1,758,216	2,489	50
1995	2,897,574	15,802	264
2000	5,983,342	25,804	1,859
2002	7,209,582	35,206	4,006
2003	8,196,863	37,006	5,054

Source: UNCTAD

Table A34: Share of FDI outward stock(%)

Reporter	World	China	India
1980	100		0.0
1985	100	0.0	0.0
1990	100	0.1	0.0
1995	100	0.5	0.0
2000	100	0.4	0.0
2002	100	0.5	0.1
2003	100	0.5	0.1

Source: UNCTAD; own calculation

Table A35: Inward FDI stock(% of GDP)

Reporter	World	China	India
1980	6.6	0.5	0.2
1985	8.3	2.0	0.3
1990	9.3	5.8	0.5
1995	10.2	19.3	1.6
2000	19.3	32.2	3.8
2002	23.0	35.4	5.2
2003	22.9	35.6	5.4

Source: UNCTAD

Table A36: Outward FDI Stock (% of GDP)

Reporter	World	China	India
1980	5.8		0.0
1985	6.6	0.0	0.0
1990	8.6	0.7	0.0
1995	10.0	2.3	0.1
2000	19.1	2.4	0.4
2002	22.6	2.8	0.8
2003	23.0	2.6	0.9

Source: UNCTAD