ECONSTOR
*Make Your Publications Visible.*

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Oschinski, Matthias

**Working Paper**

# A tale of two trade regimes: India's development experience

TIGER Working Paper Series, No. 74

**Provided in Cooperation with:**
TIGER - Transformation, Integration and Globalization Economic Research, Warsaw

*Suggested Citation:* Oschinski, Matthias (2005) : A tale of two trade regimes: India's development experience, TIGER Working Paper Series, No. 74, Transformation, Integration and Globalization Economic Research (TIGER), Warsaw

This Version is available at:
https://hdl.handle.net/10419/140726

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

TRANSFORMATION, INTEGRATION and GLOBALIZATION ECONOMIC RESEARCH
CENTRUM BADAWCZE TRANSFORMACJI, INTEGRACJI I GLOBALIZACJI

TIGER Working Paper Series

No. 74

# A Tale of Two Trade Regimes: India's Development Experience

**Matthias Oschinski**

Warsaw, March 2005

**Matthias Oschinski**: Research and Teaching Assistant at the Chair for International Macroeconomics, University of Mainz, Germany. Website: http://www.macro.vwl.uni-mainz.de/ls/ger/welcome.htm E-mail: matthias.oschinski@uni-mainz.de

**Matthias Oschinski**

## A Tale of Two Trade Regimes: India's Development Experience

### Summary

When India initiated economic reforms in July 1991 to deal with the consequences of the balance of payments crisis the country also started to open its economy to international trade – if only gradually. Over the years, this policy has been criticized by NGOs as harming the poor through increased competition by multinational companies and through declining prices of agricultural products.

Consequently, this paper analyses India's performance with regard to its two different trade regimes over the past four decades and assesses their respective impacts on poverty alleviation.

## 1. Introduction

When India initiated economic reforms in July 1991 to deal with the consequences of the balance of payments crisis the country also started to open its economy to international trade – if only gradually. Over the years, the measures of trade liberalization have been criticized by NGOs as harming the poor through increased competition by multinational companies and through declining prices of agricultural products. The campaigners against globalization expressed their concern that while big monopolies and foreign capitalists will benefit from overall liberalization, small farmers, beneficiaries of the Public Distribution System and agricultural labourers would lose out (Agrawal 2001). The consequence would be an increase in poverty and inequality.

The address to the nation of India's then President Shri K. R. Narayan in 2000 reflects the view of many sceptics of reforms. With regard to liberalization and poverty the President stated: 'The benefits of our economic growth are yet to reach them [the poor]. We have one of the world's largest reservoirs of technical personnel, but also the world's largest number of people below the poverty line, and the largest number of children suffering from malnutrition. Our giant factories rise from out of squalor; our satellites shoot up from the midst of the hovels of the poor…Tragically, the growth in our economy has not been uniform. It has been accompanied by great regional and social inequalities…The unabashed, vulgar indulgence in conspicuous consumption by the noveau-riche has left the underclass seething in frustration. One half of our society guzzles aerated beverages while the other has to make do with palmfuls of muddied water. Our three-way fast-lane of liberalization, privatisation and globalisation must provide safe pedestrian crossings for the unempowered India also so that it too can move towards "Equality of Status and Opportunity"' (Narayan, K. R. 2000 cited in Dutta 2002).

A good decade after reforms have been initiated it is worth, then, to explore the relationship between openness and poverty in India to determine whether the critics have it right, i.e. whether there is indeed a negative relationship between openness and poverty. To this end, India's experience with regard to openness and poverty is examined for a period of four decades – from 1960 to 2000. Taking a longer time period into consideration has several advantages. First, it helps to understand the country's performance concerning the alleviation of poverty under different political and trade regimes. Second, it fosters the comprehension of the economic policy measures taken before 1991 and explains how they could finally result in a crisis. Third, it allows a comparison of the success (or failure) of the different approaches taken to reduce poverty. In India today a good 300 million people live below the poverty line, with a great majority residing in the rural areas of the country. While overall poverty data seems to have improved since economic reforms had been introduced, not all have benefited (Agrawal and Srinivasan 2000; Bhalla 2001). Thus, a more detailed study may help to understand what works for poverty reduction and why. Finally, and equally important, a longer time period permits the application of a times series analyses which contributes to a better understanding of the empirical relationship between openness and poverty.

Consequently, the paper is structured as follows. The first part analyses India's performance with regard to poverty alleviation under the prevalent trade regime from the 1960s to the balance of payments crisis in 1991. The main reason for beginning the analysis in 1960 is that up to the late 1950s India could not put in place a real political strategy aiming at the reduction of poverty and the economic development of the country. Rather, in the early years after independence it had to deal with the consequences of the Second World War and the partition which followed independence. Thus, the years up to the late 1950s were spent in re-establishing law and order, consolidating political power and rehabilitating the economy (Nayar 2001).

The second part analyses the country's experience after the initiation of reforms following the crisis in 1991. The development experience during the post-reform period can be divided into two different parts (Dutta 2002). First, the immediate measures taken aimed at the stabilization of the economy and the reduction of macroeconomic imbalances. In a second step, the Indian government undertook structural adjustment measures and initiated reform programs in order to boost economic growth. As we shall see, economic reforms indeed led to higher growth rates although the country liberalized very carefully and might have reaped more benefits by choosing a bolder approach.

In the third part of the paper the possible influence of openness on poverty is examined by applying a time series analysis. The main results indicate that there is no direct impact of openness on poverty – neither positive nor negative. Rather, it seems that other factors such as female literacy, development expenditure, population growth and the manufacturing share of GDP play a more important role. Further, a Chow test reveals no indication for a structural break following the crisis in 1991. This is in line with the perception that reforms were carried out very carefully and gradually.

## 2. The First Development Experience: 1960 to 1991

### *2.1 Plans and Good Intentions*

When the government of India published its Second Five Year Plan in 1956 it illustrated the development approach the country should take for years to come. From the very beginning the goal was to combine strong economic growth with equitable income distribution and national self-reliance in a democratic framework. In order to achieve these aims it was seen as necessary to follow a strategy in which the state had a strong status. It was believed that central planning would best serve the objective of creating strong economic growth in order to alleviate mass poverty (Tendulkar 2000). The basic idea behind a centrally planned economy was that it would help create stability by removing uncertainty for private actors, thus, stimulating private investment which would otherwise not happen in an underdeveloped economy. To this end, the state was to take over investment in essential infrastructure, i.e. roads, railways, and irrigation as well as the production of steel, coal, power and heavy electrical machinery. The intention was a kick start for the economy and incentives for private investment whereby the state would influence both the pace as well as the composition of economic activity as the latter should serve human development. In the eyes of the government, the best political structure to combine strong economic growth with an equitable distribution of income was a socialistic pattern of society. In this respect the state had to deter the development of capitalistic monopolies and instead foster small-scale industry. Consequently, where large industrial companies were seen as necessary in the process of industrialization and economic advancement they were owned by the state. As India's constitution states social, economic and political justice and the minimization of inequality in income, status, facilities and opportunities amongst individuals and groups as the guiding principles of politics, the state perceived it as its task to ensure that material resources were distributed in a way as to best serve the common good. Hence, the concentration of wealth and means of production needed to be avoided (Basu 1983). This was best to be achieved through a strong public sector as stated in the 2nd Five Year Plan: 'The basic criterion for determining the lines of advance must not be private profit but social gain…The public sector has to expand rapidly…it has to play the dominant role…the public sector must grow not only absolutely but also relatively to the private sector' (GOI 1956 in: Nayar 2001).

While socialism and central planning constituted the first two pillars of India's development strategy the third was economic self-reliance which was associated with a policy of import substitution (Dahiya and Khera 2000). This strategy shall be described next.

*2.2 Self-Reliance*

India's strategy of self-reliance was an essential part of the Mahalanobis model – named after its initiator, the economic planner P. C. Mahalanobis. In its original version from the early 1950s the Mahalanobis model was based on the Harrod-Domar model focusing on the accumulation of capital to spur economic growth. The former scheme went further, however, by specifying the sectors in which investment had to take place in order to develop from an agrarian society to an industrial one. In this, Mahalanobis' concept bore similarities to the Feldman model developed in the Soviet Union in 1928 which gives high preference to the investment goods industries sector (Nayar 2001).

The Indian approach shared the export pessimism of that time. It resulted from the believe that trade with primary goods would not help to obtain the capital goods needed for the development of the economy as terms-of-trade would turn against those countries exporting primary commodities; a thought explicitly developed in the Prebisch-Singer thesis. As a consequence, Indian planners saw the country's need to develop its own investment goods industry in order to become competitive towards the already industrialized economies.

Yet, the notion of self-reliance, justified by the prevalent development theories of the time, has been developed long before the Prebisch-Singer thesis exerted its influence on policy makers in post-colonial societies. As Nayar (2001) and Srinivasan (2000) show, this concept has originally been developed in the early 1900s by the Indian National Congress – commonly referred to as the Congress Party. Following a liberal phase of the movement, during which its members endorsed large-scale industrialization, by the early 1920s many started to maintain a position favouring state intervention and self-sustainability. To a large extend this reflected anger and disappointment with British rule as the colonial authorities had shown no effort to develop the country economically. Consequently, Mahatma Gandhi could catalyze the frustration into a mass movement comprising the new middle class and the rich and middle peasantry and transformed the Congress Party into a mass organization. Although Gandhi himself rejected large-scale industrialization and a strong state, many of his substitutes advocated exactly that. One of them was Jawaharlal Nehru – later to become India's first Prime Minister. In speeches he gave in the 1930s he repeatedly endorsed ideas of socialism and self-reliance and began to develop an economic strategy for an independent India. Summing up his thoughts in 1946 he noted: 'In the context of the modern world, no country can be politically and economically independent, even within the framework of international interdependence, unless it is highly industrialized and has developed its power resources to the utmost. Nor can it achieve or maintain high standards of living and liquidate poverty without the aid of modern technology in almost every sphere of life. An industrially backward country will continually upset the world equilibrium and encourage the aggressive tendencies of more developed countries. Even if it retains its political independence, this will be nominal only and economic control will tend to pass to others' (Nehru 1946 quoted in Srinivasan 2000: 667).

It follows, then, that economic self-reliance was seen by India's founding fathers as a necessity in order to retain political independence. While rapid industrialization and central planning were pursued as essential strategies to move the nation out of mass poverty, the notion of self-reliance is mainly a result of the country's independence struggle against British colonial rule. Not to be economically self-reliant would mean "*to be subservient to the economy of foreign countries. It means economic bondage and probably also political subjection*" (Nehru 1943 quoted in Narya 2001: 69). Thus, India's concept of self-reliance was not based on dependency theories which were common at the time the country specified its development strategy. Rather, it was a result of India's struggle for independence and the Congress Party's disappointment and frustration with the exploitative British rule. As Roy

(2002) points out, the leaders of the Congress Party blamed British *laisser-faire* and the country's openness to foreign goods and capital for the development of mass poverty. This, however, disregarded the fact that during 60 out of the 90 years of British rule India's economy actually showed positive growth and profited from an inclusion into the world economy. It was only with the beginning of the First World War and the subsequent collapse of the world economy that growth and poverty figures worsened. Blaming all of the country's social and economic problems on an exploitative colonial rule, though, presented a perfect alibi to implement a policy of self-reliance. A strong role for the state combined with economic independence from the outside world, then, are ultimate statements of the sovereignty which India's resistance movement has fought for so long. This fact leads Narya to state that the country's economic strategy was not the result of '*a power of economic theory*' but rather one of '*a theory of power*' (2001: 71).

*2.3 The Trade Regime*

Indian planners termed the country's economic policy framework a 'mixed economy'. By this they meant a blend of central planning and public control over important areas of industrial development combined with some space for private enterprises. India's trade regime was thereby characterized by a system of import substitution.

One characteristic of this strategy was a complex system of quantitative restrictions on imports where licences had to be obtained to import capital and intermediate goods. The import of consumer goods was generally prohibited. Capital goods were divided into two categories, termed 'restricted' and 'open general licensing' (OGL) respectively. Goods falling into the latter category could in general be acquired without a license. For the import of all others a licence had to be granted. Intermediate goods were categorized into four different groups, namely 'banned', 'restricted', 'limited permissible' and 'OGL'. To make matters worse, goods from the 'OGL' category could not automatically be imported. In principal, the importer needed to prove that he was an 'actual user', implying that he was not allowed to sell the imported goods in the domestic market for a period of 5 years. The domestic trade with imports was subject to public 'canalizing agencies'. Another non-tariff barrier existed in the 'Phased Manufacturing Programme' with which domestic producers had to commit themselves to gradually substitute imported machinery by domestically produced capital goods (Aksoy 1992).

The Indian tariff regime supported the system of protectionism. At first glance, it seemed very simple and transparent but due to various exemptions it too became very complex. Average tariffs were generally higher than those in other developing countries (see Table 1) and constituted an important part of government revenues. By the late 1980s, the share of tariffs in government revenues amounted to 34.8 percent. The country's tariff and non-tariff system transformed it into the world's most autarkic non communist country (Joshi and Little, 1996).

Table 1: Tariff rates for industrial goods (unweighted)

| Country | Intermediate products | | Capital goods | | Consumer goods | | Manufacturing | | Import tariff rate |
|---|---|---|---|---|---|---|---|---|---|
| | Average | σ | Average | σ | Average | σ | Average | σ | |
| Argentina | 21.2 | 15.3 | 25 | 12.6 | 21.9 | 8 | 22.9 | 14.3 | 13.8 |
| Bangladesh | 97.9 | 60 | 80.5 | 18.1 | 116.1 | 82 | 100.8 | 67.3 | 15 |
| China | 78.9 | 55.7 | 62.5 | 47.8 | 130.7 | 66.9 | 91.2 | 63.4 | n.a. |
| **India** | **123** | **46.8** | **114.5** | **54.8** | **128.5** | **32.6** | **121.7** | **46.6** | **41.3** |
| Morocco | 21.6 | 16.9 | 18.1 | 12 | 43 | 20.5 | 27.8 | 20.4 | 16.6 |
| Mexico | 23.5 | 16.3 | 23.5 | 17.3 | 32.2 | 26.4 | 24.7 | 19 | 6.8 |
| Thailand | 27.8 | 20.4 | 24.8 | 16.2 | 48.5 | 38.7 | 33.5 | 28.6 | 12.5 |

*σ = standard deviation. (Source: World Bank, 1989: 137).*

India's aim with regard to its export policy was both to ensure an adequate supply for the domestic market and to promote the export of sophisticated commodities. Consequently, the policy consisted in a mix of controls and subsidies. Restrictions to exports were carried out under a licensing regime which mostly aimed at primary and intermediary goods necessary to produce sophisticated commodities. Although India had a comparative advantage with regard to agriculture the bulk of products restricted from exports were agricultural commodities (Panagariya, 1994). The idea behind this strategy was to ensure a sufficient supply of food in the country. To set incentives for the export of manufactures the government undertook measures to promote exports under various schemes and also set up export processing zones (EPZ) and export oriented units (EOU). Overall, however, India's export performance during this time was quite modest. On the left hand side in Graph 1 below, India's share in world exports is depicted. It shows a steady decline from 1.2 percent in 1960 to a mere 0.4 percent in 1986. The right axis portrays the country's export ratio (exports/GNI). There is a slight improvement here in the mid-1970s when EPZs and EOUs were introduced but this trend did not continue. Rather, the ratio started to decline again soon afterwards. All in all, the figures underline an ideology that views exports more or less as a 'necessary evil' in order to be able to pay for the imports needed to establish a large-scale industrial sector.

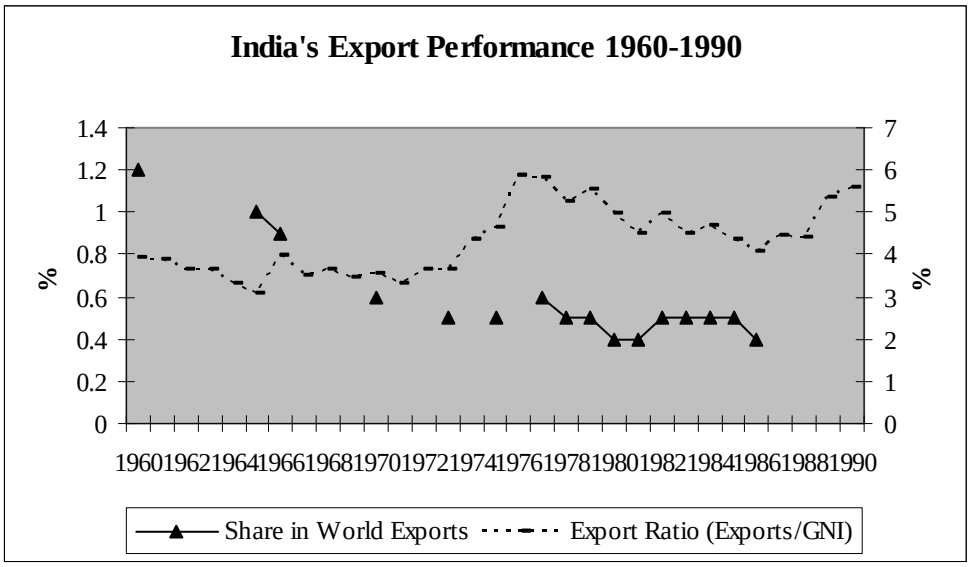


***Figure 1: India's Export Performance*** *(Source: IFS, 2004; Srinivasan 2000)*

*2.4 The Performance*

If one were to sum up India's development strategy of self-reliance combined with a socialistic pattern of economic policy in merely one word it would have to be – *failure*. This section shall provide a justification for this judgement.

By following its development strategy the country's aim was to generate economic growth, to establish social justice and to alleviate poverty. Accordingly, I will assess the performance with respect to these criteria. Taking up the issue of growth first, delivers a rather bleak picture. As Graph 2 shows, average growth rates for in the first two decades were rather low. The decline from the 1960s to the 1970s is in part a result of several shocks to the Indian economy (Srinivasan 2000). First, the war in Bangladesh created a huge influx of refugees which the country had to assist and to absorb. Second, the collapse of the Bretton-Woods system had adverse effects on the economic situation. Third, India suffered unfavourable weather conditions between 1972 and 1975 leading to an overall small agricultural output. Finally, the first oil crisis in 1973 increased prices for imports with negative repercussions for growth. Despite these crises, however, even the average "initial" growth rate in the 1960s of about 1.7 percent is far from impressive and one can argue that had the country set the economy on a higher growth path to begin with, the slump might not have been so strong in the following decade. The picture seems to look a bit brighter when concentrating on the 1980s. Here the average growth rate was around 3.6 percent. The reason for this higher growth, though, was not a result of structural changes with regard to more liberalization. Although India announced a more liberalized trade regime by the mid-1980s it mainly changed quantitative restrictions into high tariffs so that there was no real change in the level of protectionism. Domestic liberalization measures did not occur either – rather, the Indian government increased public spending in the form of subsidies and development expenditure.

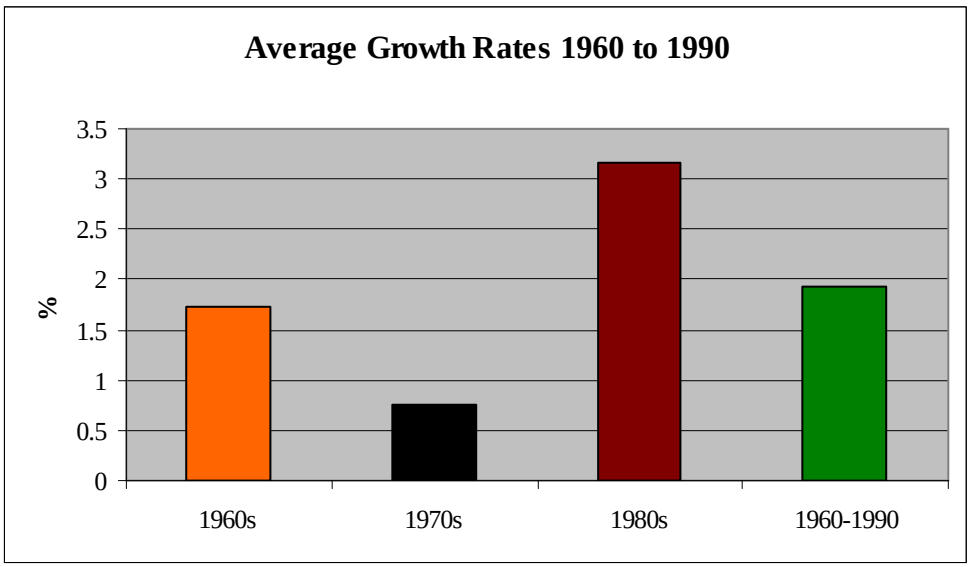


***Figure 2: Average Growth Rates prior to reforms*** *(Source: World Development Indicators 2002)*

When Indira Gandhi returned to power in 1980 the 6th Five Year Plan – entitled 'New Industrial Growth with Direct Measures for Poverty Eradication' – was initiated. The government saw the need for a higher public assistance to the poor and consequently increased development spending and overall subsidies to big and small farmers. This is illustrated in Graph 3 which depicts agricultural subsidies in percent of GDP and, as a contrast, the financial support to export promotion from the late 1960s to the late 1980s. Whereas public assistance for export promotion drastically declined by the mid-1970s, and

stayed low until the late 1980s, agricultural provisions increased considerably in the early 1980s under Indira Gandhi's regime and stayed at this level through Rajiv Gandhi's reign.

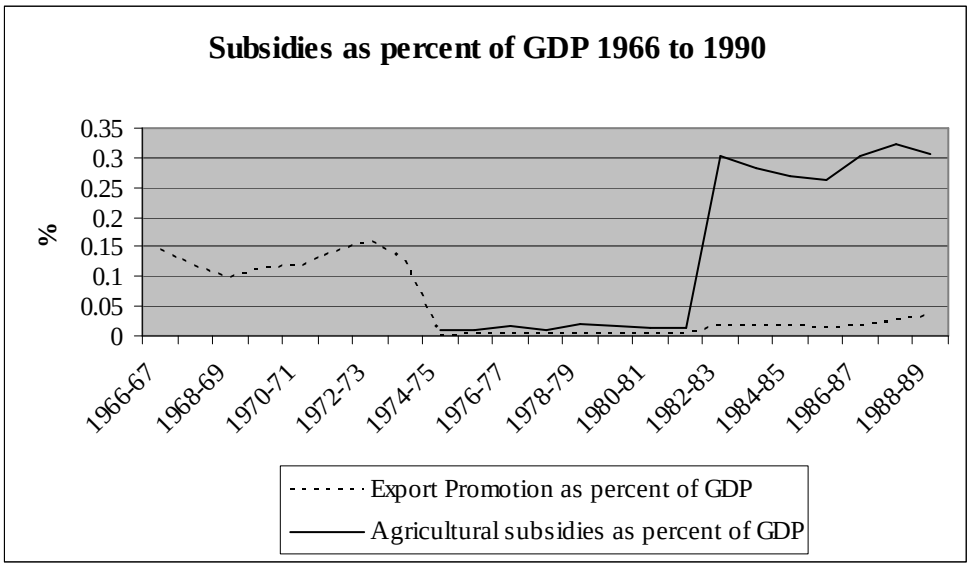


***Figure 3: Subsidies 1966 to 1990*** *(Source: Indiastat.com, 2004).*

A main cause for the increase in subsidies was to be found in Indian politics and society. In the late 1970s the Congress Party had suffered its first defeat at the central level since independence. And although it regained power in 1980, the general politics developed a shorter time horizon as the Party became aware of the fact that in order to win elections in the future it had to win over powerful interest groups – among them rich and middle peasantry. Thus, the government increased subsidies and other public spending targeted at those groups (Nayar 2002). After Indira Gandhi was assassinated, her son Rajiv followed her in power. His government started out with a massive majority in parliament as the Congress Party had won 415 out of 545 seats. Rajiv Gandhi saw the need for a liberalization of the economy in order to spur growth and to alleviate poverty. To this end, he chose his associates from the business community and with the 7th Five Year Plan ('Industrial Growth and Liberalization') his government started to delicence a number of industries, reduced public spending and taxes and eliminated some government controls on imports. While intellectuals and English language newspapers endorsed the beginning of reforms – the Wall Street Journal even dubbed the new Prime Minister "Rajiv Reagan" – the overall public and the opposition in parliament denounced them as anti-poor and as the selling out of India's sovereignty to big corporations (Varshney 1999). Hence, in the face of massive protests, and despite their enormous parliamentary majority, the government started to retreat from reforms, increased subsidies and raised tariff levels. In this context Bardhan (1984) has argued that in essence there are three proprietary classes in India, namely industrial capitalists, rich farmers, and public sector professionals. Neither of them would have profited from reforms and thus their resistance was immense. In addition, especially with regard to farmers the Congress Party had a soft spot as the rich and middle peasantry had been involved with the Congress movement since colonial times. This factor also prevented necessary changes and reforms in the agricultural sector.

Not surprisingly, then, India's performance with regard to poverty reduction during 1960 to 1990 was rather disappointing. Graph 4 depicts average rural and urban headcount ratios for the three decades prior to reforms. As can be seen, there was practically no change in the 1960s and 1970s both with respect to rural and urban poverty. The picture improves somewhat during the 1980s with rural poverty falling by about 14 percentage points and

urban poverty decreasing by about 10 percentage points. While this looks quite impressive at first glance, this success was in large part due to a sharp increase in public spending. This approach, however, was not sustainable over a longer period of time and augmented India's fiscal problems which were later to result in a balance of payments crisis.

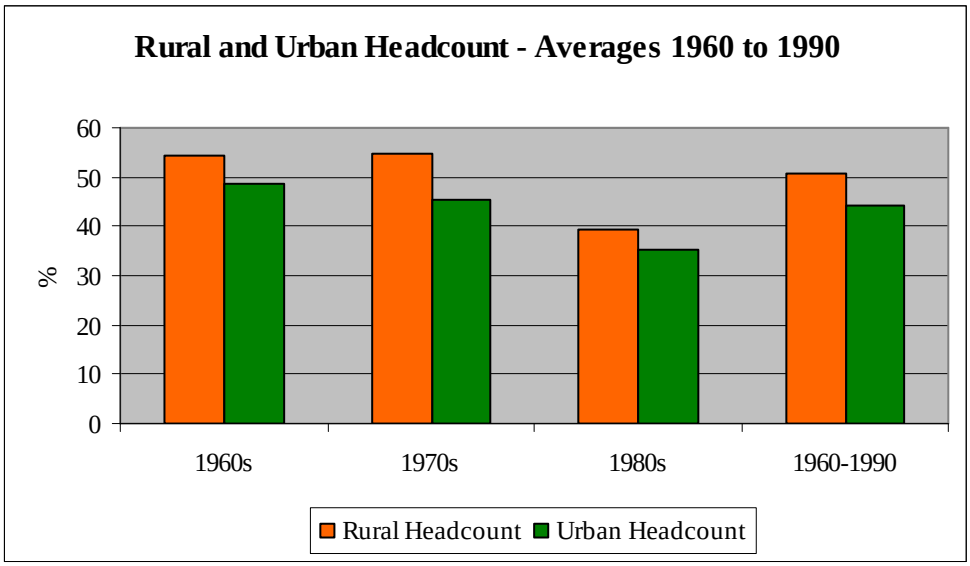


***Figure 4: Rural and Urban Poverty*** *(Source: IndiaStat.com, 2004)*

Regarding social justice one can examine India's pre-reform experience by using a variety of different indicators some of which are depicted in Table 2 for those years for which data was available. As one of the goals was to achieve a more egalitarian distribution of income I will turn to the Gini coefficient first. Column 2 in Table 2 displays the change of the Gini coefficient between 1960 and 1990. As the figures show, there has not been much change in social justice as far as income distribution is concerned since the index dropped only slightly from its initial level of 32.59 percent to 30.46 percent.

Another way of perceiving social justice is by considering the chances various segments of society have with regard to participate in the economic process. A number of authors took up this issue by exploring how India's caste system hampers social mobility and, in turn, reinforces poverty patterns (Desphande et al. 2004; Thorat and Desphande 1999; Gang et al. 2002; Sundaram and Tendulkar 2003). This issue mainly affects members of Scheduled Castes (SC) and Scheduled Tribes (ST) who over centuries have remained at the lowest ranks of the economic hierarchy where, not surprisingly, the incidence of poverty is the highest. Since members of SC by birth have only been allowed to take up low-paying positions characterized by little productivity could not aspire for occupations higher up in the social hierarchy social mobility was inexistent. With respect to ST, their social and economic disadvantages originate from geographical issues. Living on arid land in the more isolated parts of the country, they mainly have to make due with the scanty fruits of their cultivating efforts. Lacking proper access to education and health care they have largely been marginalized by society. At times, they have been uprooted from their traditional environment as dams or other public infrastructure was built, without receiving proper remuneration.

In columns three and four in Table 2 the percentage of members of SC below the poverty line are compared with the respective section of society not belonging to this group. Whereas the incidence of poverty decreased for the latter group both in rural and urban areas, rural poverty for members of SC declined only slightly and even increased in urban areas. An explanation for the latter phenomenon might be found in rural-urban migration, although exact numbers are hard to come by.

A third criterion with respect to social justice can be seen in the incidence of corruption within a society. Hence, numbers for India from the International Country Risk database are included in column five of Table 2. The PRS Group which publishes the International Country Risk Data allots specific numbers to each risk category whereby the higher the number, the lower the risk. The highest number to achieve in the category 'corruption' is six. Thus, according to this measurement, India's level of corruption in the time prior to reforms could be described as 'medium risk'. As can be seen in Table 2, India's level of corruption, and hence this risk assessment, did not change since data acquisition has commenced. With regard to social justice corruption can be seen as problematic as it can prevent the participation of segments of society in the economic process. Especially small entrepreneurs, unable to pay the going rate to a government official, might lose out on access to projects or imports. The cause for the incidence of corruption in India can directly be derived from the chosen development path. As Varshney (1999) reports, to acquire an investment license could require up to 80 permissions. In addition, the trade system with complex regulations towards quantitative restrictions, licensing and the tariff system with its various exemptions created an environment which downright invited the offer of bribes by competing parties. Thus, a strategy intended to create more social justice directly contributed to greater injustice.

Table 2: Selected Indicators on Social Justice

| Year | Gini | Percentage of SC below poverty line | | Percentage of Non-SC below poverty line | | Incidence of Corruption |
|---|---|---|---|---|---|---|
| 1960 | 32.59 | Rural | Urban | Rural | Urban | |
| 1961 | 33.08 | | | | | |
| 1962 | 32.6 | | | | | |
| 1963 | 30.73 | | | | | |
| 1965 | 31.05 | | | | | |
| 1966 | 31.14 | | | | | |
| 1967 | 31.06 | | | | | |
| 1968 | 30.55 | | | | | |
| 1969 | 31.86 | | | | | |
| 1970 | 31.47 | | | | | |
| 1971 | 30.38 | | | | | |
| 1973 | 31.85 | | | | | |
| 1974 | 29.17 | | | | | |
| 1978 | 32.14 | | | | | |
| 1983 | 31.49 | 57.77 | 36.48 | 45.61 | 40.12 | 3 |
| 1987 | 32.22 | 56.41 | 48.11 | 42.15 | 37.27 | 3 |
| 1988 | 31.82 | | | | | 3 |
| 1989 | 31.15 | | | | | 3 |
| 1990 | 30.46 | | | | | 3 |

*(Source: World Development Indicators, 2004; Thorat and Deshpande, 1999; ICRG, 2004).*

A final aspect of social justice concerns India's dualistic labour market. In creating a dominant public sector with rather rigid labour laws the majority of the country's employees are still employed in the informal sector of the economy which is characterized by a low capital-labour ratio, practically no job security, poor working conditions and low-paying jobs. Whereas employees in public enterprises enjoyed high levels of job security more than 90 percent of the workforce was excluded from employment the formal sector - and until today the informal sector occupies around 93 percent of the entire workforce (GOI 2004).

Overall, then, India's development strategy failed on all accounts – it did not manage to generate enough economic growth to alleviate mass poverty and instead of improving it, it

contributed to social injustice. Looking at the statistics, though, one could argue that one aim, the industrialization of the country, has been reached as the share of agriculture in GDP declined from 44 percent in 1960 to 29 percent in 1990. However, the majority of the workforce, about 66 percent remained in agricultural occupations (Rothemund 1995). Thus, the strategy of large-scale industrialization with the hoped-for poverty reducing effect was also unsuccessful.

While growth rates gained some momentum in the 1980s and overall poverty decreased, this was in great part due to high levels of public spending which finally resulted in a balance-of-payments crisis in July 1991 (Oschinski 2003). In the course of the 1980s the country's fiscal deficit increased from 6 percent of GNP to 8.4 percent of GNP. The growing deficit was largely financed through India's central bank resulting in an expansion of the monetary base and higher inflation rates. To hold the inflation rate down, the government started to reduce public investment but already the current account had been worsened while foreign debts grew. A great deal of the debts consisted in short-term capital flows coming from Non-Resident Indian (NRI) deposits and commercial banks at high interest rates. By 1990-91 India's debt burden had risen to 22 percent of current account receipts and 30 percent of exports earnings compared to 10 percent and 15 percent in 1980, respectively (Sachs et al. 1999). With the beginning of the first Gulf war remittances from NRI's working in the region drastically declined. This and a subsequent hike in oil prices led to a fall in the central bank's reserves from 3.11 million US$ in August 1991 to 896 million US$ in January 1991. The pressure on the Indian Rupee additionally reduced reserves as the central bank tried to stabilize the exchange rate. By June 1991, the country's reserves had dwindled to a value equal to a two-week's import volume. In this situation the government decided to not only put in place a short-term stabilization program but also to introduce fundamental structural reforms. In the wake of the reforms, the country gradually opened its economy to the world market. The record of this strategy with regard to poverty alleviation shall be explored next.

## 3. The Post-Reform Development Experience 1991-2000

In 1991 a minority government under Prime Minister Narasimha Rao put in place a new economic policy – which in part had been prescribed by IMF and World Bank which supported the country financially during the crisis. The reform period can thereby be distinguished into a stabilization period and a period of structural adjustment and reforms (Dutta 2002). In the first period, which lasted about two years, the main concern was to reduce fiscal and current account deficits. The second period aimed at placing the country at a higher growth path. To this end, the then finance minister Manmohan Singh, introduced a number of reforms previously unseen in India's recent past. After two successive devaluations of the Indian rupee in August 1991 he went about to gradually introduce changes in economic policy. Domestically, the country abolished the licensing system for all industries but six – the exemptions comprising of industries concerned with atomic energy, atomic minerals, mineral oils, arms and ammunition, and railway transportation. All other areas previously reserved for the public sector were opened up to private investors. In addition, the financial sector was reorganized and the entry of new private banks became easier. In other parts, though, the government did not find a majority for domestic reforms. Resistance was especially high with respect to the privatization of public enterprises, a change in labour laws and a lowering of agricultural subsidies. Reforms on the first two points were rejected as many politicians expressed their concerns about a subsequent sharp increase in unemployment. On the second point it was argued that Indian farmers could not be exposed to the world market without public assistance as foreign competition would be too powerful (Varshney 1999). Up to now, there have not been major changes on these issues since the initiation of reforms.

While Singh managed to reach quick consensus on some domestic reforms, his planned liberalization of the external sector met more resistance with opposition parties (Ahluwalia, 1999). Many were concerned that opening up the economy to the world market would especially harm the poor and that before the country was to open up there needed to be a levelled playing field towards industrialized countries. Others argued that with increased openness the country would concede its sovereignty to multinational corporations that way degenerating into a playground of foreign powers. How deep concerns about increased openness were is illustrated in a speech Manmohan Singh delivered to convince members of parliament of the advantages of a more open economy: '[It] is sometimes expressed that the policy of welcoming foreign investment…may jeopardise our sovereignty. These fears are misplaced. We must not remain permanent captives of a fear of the East India Company, as if nothing has changed in the past 300 years' (Singh 1992 quoted in Varshney 1999: 232).

This, again, demonstrates how profoundly the country's policy decisions with regard to openness had been influenced by colonial experience.

In the end, regarding external liberalization a compromise was reached and the parliament decided on a gradual approach towards openness. This approach consisted in the substitution of quantitative restrictions into tariffs, a careful lowering of overall tariffs, and an increase in foreign direct investment. With regard to the first issue the country, once it had joined the WTO in 1995, agreed to phase out quantitative restrictions completely within a span of six years.

Since there were widespread concerns about the reform's potential negative impact on the poor, the government agreed to increase its efforts with respect to support of the poor and the implementation of anti-poverty programmes. This posed a problem to fiscal policy, though, since one of the goals was to drastically reduce the fiscal deficit. As Table 3 illustrates this aim was only partly met. While the fiscal deficit as a percentage of GDP declined from 8.3 percent to 5.9 percent between 1990-91 and 1991-92 it basically stagnated at this level throughout the 1990s. In some other aspects, the performance was more successful. The country's reserves recovered very quickly and the rate of inflation, which had rarely exceeded 10 percent in the past, declined even further to around 4.8 percent by the end of the 1990s.

Table 3: Fiscal Deficit in the 1990s

| Year | 1990-1 | 1991-2 | 1992-3 | 1993-4 | 1994-5 | 1995-6 | 1996-7 | 1997-8 |
|---|---|---|---|---|---|---|---|---|
| Fiscal Deficit (% of GDP) | 8.3 | 5.9 | 5.7 | 7.4 | 6.1 | 5.4 | 5.2 | 6.1 |
| Reserves* | 2.5 | 5.3 | 4.9 | 8.6 | 8.4 | 6.0 | 6.6 | 7.0 |
| Inflation | 10.3 | 13.7 | 10.1 | 8.4 | 10.9 | 7.7 | 6.4 | 4.8 |

**As number of months of imports of the respective year. (Source: Ahluwalia, 1999).*

### 3.1 *Implications for Openness and Trade*

The picture is equally mixed with respect to openness and trade. Taking foreign direct investment (FDI) as a measure of openness, one observes a substantial increase in FDI flows in the course of the 1990s. As is illustrated in Graph 5, FDI was practically non-existent before reforms were initiated when average inflows of FDI never exceeded 0.04 percent of GDP. In the post-reform period, however, average FDI amounted to about 0.39 percent of GDP.

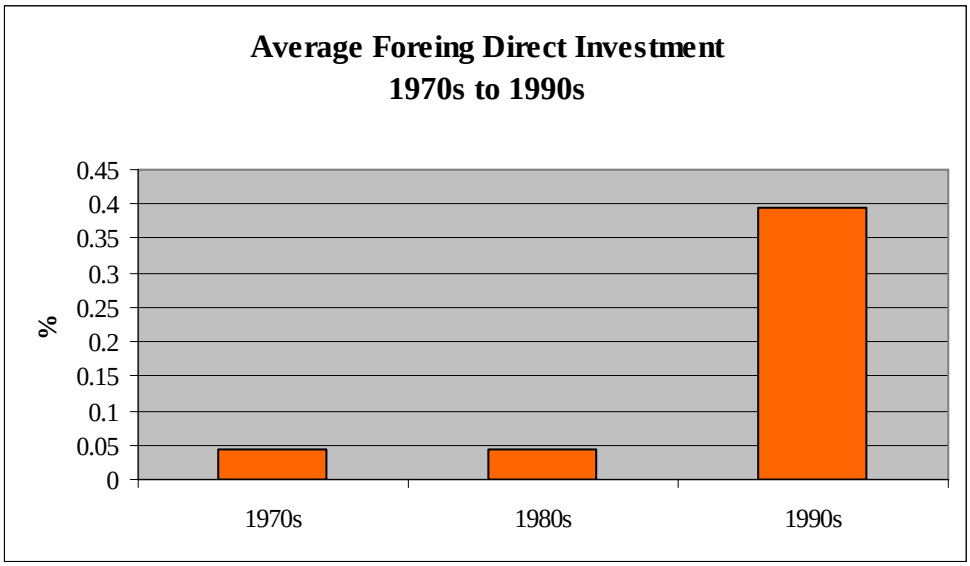


***Figure 5: Average Foreign Direct Investment*** *Source (WDI, 2002)*

Regarding the development of tariff rates a substantial decline can be witnessed as Table 4 reveals. While the peak tariff rate was over 200 percent before the reform period this came down to 45 percent by the end of the 1990s. There is, however, still a remarkable gap compared to other developing countries where peak tariff rates are, on average, between 5 and 15 percent (Ahluwalia 1999).

Table 4: Peak Tariff Rates in the 1990s

| Year | 1990-1 | 1992-93 | 1993-94 | 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 |
|---|---|---|---|---|---|---|---|---|
| Peak Tariff Rate | > 200 | 110 | 85 | 65 | 50 | 52 | 45 | 45 |

*(Source: Ahluwalia, 1999).*

In addition to these measures, the government actively promoted the creation of export oriented units (EOU) and within a span of a decade over 3600 EOUs had been set up (GOI, 2004).

Taking a look at the reform packages which passed the parliament in the early 1990s the question remains why the government decided to tackle some areas and did not touch others. Some critics have argued that the main reason is to be found in a lack of a proper strategy towards reforms (Narya 2002). A more careful analyses, however, reveals the underlying factors. These shall be considered next.

### *3.2 The Political Economy of Reforms*

In the context of India's reforms, it is interesting to explore, why a minority government in 1991 was able to propose and put through far-reaching reforms where Rajiv Gandhi's government in the mid-1980s, having won a substantial majority in parliament, met harsh resistance while trying to implement merely a fraction of those reforms. The answer to this question is of some relevance as it helps to understand the direction and the pace of reforms. According to Varshney (1999), India's minority government in the early 1990s was able to push for structural reforms as by that time India's politics had lost its bipolarity. Throughout former decades political battles had largely been fought between the Congress Party and the opposition. By the end of the 1980s, however, the opposition had split up into a left-wing

group consisting of the Communist Party and the lower caste Janata Dal, and a Hindu nationalistic front. At the time the economic crisis hit India, the two groups were sharply divided over issues of national identity. The Hindu nationalists were seeking to build a united Hindu community against the Muslim minority whereas the left-wing opposition parties challenged the existence of the caste system. A number of riots occurred when the political battle was taken to the streets. In this environment, then, both opposition factions were only marginally interested in the reform debates. The real issues at the time both in the parliamentary discussions and on the streets were about national identity. Thus, although the Communist Party and the lower caste Janata Dal emphasized their belief that the proposed reforms would harm the poor and would worsen economic conditions, they did approve of it as they sought to win the Congress Party as an ally in the fight against Hindu nationalism.

In contrast to the situation in the early 1990s, Rajiv Gandhi's government in the mid-1980s faced strong resistance to the proposed reforms as there were no overriding issues dividing opposition both in parliament and on the streets. In such a situation, then, groups who saw their vested interests at stake formed a powerful resistance party against change. In the face of mass demonstrations, strikes and riots, the government, despite having had a vast majority in parliament, finally gave in and refrained from their plans. But although the situation was more favourable for the minority government five years later, it too could not realize the intended policy package fully (Naryan, 2002). In cases where powerful groupings were to be hurt, the opposition parties intervened. Thus, the decisive factor behind the pace of reforms as well as the areas in which these were carried out is to be found in the political and cultural environment of that time. As a consequence, the government could only put into place a fraction of the intended policy changes. Whether and how these had a influence on growth, poverty and social justice shall be explored next.

### *3.3 More Growth, Less Poverty, Increased Inequality*

Overall, the gradual approach towards reforms had a positive impact on both economic growth and poverty alleviation. While GDP growth plummeted from 5.4 percent to 0.8 percent between 1990 and 1991, it recovered very quickly and again exceeded 5 percent in the following year. For a number of years, growth rates even surpassed 7 percent. As far as poverty is concerned, the country witnessed an increase in the headcount ratio in the time immediately following the crisis and a sharp decline from the mid-1990s onwards. Decomposing the poverty figures into rural and urban headcount ratios reveals that the increase in poverty was mainly due to an increase in rural poverty ratios, suggesting that the rural population bore most of the brunt of the crisis. While urban headcount ratios remained fairly stable in the early 1990s, rural poverty increased from around 34 percent in 1990 to over 43 percent in 1993.

With regard to income inequality, the country experienced somewhat of a new trend. While the gini coefficient had been fairly stable in the decades prior to reforms, when it fluctuated between 30 and 32 percent, it increased considerably during the 1990s and by 1997 exceeded 37 percent. In other words, if the gini coefficient is used to proxy social justice regressed in the course of the 1990s. The numbers for these indicators are summarized in Table 5.

Table 5: Growth, Poverty and Income Inequality in the 1990s

| Year | Growth | Headcount | Headcount Rural | Headcount Urban | Gini Coefficient |
|---|---|---|---|---|---|
| 1990 | 5.4 | 34.07 | 34.3 | 33.4 | 30.46 |
| 1991 | 0.8 | 35.49 | 36.43 | 32.76 | 29.69 |
| 1992 | 5.3 | 36.34 | 37.42 | 33.23 | 32.53 |
| 1993 | 6.2 | 40.93 | 43.47 | 33.73 | 32.02 |
| 1994 | 7.8 | 35.04 | 37.3 | 32.4 | 29.7 |
| 1995 | 7.2 | 38.4 | 39.75 | 33.5 | n.a. |
| 1996 | 7.5 | 35 | 37.46 | 28.04 | n.a. |
| 1997 | 5.1 | 34.4 | 35.69 | 29.99 | 37.8 |
| 1998 | 5.3 | n.a. | n.a. | n.a. | n.a. |
| 1999 | n.a. | 26.1 | 27.1 | 23.6 | n.a. |

*(Source: Indiastat.com, 2004; WDI, 2002).*

With regard to poverty ratios, both Sundaram and Tendulkar (2003) as well as Deaton and Dreze (2002) object that the figures obtained in 1999 cannot be compared to those of former years as they are based on a different methodology. While the 50$^{th}$ Round of the National Sample Survey (NSS), conducted in 1993-94, used both 30-day and a 365-day reporting periods, for the 55$^{th}$ NSS at the end of the 1990s only a 7-day and 30-day reporting period was applied. This, however, contorts the resulting consumption distribution and can understate the headcount ratio when compared to earlier periods (Deaton and Dreze 2002). Taking this into account, the authors re-calculated rural and urban headcount ratios on a basis more comparable to earlier NSS rounds. All in all, their results to not differ greatly from the figures depicted in Table 5. While Deaton and Dreze (2002) obtain ratios of 30 percent for rural poverty and 24.7 percent for urban poverty, Sundaram and Tendulkar's (2003) calculations show 28.93 percent in rural poverty and 23.09 percent in urban poverty – with the latter being even lower than the official number. Reviewing the evidence for the 1990s and applying alternative estimates Bhalla (2000) finds that NSS data grossly overstate poverty levels and claims that the overall headcount ratio was below 20 percent in 1998. Datt and Ravallion (2002) point out that when using NSS data, the final results with regard to poverty alleviation heavily depend on the choice of the recall period. Using a 30-day recall period for food expenditures does indeed lead to a drop in overall poverty by 10 percentage points between 1993-94 and 1999-2000. Applying the 7-day recall period indicates a rise in rural poverty by 2 percentage points and in urban poverty by 5 percentage points during that period. After reviewing various surveys dealing with this matter and assessing the issue themselves, the authors conclude that the evidence suggests that poverty in the 1990s fell by a little less than one percentage point per annum. They do not find support for an increase in poverty. In sum, whilst there is some debate on methodological issues, the common fact that poverty has been reduced during the 1990s is not disputed by the majority of the authors.

Decomposing the general figures for members of SC and ST does not change this conclusion very much. As Table 6 shows, poverty has been considerably higher in those groups compared to the rest of the population. The incidence of overall poverty also increased between 1987-88 and 1993-94 indicating a harmful effect of the crisis on this section of the population. In contrast to the general poverty figures, urban poverty among SC and ST also increased and considerably more than rural poverty. By the end of the 1990s, however, the trend had been reversed. Both, rural and urban poverty declined by more than 15 percentage points between 1993-94 and 1999-00 to a substantially lower level than that before the reforms. Based on these figures, then, it can be assumed that the reform process did not pass by the members of the weaker sections of society although the incidence of poverty stays at a

considerably higher level for this segment emphasizing their general societal disadvantage (Gang et al. 2002).

Table 6: Incidence of Poverty Among SC and ST

| Year | Poverty | | | percent of: | |
|---|---|---|---|---|---|
| | Rural | Urban | Overall | Population | Poor |
| 1987-88 | 56.2 | 48.3 | 55.3 | 24 | 32 |
| 1993-94 | 58.6 | 57.5 | 58.4 | 23 | 33 |
| 1999-00 | 43 | 42.5 | 42.9 | 24 | 33 |

*(Source: Indiastat, 2004).*

Curiously, though, in 2000 the Times of India declared that reforms were doing badly on the poverty front and noted that *"the latest numbers on poverty in India appear to be a vote for Indira Gandhi and a vote against Manmohan Singh: National Sample Survey (NSS) statistics show that the `socialistic' policies of an inward-looking, controlled economy did more to reduce poverty than the economic reforms pursued since 1991"* (Dash, 2000). The author goes on to explain that, in percentage terms, overall poverty decreased faster during the time of import substitution than during the 1990s under an open economy approach. One reason for this rather pessimistic view on the impact of reforms on poverty may lie in the fact that the author's statements refer to the poverty levels up to 1997. Another reason might be an overall scepticism that the new policy would result in a better developmental performance. Including the latest poverty figures for 1999-00 it is indeed true that, taken together, in the three decades prior to reform poverty, on average, declined faster than in the post reform era, with a decrease of around -33 percent between 1960 and 1990 and a reduction of roughly 26.5 percent between 1991 and 1999. This consideration, however, leads to the wrong conclusion. A better way of approaching the issue is by looking at the respective decades separately as politics differed to some extent in the 1960s/70s and the 1980s as has been described above. Thus, Graph 6 shows the decadal percentage change in headcount poverty from 1960 to 1999. What becomes clear is that the performance with regard to poverty reduction was best in the 1980s and 1990s when poverty declined by about 21 percent and by over 26 percent respectively. Regarding the period of 1960 to 1980, however, delivers a very bleak picture. While poverty actually increased by nearly 13 percent in the 1960s, it fell by roughly that amount during the 1970s. This means that during the time the country was most closed off from the world market (as there were some slight changes towards openness from the mid-1980s onwards) it also had the worst performance in reducing poverty. This, then, directly contradicts the view that poverty reduction actually stagnated during the reform period. On the contrary, percentage-wise the decline in poverty was highest between 1991 and 1999.

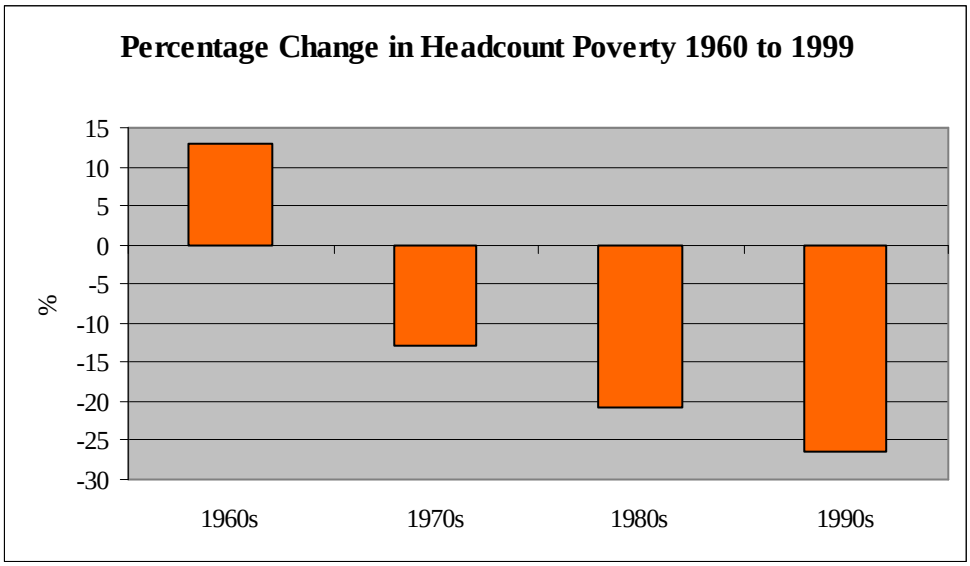


***Figure 6: Percentage Change in Headcount Poverty by decade***

This is in line with the fact that growth in the post reform era exceeded that in the previous decades. Whereas average growth rates during the three decades prior to reforms amounted to around 1.93 percent, the average growth rate in the post-reform era up to 1998 totalled around 5.6 percent. This, in turn, suggests that higher growth may have contributed to poverty alleviation.

Taking a look at the performance in the realm of human development indicates that the reform process did not have adverse effects. First, I focus on progress in overall literacy rates and on female literacy rates. As Table 7 illustrates, both overall literacy and female literacy have continuously increased sine 1961. To check whether human development may have stagnated in the post-reform period, I calculate percentage changes in literacy rates, presented in columns five and six of Table 7. According to these figures, changes in overall literacy have been highest in the decade from 1971-1981 while changes in female literacy have been highest in the first decade from 1961-71. It also becomes clear, however, that the second best performance with regard to both overall literacy and female literacy occurred in the decade after reforms had been initiated, i.e. between 1991 and 2001. During that time, overall literacy increased by 25.25 percent while female literacy increased by 37.85 percent.

Table 7: Literacy Rates 1960-2001

| Year | Literacy | Female Literacy | Decade | %-change in Literacy | %-change in Female Literacy |
|---|---|---|---|---|---|
| 1961 | 28.3 | 15.35 | | | |
| 1971 | 34.45 | 21.97 | 1961-71 | 21.73 | 43.13 |
| 1981 | 43.57 | 29.76 | 1971-81 | 26.47 | 35.46 |
| 1991 | 52.2 | 39.29 | 1981-91 | 19.81 | 32.02 |
| 1997 | 62 | 50 | 1991-97 | 18.77 | 27.26 |
| 2001 | 65.38 | 54.16 | 1991-01 | 25.25 | 37.85 |

*(Source: GOI, 2004).*

Turning to a second aspect of human development, life expectancy does also not reveal any sign of stagnation during the post-reform period. Rather, both male and female life expectancy steadily increased from a 43.5 years and 45.12 years in 1960 to 63.44 years and 62.2 years, respectively, in 2000 – as is shown in Graph 7 below. While percentage-wise the increase in life-expectancy, both for females and males, was highest during 1960 to 1980 with

a slight slowdown in the following two decades, the country did not experience a deterioration in the 1990s – unlike some other countries such as Thailand where life expectancy actually fell by more than 1 percent during the 1990s, or many Sub-Saharan African states. Instead, in post-reform India female life expectancy increased by around 7 percent while male life expectancy increased by around 5 percent.

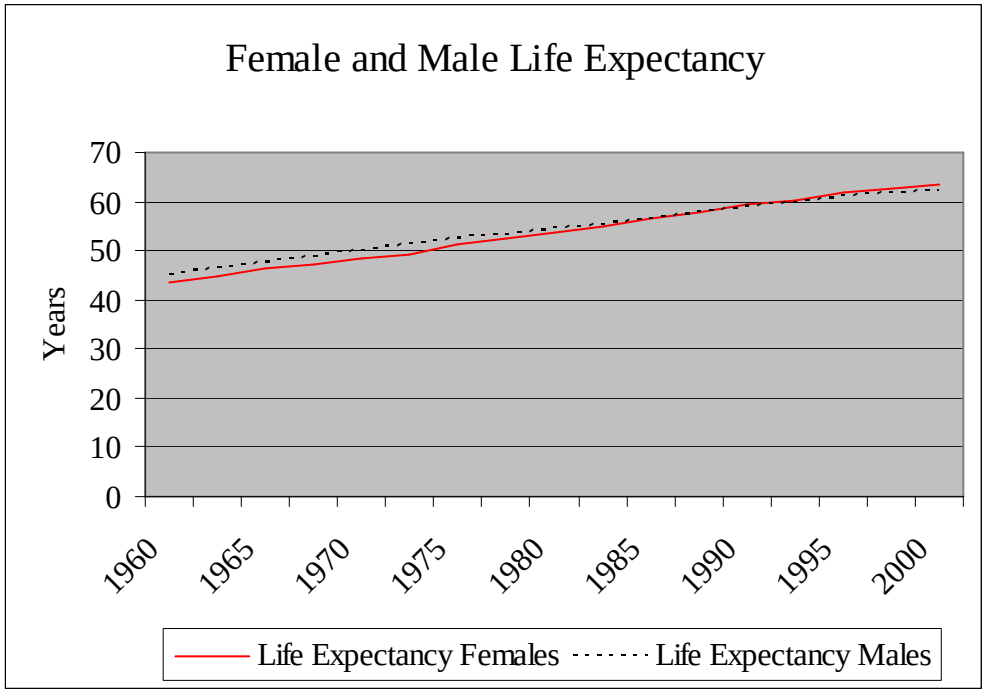


***Figure 7: Female and Male Life Expectancy 1960-2000*** *Source (WDI, 2002)*

As has been shown in Table 5 above, there is indication that the fruits of growth generated by reforms have not been spread evenly. The rise in the Gini coefficient could originate from the fact that some sections of society gained more than others. One reason might be found in the rise of the IT industry. As D'Costa (2002) has shown, the annual growth of exports of software grew by around 50 percent per year during the 1990s and the share of the IT industry to GDP increased from $1.73 billion to an estimated $13.5 billion between 1994 and 2001 which equals a change in the share of 0.59 percent to 2.87 percent. While Indian states with a relatively rich endowment with technically skilled labour could reap the profits from this development others were not able to. This line of argument, then, aims at initial conditions, placing some segments or areas of the country at a better position at the time of reforms.

Another possibility for an increase in inequality might actually be found in a lack of reforms. As I have argued above, to some extend the country did reform but refrained from carrying out policy changes where powerful interest groups could be hurt. Thus, to a large extend, the labour market was left untouched and no serious attempt made to make labour laws more flexible. The result of this neglect is reflected in the share of unorganised labour of the total workforce. While the share of the unorganised sector in the net domestic product (NDP) declined from around 70 percent to around 61 percent between 1980 and 1999, the share of employment in the unorganised sector actually increased from around 92.51 percent in 1981 to around 93.62 percent in 1999 (see Table 8). This can be ascribed to India's rigid labour laws protecting those in the formal sector but at the same time harming the majority of the country's labour force (Sachs, 1999). If the rise in income inequality is, at least in part, due to a lack of reforms then the real problem is not income inequality; rather, it is one of social exclusion. Social justice, then, should concentrate on establishing an inclusive economic environment where the currently neglected segments of society, among them

members of SC and ST, have equal access jobs, education, health care etc. This appears to be an aspect of the reforms that still needs to be tackled.

Table 8: Share of Organised and Unorganised Labour in Total Labour Force and NDP

| | Share in Labour Force | | Share in Net Domestic Product | |
|---|---|---|---|---|
| Year | Organised | Unorganised | Organised | Unorganised |
| 1981 | 7.49 | 92.51 | 30.00 | 70.00 |
| 1985 | 7.47 | 92.53 | 35.20 | 64.80 |
| 1990 | 7.30 | 92.70 | 36.30 | 63.70 |
| 1991 | 7.24 | 92.76 | 36.20 | 63.80 |
| 1992 | 7.17 | 92.83 | 36.70 | 63.30 |
| 1993 | 7.05 | 92.95 | 36.50 | 63.50 |
| 1994 | 6.95 | 93.05 | 36.90 | 63.10 |
| 1995 | 6.84 | 93.16 | 37.50 | 62.50 |
| 1996 | 6.79 | 93.21 | 39.60 | 60.40 |
| 1997 | 6.72 | 93.28 | 38.70 | 61.30 |
| 1998 | 6.55 | 93.45 | 39.40 | 60.60 |
| 1999 | 6.38 | 93.62 | 39.10 | 60.90 |

*(Source: GOI, 2004).*

The discussion above, then, allows the following conclusions. The country's initial development strategy, born out of its aim for sovereignty and directly related to its colonial experience, did not achieve its goals. Economic growth did not get anyway near a level to significantly reduce overall poverty – especially during the more inward-oriented decades until the early 1980s. Social justice, too, failed to materialize. Instead, the socialistic license system fostered the emergence of corruption and formal and informal institutions favoured certain interest groups at the expense of the poor masses which largely kept being excluded from economic gains. In the decade after reforms India's economy showed signs of improvement. Growth rates were significantly higher than during the previous decades. Poverty increased in the initial stabilization period but had substantially decreased by the end of the 1990s. Decomposing poverty figures suggests that the gains of reforms did not pass by the disadvantaged groups comprising of Scheduled Castes and Tribes. Income inequality, however, increased indicating a situation of uneven development with some sectors, especially the IT sector, profiting considerably more than others. A second aspects, though, portends to a probable lack of reforms in the labour market. The figures for the organised and unorganised sectors of the labour market indicate a continuous exclusion of the latter group from the benefits of regular employment especially with regard to working conditions, minimum wages etc. Whether and how openness has affected poverty shall be explored next.

## 4. Empirical Analysis

### *4.1 Overview*

Openness can have an impact on poverty in a variety of ways. For one, openness can increase export opportunities and thus raise incomes and/or employment in the sector(s) affected. A second possibility is that cheaper imports may enable the poorer sections of society to afford more goods. Also, the easier diffusion of technology can spur progress and enhance productivity in the country opening itself to the world market. On a negative note, increased openness might lead to higher competition of domestic companies with foreign

companies. With domestic firms often ill-equipped to compete due to lower productivity, higher unemployment can be a likely result. Finally, in cases where the opening country has a comparative advantage in the production of primary goods, openness could lead to a poverty trap if terms-of-trade turn against it. The last two examples are concerns frequently expressed by those sceptical of the process of globalization as they fear that the poor might be left behind, or worse, suffer even more.

With regard to India, a number of studies tried to assess the development impact of the reforms. Very rarely, however, do they distinguish between domestic and trade liberalization.

Sinha and Sinha (1996) analyse the impact of openness on economic growth in India and try to assess whether there is a long run relationship between openness and GDP. To this end, they conduct a time series analysis exploring whether the growth in openness leads to higher or lower growth rates in GDP using data from 1950 to 1990. They find that in the long run, openness has a positive impact on economic growth but also determine a two-way causality.

Rosenzweig (2003) examined the short and long run effects of openness on the poverty. To assess the short run effects he analyses changes in the wages of the rural poor. He distinguishes essentially two different phases of openness. The first one starting in the early 1970s with the Green Revolution when new seeds were allowed to enter the Indian market. The second phase of openness is constituted by the post-reform era. With respect to the first phase of openness, i.e. the Green Revolution, the author finds that improved seeds led to a considerable increase in yields for corn, rice, sorghum, and wheat and to an increase in rural wages. Between 1971 and 1982, real agricultural wages increased by 44% whereas between 1982 and 1999 they increased by 67%. In the latter period, however, there was also a rapid expansion in rural factory, i.e. non-farm, employment which, according to the author, had the more powerful effect on rural wage gains. The long-run effects of openness on poverty are measured in returns to schooling, i.e. skill investment. For the first group the author finds that agricultural productivity gains through the Green Revolution increased schooling for both children of land-owners and landless workers while factory expansion in the rural areas did not. Thus, factory expansion has a short-run effect on poverty alleviation whereas the Green Revolution had poverty alleviating effects both in the short and the long run.

In a similar paper Munshi and Rosenzweig (2003) analyse the impact of openness on urban poverty using survey data on some 7,900 households in the Bombay area covering the years 1982 to 2002. They assess the schooling choices made by members of higher and lower castes after reforms had been initiated by examining the returns to English language skills. The authors show that for given years of schooling in 1980 men who had attended an English-medium school earned 17% more than those who had visited a Marathi-medium school. In the post-reform era this gap rose to 22%. For women, the same figure rose from practically zero prior to reforms to 25% in the post-reform period. Thus, one reason for the rise in income inequality after reforms could lie in increasing returns to English language skills. The ratio of upper class male to lower class male having been trained in the English language was 8 to 1; for women this ratio was about 15 to 1. For the long run, the authors come to a more optimistic finding. They show that in the years after reforms lower caste girls changed to an English language education more readily than did upper caste girls – income constraints did not appear to have played a decisive role in this process. With regard to boys, however, there was no convergence. The explanation of the authors is that boys would easily find employment through the lower-caste networks in the informal sector. Here, English language skills have no pay-off.

One problem with the studies mentioned above is that it is hard to attribute all the poverty alleviating effects to openness. Since measures to open up the economy were accompanied by a bundle of other policy measures, such as domestic liberalization and pro-poor targeting, it is difficult to determine with their analysis which part of poverty reduction can be ascribed to openness. A second problem concerns the quantity of observations. Especially with regard to

the second study, which only uses data for the Bombay area, it is not sure whether the results are representative for the country as a whole.

Fox (2000) examines India's growth performance with regard to poverty reduction. While pointing out that the country's policies in the first decades after reform had been quite ineffective in reducing poverty he finds that the fall in headcount poverty from the 1980s onwards seems to be strongly correlated with higher growth rates. The result of a fall in overall poverty is supported by numbers of average daily caloric intake per person which seem to follow a similar pattern as poverty. Whereas it was declining in the 1960s to a level of about 2000 calories it improved slightly in the following decade and more extensively between 1980 and 1999 to a level of 2500 by the end of the period. While higher growth rates might be the driving force in poverty alleviation and higher caloric intake respectively, it is left open to what extend higher growth occurred through domestic liberalization or increased openness.

Jha (2000) examines changes in poverty and income inequality in the post-reform period. He points out that three factors caused inequality to increase after reforms had been initiated. First, as the services sector grew more rapidly than the agricultural and the manufacturing sector, wages for skilled labour increased more than did wages for unskilled labour. Second, despite higher growth rates in the 1990s the economy failed in absorbing enough labour. Finally, he finds that after reforms income shifted in favour of capital income increasing the gap between incomes of high and low skilled workers. With regard to poverty he states that reforms did not have much of an impact on poverty reduction as the pattern of growth was concentrated on the non-farm sector, thus, by-passing the majority of the poor. A second reason for sluggish performance in poverty reduction is, in his view, a lack of efficiency in the public anti-poverty programmes. In needs to be stated, however, that the author ignores the poverty figures for 1999 as he claims that they are not comparable to those in earlier years due to methodological changes. As has been shown above, however, independent estimates also demonstrate a considerable reduction in poverty in the 1990s.

DeLong (2001) traces India's positive growth performance back to Rajiv Gandhi's reform process and argues that the boom has really been initiated in the mid-1980s. To the 'conventional wisdom' that reforms were unsustainable because of the high borrowing he replies that India would not have been better off without it but concedes that India should have followed a different exchange rate policy to avoid the subsequent crisis. He does, however, not examine whether the cause of higher growth was due to increased openness or due to domestic policy changes.

Bhalla (2001) finds that higher growth rates are connected to poverty alleviation one to one. Using growth and poverty data for 15 Indian states he compares growth and poverty performance in the pre-reform era between 1977 and 1987 with that in the post-reform era from 1987 to 1999. According to his analysis, in 80 percent of all cases growth and poverty were directly (negatively) correlated, i.e. when growth went up, poverty went down and vice versa. In his view, then, this proves the success of the post-reform period with regard to poverty reduction. Again, though, he does not distinguish whether growth was driven more by domestic or trade liberalization.

Ahluwalia (2002) assesses whether India's critics of the reform process are right in claiming that the country's openness to trade is to blame for a slowdown in growth in the second half of the 1990s. He contrasts this view with opinions held by others who maintain that it is not the reforms that are to blame but too gradual a process of reforms. His analysis is in line with the argumentation made by Narya (2002) that reforms in India were not so much gradual as opportunistic. Thus, policy changes occurred in those areas where it was politically feasible. With regard to openness, the author welcomes the rapid decline in non-tariff barriers but at the same time criticises high tariffs which still keep the country well protected from the world economy. While his analysis shows that increased openness has helped the agricultural

sector by changing relative prices in favour of this sector and subsequently increased agricultural exports he points to a variety of policy failures in this area. First, public subsidies for water and fertilizer mainly benefit large-scale farmers while harming the environment and the incomes of small-scale and subsistence farmers. Second, there is a considerable lack of public investment in infrastructure hindering the rural population in reaping the benefits of domestic and trade liberalization. Finally, trade barriers for agricultural products within the country prevent the development of an integrated domestic market. Turning to a second aspect of openness, foreign direct investment (FDI), the author finds that FDI in India, unlike in Southeast Asia, was geared towards the domestic market rather than export penetration. He states, however, that faster industrial growth was not achieved mainly due to the country's rigid labour laws which hampered large-scale investment in the industrial sector. The conclusion of his survey, then, is that the country's lack of reforms led to slower growth by the end of the 1990s.

Reviewing India's post-reform progress, the World Bank (2000) stated its concern with slow growth in poor Indian states and the lack of progress with regard to poverty alleviation in the rural areas. According to their analysis, however, the reforms themselves are not the cause for a sluggish poverty reduction; rather, a lack of public investment in necessary infrastructure, inefficient poverty programmes and weak governance prevent the rural poor from reaping the gains of economic reforms.

The literature review above supports the preliminary findings that the post-reform period was in fact a success with regard to poverty alleviation. The common criticism does not focus on reforms but on a lack of reforms and on a lack of public support to infrastructure. The studies do not, however, discern the relationship between openness and poverty. Hence, the in the next section we will try to establish whether there is a link between the two.

### *4.2 Regression Analysis*

In a first step, I conduct a simple OLS regression for a period of four decades, i.e. 1960 to 1999, as I do not have more than 21 observations. A first look at the data indicates a negative relationship between openness to trade and poverty as Figure 8 shows. On the horizontal axis trade openness is measured as imports plus exports by GDP in logarithmic form, the vertical axis represents headcount poverty figures in logarithmic form.

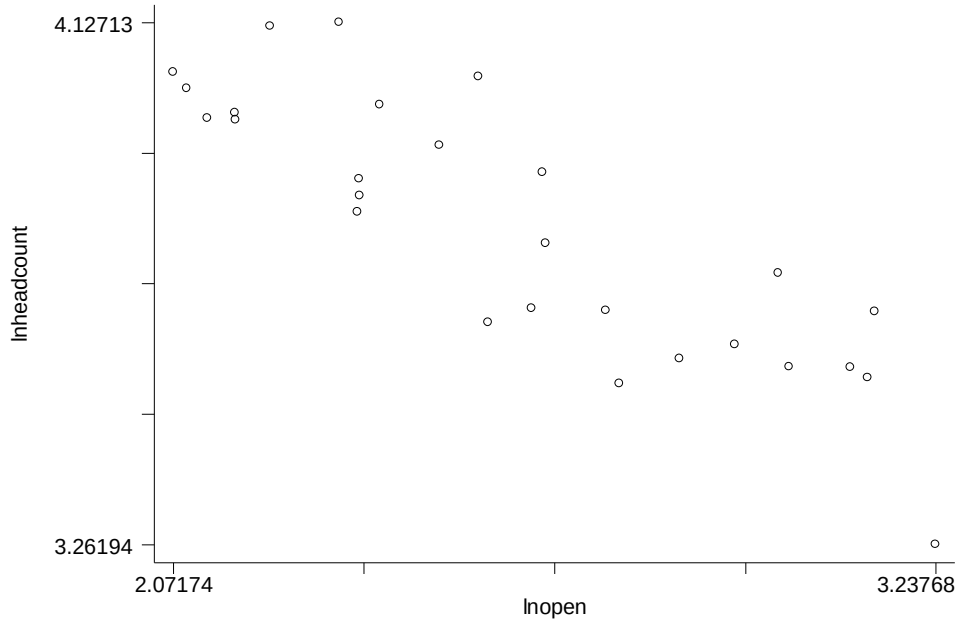


***Figure 8: Correlation between Openness and Poverty.***

Figure 9 shows the development of headcount poverty and trade openness over time. It again illustrates the points highlighted in the above discussion. While poverty declined quite steadily from the mid-1970s to the end of the 1990s, and rather quickly from the mid-1990s to the end of the decade, openness to trade was rather low until about the mid-1980s and then steadily increased, though not dramatically which reflects India's gradual approach to liberalization.

***Figure 9: Poverty and Trade Openness over time.***

Which additional factors might have an impact on poverty? For one, as Sen (1999) and Behrman et al. (1999) have shown, the education of women has a decisive effect on the health and the education of children. These multiplier effects, in turn, help to reduce poverty over time.

A second factor is population growth which, as Salvatore (1988) points out, has short and long run effects. In the short run, high population puts pressure on resources for education and health which might increase poverty. In the long run, the effect is less clear. In principle, the workforce is larger which could lead to a rise in GDP. If, however, improved technology is more capital intensive, the negative effects of rapid population growth on poverty might not be turned around. As the Hindu (2004) reports, the latter seems to be the case for India where researchers and government officials unanimously agreed that the country's high population growth hampered efforts to alleviate poverty through development programmes.

Another negative impact on poverty is to be expected from inflation. As Cardoso (1992) shows, inflation has a detrimental effect on poverty alleviation mainly via its negative impact on real wages. A similar finding is made by Dollar and Kraay (2001).

As has become clear in the above analysis, from the very beginning the Indian government was anxious to reduce poverty also with the help of public development expenditure. These, in part, entail spending on education and health care which have proven to work in favour of the poor. Thus, I expect development expenditure to be negatively correlated with poverty.

Finally, a country's industrial development is expected to work in favour of the poor. As Roy (2002) shows, an expanding industrial sector generates employment opportunities outside of the agricultural sector. This, in turn, decreases vulnerabilities both from possibly volatile terms of trade for agricultural products as well as from climatic conditions. In India, the need for agricultural labourers largely depends on the performance of the monsoon (Roy, 2002).

This dependency on the weather can be reduced for a number of the poor if they are able to find employment in the industrial sector. Hence, I expect a higher share of manufacturing in GDP to be negatively correlated with poverty.

The literature on poverty also suggests institutional factors to play a key role in the development process (Rodrik, 2001; Kaufmann et al., 2003; Gupta et al., 2002). Consequently, it would be of interest to include those in the analysis. As Table 9 shows, however, most data commonly used do not vary enough over time to be included in the time series analysis. This is the case for ICRG's bureaucratic quality and corruption indices given in columns 1 and 2 of Table 9. The index for bureaucratic quality remained completely unchanged since data collection commenced. The incidence of corruption slightly worsened in the immediate years after reforms as lower numbers indicate higher risks. In 1996 corruption returned to its pre-reform level until 2001. From 2001 onwards it, though, it appears as if the risk of corruption increased again. This corresponds with Transparency International's corruption index, listed in column 3. Here too, a lower number indicates a higher incidence in corruption. Thus, according to Transparency International, India's performance in this area improved somewhat between 1996 and 2000 but then deteriorated. Column 4 shows the index for the country's rule of law. Here, there is slightly more variation, at least between the pre- and post-reform period. According to this, India's rule of law improved in the post-reform period and then remained unchanged for a decade. An additional indicator is added as it is somewhat related to poverty. ICRG's socio-economic index assesses possible socio-economic pressures resulting from unemployment, consumer confidence and poverty which could constrain government action. Here, again, the lower the combined figure the higher the risk. As can be seen, the highest risk before 2000 was in 1991 – the year of the balance of payments crisis. While the picture greatly improved right afterwards there was a steady decline from the mid-1990s onwards which continued into the new millennium. In sum, data related with institutional quality does not deliver a consistent picture. While the rule of law clearly improved in the post-reform period the incidence of corruption increased as did the risk of socio-economic pressure. Bureaucratic quality remained unchanged over time. Due to a lack of observations, it is not possible, however, to compare the figures with earlier periods where the country's policy of import substitution was far more pronounced. Also, the limited number of observations does not allow the indices to be included in the regression analysis.

Table 9: Governance Indicators for India 1984-2003

| Year | Bureaucracy[a] | Corruption[b] | TI Index of Corruption | Rule of Law[b] | Socio-economic Index[c] |
|---|---|---|---|---|---|
| 1984 | 3 | 3 | n.a. | 2 | 8 |
| 1985 | 3 | 3 | n.a. | 2 | 7 |
| 1986 | 3 | 3 | n.a. | 2 | 7 |
| 1987 | 3 | 3 | n.a. | 2 | 6 |
| 1988 | 3 | 3 | n.a. | 2 | 6 |
| 1989 | 3 | 3 | n.a. | 2 | 5 |
| 1990 | 3 | 3 | n.a. | 1 | 5 |
| 1991 | 3 | 3 | n.a. | 3 | 4 |
| 1992 | 3 | 2 | n.a. | 3 | 6 |
| 1993 | 3 | 2 | n.a. | 4 | 6 |
| 1994 | 3 | 2 | n.a. | 4 | 7 |
| 1995 | 3 | 2 | 2.78 | 4 | 7 |
| 1996 | 3 | 3 | 2.63 | 4 | 5 |
| 1997 | 3 | 3 | n.a. | 4 | 5 |
| 1998 | 3 | 3 | 2.9 | 4 | 5 |
| 1999 | 3 | 3 | 2.9 | 4 | 5 |
| 2000 | 3 | 3 | 2.8 | 4 | 4 |
| 2001 | 3 | 1.5 | 2.7 | 4 | 3.5 |
| 2002 | 3 | 1.5 | 2.7 | 4 | 3.5 |
| 2003 | 3 | 1.5 | n.a. | 4 | 3.5 |

*(Source: ICRG, 2004; Transparency International (TI), 2004).*
*[a]On a ranking from 0 to 4 where 0 is the highest risk.*
*[b]On a ranking from 0 to 6 where 0 is the highest risk.*
*[c]On a ranking from 0 to 12 where 0 is the highest risk.*

According to the above argumentation, then, the resulting base line looks as follows:

$$\ln headcount_t = \beta_0 + \beta_1 \cdot \ln open_t + \beta_2 \cdot \ln avfemlit_t + \beta_3 \cdot \ln \inf lation_t + \beta_4 \cdot \ln devex_t + \beta_5 \cdot \ln popgrowth_t + \beta_6 \cdot \ln manushare_t + \varepsilon_t \quad (1)$$

In equation (1) poverty is measured as overall headcount poverty and the measure for openness, lnopen, is the share of imports plus exports by GDP. The control variables include the decadal averages of female literacy, the rate of inflation, the amount of development expenditure, the rate of population growth and the share of manufacturing in GDP, lnmanushare.

A look at the results in the first column of Table 1 in the appendix shows that with the exception of openness all variables have the expected signs. Four out of six RHS variables are statistically significant above the 5 percent level. According to the results, then, female literacy, public development expenditure and the share of manufacturing in GDP are negatively correlated with poverty. Although the findings do not allow a statement about causality, they are in line with the results in studies mentioned above and based on the arguments made there it can be assumed that these factors do have poverty alleviating effects even if reverse causality can not be ruled out. The results also show a significant positive relationship between population growth and poverty confirming the earlier supposition on its negative effects with regard to resources for health care and education. What I do not find, however, is a direct relationship between openness to trade and poverty – neither positive nor

negative. Although Figure 8 leads to a hypothesis of a negative relationship between the two this could, at best, be indirect for instance through an increased industrialization under a more open trade regime. As Roy (2002) argues, labour-intensive manufacturing did indeed increase in the post-reform period. A second possibility could be a rise in agricultural wages due to more trade which, in turn, would lead to a reduction in rural poverty.

Since India experienced a balance-of-payments crisis in 1991 there is the need to consider whether this event constituted a structural break. The Chow-Test applied to the baseline indicates that this was not the case. This result confirms the literature on India's reform process. As mentioned above, the country reformed very slowly and gradually so that a 'big bang' at a specific point in time, i.e. a structural break, could not be expected.

In a second step of our analysis, I add two control variables – growth and income inequality. GDP growth can influence poverty by enhancing a government's ability to provide more basic health care and education. In addition, if the nature of growth is such that it increases the incomes of the poor directly it has a direct poverty alleviating effect. Similarly, a change in income inequality might have an impact on poverty. As was shown above, income inequality in India sharply increased in the 1990s. This could harm the poor as a higher share of the country's income is going to the better off. To see whether growth and income inequality have a direct effect on poverty and whether it changes the overall findings the following analysis will be performed.

$$\ln headcount_t = \beta_0 + \beta_1 \cdot \ln open_t + \beta_2 \cdot \ln avfemlit_t + \beta_3 \cdot \ln \inf lation_t + \beta_4 \cdot \ln devex_t + \beta_5 \cdot \ln popgrowth_t + \beta_6 \cdot \ln manushare_t + \beta_7 \cdot \ln growth_t + \beta_8 \cdot \ln gini_t + \varepsilon_t \quad (2)$$

The results, given in the second column of Table 1 in the appendix, show no changes when compared to the base line analysis. Both growth and income inequality, represented by the Gini coefficient, are not significantly correlated with poverty. Female literacy, public development expenditure and the share of manufacturing in GDP are significantly negative related with the headcount whereas population growth is significantly positive correlated with poverty. Again, I do not find any statistically significant direct relationship between openness and poverty.

As the above literature review has shown, Rosenzweig (2003) finds a statistically significant impact of the Green Revolution on poverty alleviation. Accordingly, I run the regression adding a variable for agricultural productivity to our baseline. Agricultural productivity is hereby calculated as follows. First I calculate the agricultural yield for 1960 to 1999 by dividing the respective figures for the agricultural GDP by the respective net sown area. Next, the annual change in yield in percentage terms is computed. This will be defined here as agricultural productivity. Agricultural productivity could have an impact on poverty in various ways. If productivity is enhanced by labour-saving technologies it could, in the end, result in higher rural unemployment leading to a rise in rural poverty. Rising agricultural yields, however, would work in favour of poverty alleviation as they would translate into cheaper products. The final effect on overall poverty in this case is rather unclear. If agricultural productivity is enhanced by labour-neutral or even labour-intensive technologies we would expect an overall positive effect on poverty alleviation. Equation (3) illustrates the analysis.

$$\ln headcount_t = \beta_0 + \beta_1 \cdot \ln open_t + \beta_2 \cdot \ln avfemlit_t + \beta_3 \cdot \ln \inf lation_t + \beta_4 \cdot \ln devex_t + \beta_5 \cdot \ln popgrowth_t + \beta_6 \cdot \ln manushare_t + \beta_7 \cdot \ln agriprod_t + \varepsilon_t \quad (3)$$

As shown in the last column of Table 2 in the appendix, the regression results using the calculated measure for agricultural productivity indicate no significant influence. While,

again, female literacy, development expenditure and the share of manufacturing in GDP are negatively correlated with poverty, population growth and now also the rate of inflation show a significant positive correlation. Thus, while adding agricultural productivity yields a higher $R^2$ it does not change our main findings – especially with respect to openness.

Next I ask whether results would differ when distinguishing between rural and urban poverty. As the above discussion has shown, urban poverty might have been affected by openness through a rise in industrial employment whereas rural poverty might have been affected by a change in agricultural wages due to higher exports of primary commodities.

A look at the data reveals that, although, rural poverty was always higher than overall poverty; both figures moved very closely together over time (see Figure 10).

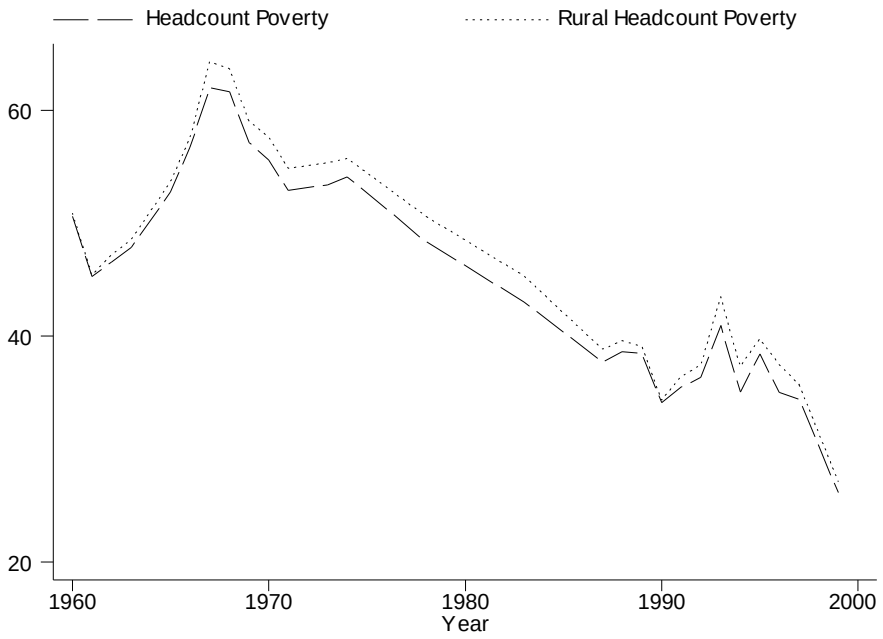


***Figure 10: The development of rural poverty and overall poverty over time***

Taking a look at the relationship between urban poverty and overall poverty in Figure 11, displays that especially between the early 1970s to about the start of the balance-of-payments crisis at the beginning of the1990s urban poverty was considerably lower than overall poverty. Also, to about the mid-1990s there was a sharper fall in urban poverty when compared to the overall headcount figure but also a more pointed increase around the end of the 1990s. Figure 11, then, suggests that rural poverty and overall poverty did not move as closely together as was the case with the rural and the general headcount. It is worth, then, exploring whether we will get different results when distinguishing between rural and urban poverty in our analysis.

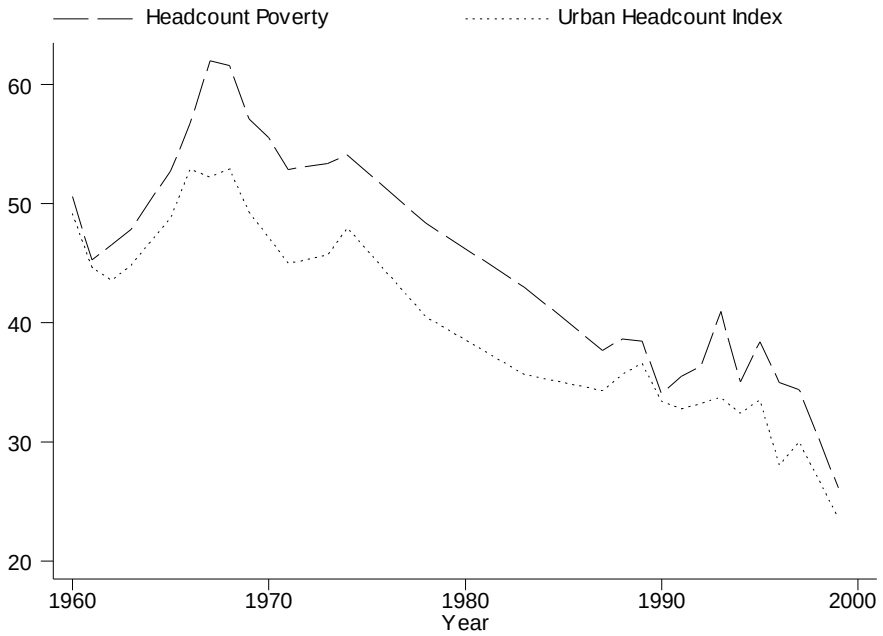


***Figure 11: The development of urban and overall poverty over time.***

The regression results with rural poverty as the dependent variable are presented in Table 3 in the appendix those for urban poverty in Table 3. Turning to the results for rural poverty first, I find no change when compared to the analysis on overall poverty. Here, too, female literacy, development expenditure, the share of manufacturing and population growth are the significant variables. Again, there is no direct impact of openness on poverty in any specification. These results, then, do not deviate from the above observation which is not surprising given the close relationship between rural and the aggregate headcount.

The more interesting observation is that the results for urban poverty slightly deviate from the first analysis. Focusing first on the base line in the first column of Table 4 shows that while there is no change with regard to female literacy, development expenditure and the share of manufacturing, population growth is not significantly correlated with urban poverty whereas inflation is on the 10 percent level. For openness, however, I obtain the same result for all specifications.

Adding agricultural productivity as a variable in the analysis results in a significant negative relationship with urban poverty at the 10 percent level. This indicates that while rural poverty was unaffected by agricultural productivity, urban poverty might have been reduced supposedly due to lower prices for primary commodities.

In sum, using the share of export plus imports to GDP as an indicator for trade openness I do not find a direct impact of openness on poverty – neither positive nor negative. This result also does not change with different specifications and when decomposing overall poverty into rural and urban poverty. The results suggests, though, that female education, development expenditure, industrialization and, to a certain extend, agricultural productivity are negatively related with poverty. Population growth and, to a certain extend, inflation, however, are associated with rising poverty.

Taking a look at Table 1 in the appendix displays a strong correlation between openness and female literacy, the share of manufacturing and growth. As all three are supposed to work in favour of poverty alleviation one can assume an indirect positive effect of openness on poverty reduction.

The share of exports plus imports to GDP is but one way to define openness. Another possibility is to use foreign direct investment (FDI). Hence, in the next section I will proxy India's openness using FDI figures and see whether they have a direct impact on poverty.

*4.3 FDI and Poverty*

Essentially, FDI can influence poverty mainly through three channels (Tambunan, 2004). First, if the growth generated by FDI is labour-intensive overall employment will increase and, in turn, poverty is reduced. Second, FDI could lead to a transfer of new technologies into the host country enhancing the productivity of the local population. In addition, this effect might increase productive employment opportunities. Both factors can work to alleviate poverty. Finally, FDI might raise tax revenues which, if used to finance labour-intensive activities and/or for increased health care and education thus advancing productivity, wages and employment. With regard to Indonesia, Tambunan (2004) finds that FDI mainly works through the first channel of increased labour-intensive employment.

Klein et al. (2002) also find evidence that FDI enhances economic growth and, in addition, improves corporate governance as well as environmental and labour standards. Depending on the nature of growth poverty is reduced. With regard to the very poor, however, they do stress the importance of government intervention regarding the creation of social safety nets as well as the redistribution of income and assets as FDI does not generally redistribute income towards the poorest segments of society.

Bussmann et al. (2002) conduct an empirical study on the effects of FDI for 72 countries for a time span of 20 years from 1970 to 1990. They find that while FDI increases the average income of the economy both income inequality as well as the income share of the poorest 20 percent remains unchanged. Accordingly, they conclude that FDI benefits all segments of society.

In India FDI did not play much of a role before 1990 illustrating the country's economic isolation until the start of the reform period. Figure 12 depicts FDI flows between 1970 and 2000 whereby FDI is expressed in net inflows as percentage of GDP). As can be seen, the level of FDI was quite low prior to reforms but increased immensely right after. While there was witness a drop in the mid-1990s by the end of the decade FDI recovered again.

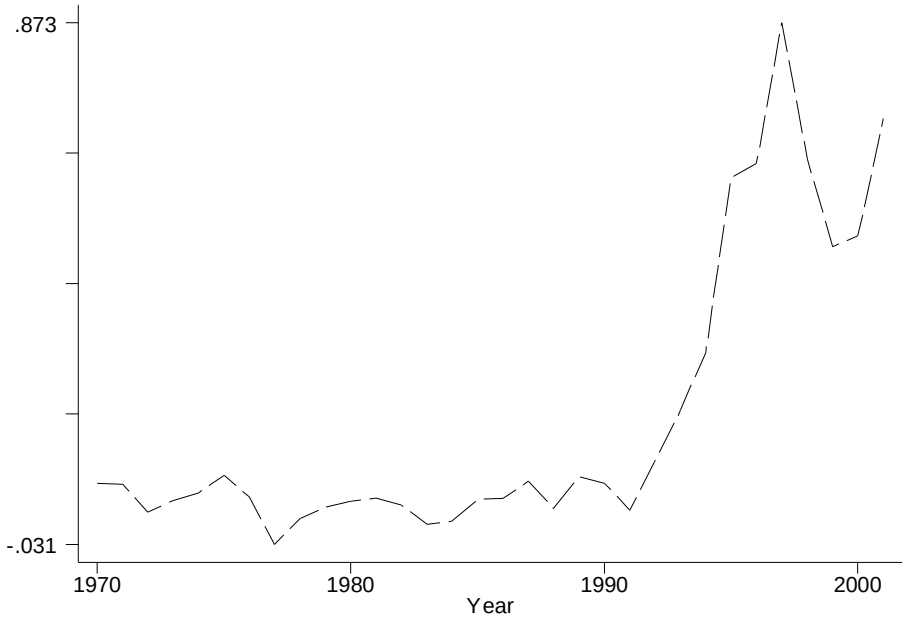


***Figure 12: Foreign direct investment in India 1970 to 2000.***

To determine whether FDI has a direct impact on poverty, I run the same regression as in equation (1) but now replacing the previous openness indicator by FDI. Thus, equation (4) yields.

$$\ln headcount_t = \beta_0 + \beta_1 \cdot \ln FDI_t + \beta_2 \cdot \ln avfemlit_t + \beta_3 \cdot \ln \inf lation_t + \beta_4 \cdot \ln devex_t + \beta_5 \cdot \ln popgrowth_t + \beta_6 \cdot \ln manushare_t \quad (4)$$

Taking a look at Figure 11, reveals a slightly negative relationship between FDI and headcount poverty, although it seems less clear than the relationship between openness and poverty in Figure 8 above.

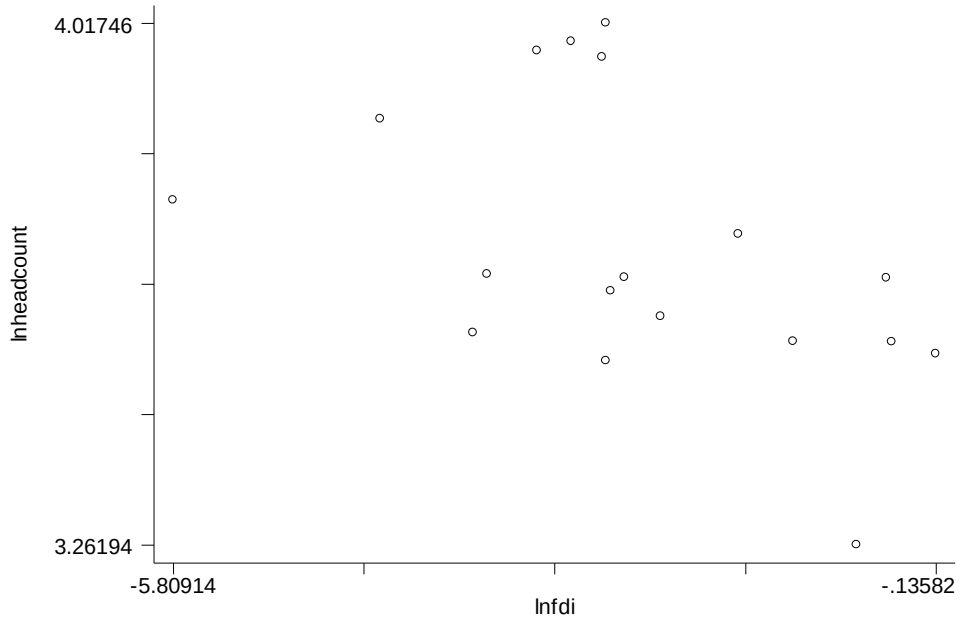


*Figure 12: The relationship between FDI and Poverty.*

The results for the regression represented by equation 4 are shown in the first column of Table 5 in the appendix. They differ slightly from the first analysis above. While FDI is not significantly related to poverty both inflation and population growth have a negative impact on poverty alleviation. Development expenditure seems to have a positive influence on poverty reduction whereas neither female literacy nor the share of manufacturing are statistically significant. Note that we have a very limited amount of observations here – merely 13 – which did not allow conducting a Chow test.

Next, I add growth and the Gini coefficient into the regression analysis. This, however, as depicted in the second column of Table 5 renders all the variables insignificant. More interesting is the third result, represented in the third column of Table 5. Here, agricultural productivity is added as an explanatory variable. As a consequence, FDI is now significantly negative suggesting a poverty alleviating effect. Again, inflation seems to have a poverty increasing effect while female literacy and now also population growth are negatively related with poverty. The overall results here, then, seem to largely depend on the specification which might also be a problem of limited observations.

In a second step I decompose the poverty figure into rural and urban poverty to see whether this affects the results. Not surprisingly, given the close movement of overall and rural poverty, the outcome with regard to the rural headcount is in line with those of the above analysis as depicted in Table 6 in the appendix.

Using urban poverty as the dependent variable, however, changes the picture as Table 6 in the appendix shows. Here, FDI is actually positively correlated with urban poverty as are inflation and population growth whereas development expenditure seems to have poverty reducing effects. Adding growth and the Gini index, again, renders all variables insignificant.

Including agricultural productivity also changes the overall findings with respect to the baseline. While female literacy and inflation are statistically significant at the 5 percent level and show the expected sings, both development expenditure and population growth turn statistically insignificant.

As a look at the results makes clear, the final outcome largely depends on the respective specification regarding the choice of independent variables. While in one specification FDI turns out to be negatively correlated with overall and rural poverty, in another specification it seems to enhance urban poverty. These inconsistencies of FDI as a measure for openness in the analysis may be due to the number of limited observations available for the time period considered. It may also be that FDI is an imperfect proxy for an openness measure for the entire country as it is heavily concentrated in only a few Indian states with Maharashtra and Delhi receiving the lion's share (GOI 2004). It needs to noted, then, that the final results are very ambiguous and do not allow a firm conclusion as to FDI's direct impact on poverty.

## 5. Conclusion

This paper tried to assess the impact of openness on India's poor. In the first part, I examined the changes in poverty under a rather strict trade regime. As has been shown, the choice of a policy of import substitution can be regarded as a direct consequence of the country's struggle for independence from British colonization. After independence, the political decision makers emphasized India's sovereignty which found its economic expression in a policy of self-reliance. In the end, however, this economic strategy led to a balance-of-payments crisis after which the country changed its course towards domestic privatization and trade liberalization. As was illustrated in the second section of this paper, both domestic and trade liberalization, were carried out gradually and very carefully; reflecting the political climate within the country at the time. The reforms, initiated by a minority government, were largely concentrated in areas least disputed by powerful interest groups. The reform process itself, then, was one of compromises between the ruling party and parts of the opposition carried out against the opposing Hindu nationalist party. Thus, for most of India's policy makers the policy change that occurred in the early 1990s was not carried out in the conviction of its necessity; rather, it arose due to an underlying conflict about ethnic identities between Hindu nationalists and the Communist party. This constellation, then, seems to explain the pace and direction the reform process has taken.

As far as its success is concerned, a comparison between the two regimes in section 3 made clear that the country did fare better in the post-reform period. Not only did it achieve higher economic growth; it also accomplished a sharp drop in overall poverty within a decade. Other indicators for human development, such as life expectancy and literacy also continued their positive trend in the post-reform era. Since both economic growth and the decline in overall poverty accelerated after 1991 it is safe to say, then, that India's second development strategy after independence has been more successful than the first.

As the reform package consisted of various policy measures, I have tried in a fourth step to assess whether one can discern a direct impact of openness on poverty. Applying a time series analysis for the previous four decades I do, however, not find supporting evidence for an influence of an open trade regime on the poor – neither positive nor negative. There is also no evidence on the impact of openness on institutional quality. A review of commonly used governance indicators showed that they largely remained unchanged in the post-reform period.

The main findings support the results in the existing literature on poverty stating that female education, public provisions for the poor and industrialization work in favour of the poor while inflation and population growth tend to be harmful factors. Applying foreign direct investment as a possible proxy for openness, though, renders no conclusive results.

Although I do not find unanimous evidence for openness to be helpful for the poor, the combined results of the above discussion and the time series analysis do allow a careful conclusion. Since a more open trade regime was part of India's reform package and since the post-reform period has been quite a success for economic and human development one can maintain that openness, in the very least, tends to be a benign factor with regard to poverty reduction in India.

**References**


Agrawal, P. and T. Srinivasan (2000) 'Social Development in India: Performance and Causes', in K.-L. Tang, (ed.) *Social Development in Asia*, Dordrecht, Kluwer Academic Publishers.

Ahluwalia, M. S. (2002) 'Economic Reforms in India Since 1991: Has Gradualism Worked?', in: *Journal of Economic Perspectives*, Vol. 16, No. 3, pp. 67-88.

Ahulwalia, M. S. (1999) 'India's Economic Reforms', in: Sachs, J., A. Varshney and N. Bajpai (eds.) India in the Era of Economic Reforms, Oxford India Paperbacks, New Delhi, pp. 26-80.

Aksoy, M. (1992) *The Indian Trade Regime*, World Bank Working Paper No. 989, Washington, D. C.

Bajpai, N. and J. Sachs (1997) 'India's Economic Reforms: Some Lessons from East Asia', *The Journal of International Trade & Economic Development*, Vol. 6, No. 2: 135-164.

Bannister, G. J. and K. Thugge (2001) *International Trade and Poverty Alleviation*, IMF Working Paper 01/54, Washington, D.C.

Bardhan, P. K. (1984) The Political Economy of Development in India, Oxford.

Basu, D. C. (1983) '*Introduction to the Constitution of India*', 10th edition, New Delhi.

Behrman, J. R., Foster, A. D., M. R. Rosenzweig and P. Vashishtha (1999) 'Women's Schooling, Home Teaching, and Economic Growth', in: *The Journal of Political Economy*, Vol. 107, No. 4, pp. 682-714.

Bhalla, S. (2000) '*Growth and Poverty in India – Myth and Reality*', www.oxusresearch.com, accessed: Sept. 2004.

Bhalla, S. (2001) 'Has Poverty Declined?', in: *Outlook*, June 25th, Volume XLI, No. 24.

Cardoso, E. (1992) '*Inflation and Poverty*', NBER Working Paper No. 4006, Cambridge, M.A.

Bussmann, M., de Soysa, I. and J. R. Oneal (2002) 'The Effect of Foreign Investment on Economic Development and Income Inequality', ZEF Discussion Paper on Development Policy No. 53, Bonn.

Cardoso, E. (1992) 'Inflation and Poverty, NBER Working Paper No. 4006, Cambridge, M. A.

D'Costa, A. P. (2002) 'Uneven and Combined Development: Understanding India's Software Exports', in: *World Development*, Vol. 31, No. 1, pp. 211-226.

Dash, P. R. (2000) 'Reforms Do Poorly on Poverty Front', in: Times of India, April 19th, New Delhi.

Datt and Ravallion (2002) 'Is India's Economic Growth Leaving the Poor Behind?', in: *Journal of Economic Perspectives*, Vol. 16, No. 3, pp. 89-108.

Deaton, A. and J. Dreze (2002) 'Poverty and Inequality in India: A Re-Examination', in: *Economic and Political Weekly*, September 7th, pp. 3729-48.

De Long, B. J. (2001) 'India Since Independence: An Analytic Growth Narrative', www.j-bradford-delong.net.

Deshpande, R. S., Hatti, N., and A. Jyothishi (2004), Poverty in India: An Institutional Explanation, Paper for presentation at the 18th Conference on Modern South Asian Studies, Lund, Sweden, 6-9 July.

Dhaiya, S. B. and S. Khera (2000) 'India's Development Policy: From Freedom Struggle to Economic Reforms', in: *International Journal of Development Planning Literature*, Vol. 15, No. 4, October-December, pp. 353-366.

Dollar, D., and A. Kraay (2001) 'Growth Is Good for the Poor.', Policy Research Working Paper No. 2587, World Bank, Washington, D.C.

Dutta, D. (2002) '*Effects of Globalisation on Employment and Poverty in Dualistic Economies: The Case of India'*, School of Economics and Political Science, University of Sidney.
Fox, J. W. (2000) 'Poverty in India Since 1974 – A Country Case Study', Technical Report Submitted to USAID, Washington, D. C.
Gang, I. N., Sen, K. and M. S. Yun (2002) '*Caste, Ethnicity and Poverty in Rural India'*, IZA Discussion Paper No. 629, Bonn.
Government of India (2004) 'Tenth Five Year Plan', Planning Commission of India Academic Foundation, New Delhi.
Gupta, S., Davoodi, H. R. and R. Alonso-Terme (2002) 'Does Corruption Affect Income Inequality and Poverty?', in: Abed, G. T. and Gupta, S. (eds.) Governance, Corruption, & Economic Performance, International Monetary Fund, Washington, D. C.
IndiaStat (2004), www.Indiastat.com, last accessed: July 2004.
International Country Risk Guide (2004), PRS Group, New York.
International Financial Statistics (2004), Bank for International Settlements, Basel.
Jha, R. (2000) 'Reducing Poverty and Inequality in India: Has Liberalization Helped?', Paper prepared for the WIDER Project "Rising Income Inequality and Poverty Reduction: Are they Compatible?", Canberra.
Joshi, V. and I. Little (1996) 'India's Economic Reforms – 1991-2001, Oxford.
Kaufmann, D., Kraay, A. and M. Mastruzzi (2003) 'Governance Matters III: Governance Indicators for 1996-2002', Draft for Comment, The World Bank, Washington, D. C.
Klein, M., Aaron, C. and B. Hadjimichael (2002) 'Foreign Direct Investment and Poverty Reduction', FIAS Resources, The World Bank, Washington, D. C.
Munshi, K. and M. R. Rosenzweig (2003) 'Traditional Institutions Meet the Modern World: Caste, Gender and Schooling Choice in a Globalizing Economy, mimeo, Harvard University.
Nayar, B. R. (2001) Globalization and Nationalism – The Changing Balance in India's Economic Policy, 1950-2000, Sage Publications, New Delhi.
Nehru, J. (1946) The Discovery of India, New York.
Oschinski, M. (2003) 'Trade: A Driving Force for India's Development?', in: Bolesta, A. (ed.) International Development and Assistance – Where Politics meets Economy, Warsaw, pp. 48-74.
Panagariya, A. (1994) 'India: New Tiger on the Block?', in: *Journal of International Affairs*, Vol. 48, pp. 193-221.
Rodrik, D. (2001) 'The Global Governance of Trade – As If Development Really Mattered', United Nations Development Programme, New York.
Rosenzweig, M. R. (2003) 'Openness and Poverty Reduction in the Long and Short Run', Paper Presented at the Conference on "The Future of Globalization", Yale University, October 10-11.
Rothemund, D. (1995) 'Die Stadien der wirtschaftlichen Entwicklung', in: Rothemund, D. (ed.) Indien – Kultur, Geschichte, Politik, Wirtschaft, Umwelt: Ein Handbuch, München, pp. 485-523.
Roy, T. (2002) 'Economic History and Modern India: Redefining the Link', in: *Journal of Economic Perspectives*, Vol. 16, No. 3, pp. 109-130.
Sachs, J. (1999) 'Introduction', in: Sachs, J., Varshney, A. and N. Bajpai (eds.) India in the Era of Economic Reforms, pp. 1-25.
Salvatore, D. (1988) '*World Population Trends and Their Impact on Economic Development*', New York, p. 1-9.
Sen, A. (1999) 'Development As Freedom', New York.
Sinha, D. and Sinha, T. (1996) 'Openness and economic growth in India', in: *Indian Journal of Economics*, July, 115-125.

Srinivasan, T. N. (2000) 'Foreign Trade Policies and India's Development', in Kapila, Uma (ed.) *Indian Economy Since Independence*, New Delhi.
Sundaram, K. and S. Tendulkar (2003) 'Indian Debates on Poverty Measurement in the 1990s', Paper presented at the Global Poverty Workshop, March 31st – April 1st 2003, Oxford University.
Tambunan, T. (2004) 'The Impact of Foreign Direct Investment on Poverty Reduction – A Survey of Literature and a Temporary Finding From Indonesia', Center for Industrial Economic Studies, University of Trisakti,
Tendulkar, S. D. (2000) 'Indian Development Strategy', in Kapila, Uma (ed.) *Indian Economy Since Independence*, New Delhi.
The Hindu (2004) 'Population Growth nullifies development programmes', New Delhi, 02.10.2004.
Thorat, S. K. and Desphande, R. S. (1999) 'Caste and Labour Market Discrimination', in: *The Indian Journal of Labour Economics*, Vol. 42, No. 4.
Transparency International (2004), Corruption Perceptions Index, accessible under: http://www.transparency.org/surveys/index.html; last accessed: September 2004.
Varshney, A. (1999) 'Mass Politics or Elite Politics? – India's Economic Reforms in Comparative Perspective', in: Sachs, J., Varshney, A. and N. Bajpai (eds.) India in the Era of Economic Reforms, Oxford India Paperbacks, New Delhi.
World Development Indicators (2002), The World Bank, Washington, D. C.
World Bank (2000) 'India: Policies to Reduce Poverty and Accelerate Sustainable Development', India CDR Study, Washington, D. C.
World Bank (1989) 'India: An Industrializing Economy in Transition', World Bank Country Study, Washington, D. C.

**Appendix**

Table 1: Correlations of Explanatory Variables

| | lnopen | lnfdi | lnavfemlit | lninflation | lndevex | lnpopgrowth | lnmanushare | lngrowth | lngini | lnagriprod |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| lnopen | 1 | | | | | | | | | |
| lnfdi | 0.046 | 1 | | | | | | | | |
| lnavfemlit | 0.8563 | 0.3075 | 1 | | | | | | | |
| lninflation | 0.2115 | 0.082 | 0.4213 | 1 | | | | | | |
| lndevex | 0.2673 | -0.2704 | 0.0969 | 0.2818 | 1 | | | | | |
| lnpopgrowth | -0.3118 | -0.5714 | -0.5537 | -0.0185 | 0.7465 | 1 | | | | |
| lnmanushare | 0.921 | -0.0515 | 0.6258 | 0.1468 | 0.3169 | -0.1169 | 1 | | | |
| lngrowth | 0.9094 | -0.2088 | 0.6821 | 0.1095 | 0.5115 | 0.001 | 0.8469 | 1 | | |
| lngini | -0.0994 | -0.4464 | -0.2901 | -0.3253 | 0.4466 | 0.5697 | -0.0868 | 0.1737 | 1 | |
| lnagriprod | 0.1328 | -0.2099 | 0.2608 | -0.0035 | 0.2148 | -0.0095 | -0.1236 | 0.3544 | 0.2771 | 1 |

Table 2: OLS Results – Dependent Variable is lnheadcount

| | Baseline (1) | (2) | (3) |
|---|---|---|---|
| Lnopen | 0.066<br>(0.56) | 0.085<br>(0.56) | 0.15<br>(1.07) |
| Lnavfemlit | -0.24*<br>(-3.22) | -0.24*<br>(-2.28) | -0.29*<br>(-3.24) |
| Lninflation | 0.043<br>(1.31) | 0.04<br>(0.92) | 0.053*<br>(1.62) |
| Lndevex | -0.061*<br>(-3.91) | -0.06*<br>(-2.24) | -0.063*<br>(-4.03) |
| Lnpopgrowth | 1.24*<br>(2.95) | 1.34*<br>(1.92) | 1.39*<br>(2.40) |
| Lnmanushare | -0.93*<br>(-3.69) | -0.99<br>(-3.06) | -1.06*<br>(-2.72) |
| Lngrowth | | 0.004<br>(0.12) | |
| Lngini | | 0.025<br>(0.03) | |
| Lnagriprod | | | -0.028<br>(-0.97) |
| Const. | 1.85*<br>(2.39) | 1.55<br>(0.57) | 1.25<br>(0.95) |
| $R^2$ | 0.8963 | 0.8889 | 0.9010 |
| No. of Observations | 21 | 19 | 19 |
| Chow Test at 5% level[a] | F(6,12) = 2.33>2.15 | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period |

[a]*Last number is calculated value; t-values in parenthesis.*

Table 3: Dependent Variable is Rural Headcount (lnhcrural)

| | Baseline (1) | (2) | (3) |
|---|---|---|---|
| Lnopen | 0.1<br>(0.88) | 0.09<br>(0.59) | 0.16<br>(1.07) |
| Lnavfemlit | -0.24*<br>(-3.44) | -0.23*<br>(-2.09) | -0.28*<br>(-2.92) |
| Lninflation | 0.04<br>(1.25) | 0.04<br>(0.83) | 0.05<br>(1.49) |
| Lndevex | -0.067*<br>(-4.48) | -0.07*<br>(-2.43) | -0.07*<br>(-4.27) |
| Lnpopgrowth | 1.5*<br>(3.43) | 1.59*<br>(2.17) | 1.55*<br>(2.49) |
| Lnmanushare | -1.04*<br>(-4.13) | -1.07*<br>(-3.22) | -1.1*<br>(-2.68) |
| Lngrowth | | 0.011<br>(0.31) | |
| Lngini | | -0.06<br>(-0.08) | |
| Lnagriprod | | | -0.02<br>(-0.74) |
| Const. | 1.47*<br>(1.92) | 1.6<br>(0.58) | 1.15<br>(0.83) |
| $R^2$ | 0.8896 | 0.8805 | 0.8878 |
| No. of Observations | 21 | 19 | 19 |
| Chow Test at 5% level | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period |

*t-values in parenthesis.*

Table 4: Dependant Variable is Urban Headcount (lnhcurban)

| | Baseline (1) | (2) | (3) |
|---|---|---|---|
| Lnopen | -0.04<br>(-0.27) | 0.08<br>(0.62) | 0.08<br>(0.73) |
| Lnavfemlit | -0.22*<br>(-2.99) | -0.22*<br>(-3.08) | -0.27*<br>(-4.42) |
| Lninflation | 0.05*<br>(1.84) | 0.04<br>(1.38) | 0.05*<br>(2.19) |
| Lndevex | -0.04*<br>(-2.39) | -0.04*<br>(-1.80) | -0.04*<br>(-3.12) |
| Lnpopgrowth | 0.22<br>(0.57) | 0.17<br>(0.35) | 0.49<br>(1.11) |
| Lnmanushare | -0.46*<br>(-1.64) | -0.61*<br>(-2.08) | -0.73*<br>(-2.21) |
| Lngrowth | | -0.02<br>(-0.72) | |
| Lngini | | -0.19<br>(-0.39) | |
| Lnagriprod | | | -0.08*<br>(-1.66) |
| Const. | 3.34*<br>(3.57) | 3.45*<br>(1.78) | 2.25*<br>(2.01) |
| $R^2$ | 0.9084 | 0.9260 | 0.9400 |
| No. of Observations | 21 | 19 | 19 |
| Chow Test at 5% level | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period |

*t-values in parenthesis.*

Table 5: Dependent Variable is lnheadcount

| | Baseline (1) | (2) | (3) |
|---|---|---|---|
| Lnfdi | 0.02<br>(1.26) | -0.03<br>(-0.06) | -0.05*<br>(3.31) |
| Lnavfemlit | -0.06<br>(-0.94) | -0.16<br>(-0.90) | -0.74*<br>(-7.35) |
| Lninflation | 0.05*<br>(2.47) | 0.04<br>(0.88) | 0.07*<br>(5.06) |
| Lndevex | -0.16*<br>(-4.85) | -0.1<br>(-0.67) | 0.05<br>(1.48) |
| Lnpopgrowth | 17.07*<br>(2.86) | 8.08<br>(0.37) | -20.7*<br>(-3.65) |
| Lnmanushare | -0.09<br>(-0.40) | 0.03<br>(0.04) | 0.05<br>(0.18) |
| Lngrowth | | -0.04<br>(-0.28) | |
| Lngini | | 0.28<br>(0.73) | |
| Lnagriprod | | | -0.008<br>(-0.36) |
| Const. | -7.81*<br>(-1.86) | -2.1<br>(-0.13) | 19.9*<br>(5.05) |
| $R^2$ | 0.9660 | 0.9728 | 0.9970 |
| No. of Observations | 13 | 11 | 11 |
| Chow Test at 5% level | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period |

*t-values in parenthesis.*

Table 6: Dependent Variable is lnhcrural

| | Baseline (1) | (2) | (3) |
|---|---|---|---|
| Lnfdi | 0.01<br>(0.59) | -0.02<br>(-0.33) | -0.05*<br>(-2.95) |
| Lnavfemlit | -0.08<br>(-1.40) | -0.17<br>(-1.03) | -0.65*<br>(-5.86) |
| Lninflation | 0.04*<br>(2.53) | 0.04<br>(0.84) | 0.07*<br>(4.16) |
| Lndevex | -0.15*<br>(-5.14) | -0.08<br>(-0.65) | 0.02<br>(0.64) |
| Lnpopgrowth | 14.03*<br>(2.68) | 4.87<br>(0.25) | -17.08*<br>(-2.71) |
| Lnmanushare | -0.16<br>(-0.76) | 0.02<br>(0.04) | -0.01<br>(-0.05) |
| Lngrowth | | -0.05<br>(-0.39) | |
| Lngini | | 0.22<br>(0.62) | |
| Lnagriprod | | | -0.005<br>(-0.23) |
| Const. | -5.65<br>(-1.55) | 0.45<br>(0.03) | 17.3*<br>(3.96) |
| $R^2$ | 0.9747 | 0.9787 | 0.9963 |
| No. of Observations | 13 | 11 | 11 |
| Chow Test at 5% level | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period |

*t-values in parenthesis.*

Table 7: Dependent Variable is lnhcurban

| | Baseline (1) | (2) | (3) |
|---|---|---|---|
| Lnfdi | 0.044* (2.43) | 0.03 (0.59) | -0.02 (-0.43) |
| Lnavfemlit | -0.09 (-0.82) | -0.2 (-1.17) | -0.67* (-2.55) |
| Lninflation | 0.06* (2.60) | 0.06 (1.23) | 0.08* (2.95) |
| Lndevex | -0.14* (-2.76) | -0.09 (-0.63) | 0.06 (0.53) |
| Lnpopgrowth | 18.19* (1.95) | 9.2 (0.43) | -17.79 (-0.97) |
| Lnmanushare | 0.07 (0.28) | 0.02 (0.02) | 0.07 (0.14) |
| Lngrowth | | 0.0005 (0.00) | |
| Lngini | | 0.1 (0.31) | |
| Lnagriprod | | | -0.01 (-0.24) |
| Const. | -8.66 (-1.32) | -2.5 (-0.16) | 17.5 (1.38) |
| $R^2$ | 0.9272 | 0.9609 | 0.9872 |
| No. of Observations | 13 | 11 | 11 |
| Chow Test at 5% level | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period | Not enough obs. in post 1991 period |

*t-values in parenthesis*