



**Stanford**  
Center for International  
Development

**Working Paper No. 449**

**Determinants of the Patterns Within and Across Countries of  
South Asia**

by

**T.N. Srinivasan**

**September 2011**



Stanford University  
John A. and Cynthia Fry Gunn Building, 366 Galvez Street  
Stanford, CA 94305-6015

# **Determinants of the Patterns Within and Across Countries of South Asia**

**T.N. Srinivasan**\*

**September 2011**

## **Abstract**

The problems of agriculture and poverty cannot be addressed without reducing the number of workers and their families dependent on land, thereby raising productivity. There are substantial rural-urban and male-female differences in rates of labor force participation, employment, and unemployment, as well as informality of employment that exist within and across South Asian countries. Also, most of the employed in South Asia work in the informal sector. Regular wage or salaried employment in formal sectors accounted for a small share in total employment. Analyzing these differences and devising policies to address them requires a basic understanding of the determinants and the motivation underlying behavioral decisions at the household level.

To the best of my knowledge, the rich data on household level variables available in repeated cross sections, particularly from surveys of employment, unemployment and labor force participation have not been widely exploited for econometrically estimating an integrated model of determinants of labor force participation, employment and unemployment, and investment in education, although some studies using aggregate data are available, particularly on the returns to education at various levels. In what follows, I will summarize selectively some studies, not all necessarily based on household surveys, in the economics literature.

**Keywords:** Utilization of labor, South Asia, rural-urban, urbanization, agricultural land, policy implications, household level data.

**JEL Classification No.:** J11, J20, J40, J60, O15, O20, R00.

---

\* Samuel C. Park Jr. Professor of Economics, Yale University, Yong Pung How Chair Professor, National University of Singapore, and Non-resident Senior Research Fellow, Stanford Center for International Development, Stanford University. Email: t.srinivasan@yale.edu.

## **Utilization of Labour in South Asia Part II**

### **Determinants of the Patterns Within and Across Countries of South Asia**

**T.N. Srinivasan**

#### **1. Introduction**

The problems of agriculture and poverty cannot be addressed without reducing the number of workers and their families) dependent on land, and raising productivity. Long ago in 1938 in his memorandum as chairman of the National Planning Committee of the Indian National Congress, Nehru stated (IIAPR,1998) that “more important is the planning of different kinds of industries, large, medium and cottage, which alone may effectively mitigate the present pressure on soil. Within a decade the aim should be to produce a balanced economic structure in which about half the population would depend on agriculture” emphasis added) Alas, even after nearly seven decades since he wrote, the population dependant on agriculture is 60 percent or more. The development industrial strategy that Nehru envisaged then of planning larger, medium and cottage industries is not what was pursued since independence by the government headed by him. Instead, the emphasis was on industrialization with emphasis on capital-intensive heavy industries, a strategy that slowed down the exit of the population from agriculture to more production employment elsewhere.

In part 1 it was documented that almost all have common features such as large shares of rural population, of self-employment, and of agriculture, however there are substantial rural-urban and male-female differences in rates of labor force participation, employment, unemployment as well as informality of employment exist within and across South Asian countries. Also, most of the employed in South Asia work in the informal sector. Regular wage or salaried employment in formal sectors accounted for small share in total employment.

Analyzing these differences and devising policies to address them requires a basic understanding of the determinants and the motivation underlying behavioral decisions at the household level. A rich anthropological, economic, political and sociological literature exists on households in developing countries.

The available studies on labor utilization, they could be grouped into three categories: purely theoretical, empirical dealing with specific aspects of labor utilization, and lastly cross-country studies on the implications for labor utilization of policy devices such as development and industrialization strategies, openness to foreign trade, and finance investment. The literatures on developing countries in general and on South Asian countries in particular are vast.

Very broadly speaking, the economic literature moved away from a simplistic assertion that households were irrational towards an empirically testable hypothesis that given the myriad socio-economic constraints that they were (and still are) facing, households were, if not rational inter-temporal utility maximizers, at least adopters of strategies that enable them to cope with their constraints to the best they can, given their limited knowledge, constraints that are complex and varied. Moreover, they face an environment of significant risk and uncertainty, be it of fertility, morbidity and mortality, or of employment or of agricultural output or prices or of public policy and many more.

Household surveys, particularly consumption expenditure surveys, are common in South Asia. India is a pioneer in the design and use of large scale multipurpose sample surveys in many areas. Its consumer expenditure surveys date back to the early fifties. The data generated by these surveys in India and other countries of the region have been used to estimate the structure household demand as a function of total consumption expenditure or income, demographic characteristics and others. The data have also been used to study and monitor the trends in poverty and such studies also been pioneering (Deaton and Kozell, 2005).

In the data from a cross-section of households at a point of time, all households, at least those living in the same village, presumably face the same set of prices. As such the estimated demand structure from such cross sections either do not include price variables at all, thus precluding the estimation of price elasticities of demand or alternatively use inter village and inter regional price variations to estimate them. To the best of my knowledge, the rich data on household level variables available in repeated cross sections, particularly from surveys of employment, unemployment and labor force participation have not been widely exploited for econometrically estimating an integrated model of determinants of labor force participation, employment and

unemployment, investment in education, although some studies using aggregate data are available, particularly on the returns to education at various levels. In what follows, I will summarize selectively some studies, not all necessarily based on household surveys of the economics literature.

## 2. Determinants of Decisions on Utilization of Labour

### 2.1 Importance of Agricultural Sector

It is no surprise that given the importance of the agricultural sector for employment and livelihood of a large share of the population in developing countries, decisions of agricultural households have attracted significant scholarly attention (e.g. Singh et al (1986)). An early concern was on the separability of leisure-income trade-off in labor supply of members of a farm household, from the labor-use decisions for income maximization in production of the household farm. It was shown, that as long as a farmer faced a purely competitive market for her and her family labor, the two decisions are separable, and in particular, the decision on the use of family and hired labor in the farm depended only on income-maximization decision. Clearly, given the fact that a substantial fraction of the self-employed in rural areas are either employees on farms or unpaid workers in the family farm, whether or not the competitive market assumption is valid is crucial to the analysis of self-employment.

## **2.2 Land Use and Land Productivity**

### **2.2.1 Land Ownership and Access**

Since independence the possibility of more rapid exit was precluded by assumption and the solution to generation of productive employment for a growing labour was sought largely in a more efficient utilization of labour and raising its productivity without a rapid change in sectoral and locational patterns of utilization. The distribution of ownership of land, the essential input to cultivation was highly concentrated in South Asia. Historically, tenancy of various forms (though predominantly of share cropping arrangements) had developed to enable those who owned very little or no land to access land for cultivation. Tenancies were deemed

exploitative. After independence from colonial rule, reform of land ownership and tenancy were instituted. Yet, other than the early success in the abolition of large intermediaries called *Zamindars*, these reforms had very little impact in reducing the concentration of land. For example in India, decadal data show that the percentage of landless rural households has remained around 11 percent between 1961-62 and 2003, while average area owned per household (excluding the landless) fell from 2 hectares to 0.8 hectares, largely due to demographic pressure. The Gini coefficient of the distribution was almost constantly varying in the narrow range of 0.71 to 0.74, with three of the four decadal observations being 0.71. However, the share of owners of marginal land with less than a hectare increased from 66 percent to 80 percent, with their share in land owned increased from 7.6 to 23.0 percent. At the same time the share of large owners owning more than 10 hectares declined from 3 to 0.5 percent and their share of land owned declined from 28 percent to 12 percent (NSS, 2003a, Chapter 3).

The success of tenancy arrangements in creating less concentration of land access for cultivation relative to that of land ownership is seen from the changes in the distribution of operational holdings over the same four decades. The average area operated per holding declined significantly from 2.61 hectares in 1960-61 to 1.06 hectares, due to the increase in the number of holdings which doubled due to demographic pressure. However, the Gini coefficient of the distribution ranged within 0.557 and 0.596. The fact that Gini for the distribution operational holdings is much less than that for the distribution of ownership holdings in each of the years shows that tenancies have succeeded in creating a relatively less concentrated distribution of land for cultivation. Marginal holdings of less than a hectare have increased their share in number of holdings from 20 percent to 71 percent, with their share in area operated increased from 7 percent to 22 percent. At the other end of the distribution, large holding of more than 10 hectares decreased from 4.5 to 0.8 percent and their share of land (NSS (2003b), Chapter 3).

Explaining an early common empirical finding that land productivity was higher on small farms motivated many studies. Explanations of this finding included possible land quality differences between small

and large farms, of differences in labor-use based on the assumption that unit cost of labor was lower on small farms that use primarily labour of the owner and his family, and many others. The finding and its explanations are consistent with the common assumption that the production functions on farms are constant returns to scale once inputs were measured in quality adjusted units. The literature on farm size productivity relationship in India is vast. Early contributions include Amartya Sen. (1962, 1964). Sen returned to this issue in a later paper (Rudra and Sen, 1980). Srinivasan (1972) explains it as an implication of the choice farm households with different sizes of landholdings of inputs while facing uncertainty in the resulting outputs. He assumes that all households have the same preferences over uncertain income that are characterized by non-increasing absolute and non-decreasing relative risk aversion and that output was scale-neutral with respect to inputs and uncertainty was seen as a multiplicative.

The scale-neutrality assumption came to the fore again when green revolution technology, mostly of cultivation of high yielding dwarf varieties of rice and wheat, became available in the late nineteen sixties. The new technology was presumed to be riskier whether small and large farmers would be able to adopt the new riskier technology and would not be disadvantaged relative to large farmers became important. Interestingly, as long as the new production function was of constant returns to scale, which it would be if the technological change was Hicks neutral as it was believed to be, and risk was multiplicative in principle, there will be no differential expected returns for small and large farmers from the adoption of new technology, provided both groups had equal access to the same prices for inputs. This being the case attention shifted to the proviso on access to and prices of inputs, such as irrigation water and fertilizers and the risk-return trade-off. These two inputs have to be used more intensively per unit of land for the realization of the full benefits of the new technology. To induce the farmers to adopt the potentially riskier new technology and to ensure the small farmers also had adequate access to fertilizers, and to new seeds are able to invest in irrigation such as tube wells and so on, a whole host of policy interventions were introduced. In some Indian states, electricity generated by state-owned and operated enterprises was supplied free of cost to farmers. However given the overall inefficiency of state electricity distribution, outright theft of electricity, the farmers were not assured of

electricity of a steady voltage at the times that would have liked to run their pump sets. These included some area based crop insurance schemes, input subsidies, guaranteed support prices, and credit subsidies and others that were introduced in India. The so called procurement prices, at which the supplies were purchased for the public distribution system, were initially below the ruling market prices so that the cost to the exchequer of the then limited purchases for the procurement system was reduced. In fact, procurement system was then a compulsory levy system with implicit taxation. With procurement no longer much below farm harvest prices in the market there was very little of an implicit tax. With the rise in procurement prices year after year and the price at which purchasers buy their allotted amount from fair price increasing slowly if at all, and costs of shops of the public distribution system transport, storage

## **2.3 Price Interventions in Agricultural and their Political Economy**

### **2.3.1 Subsidies and Fiscal Deficits**

The political economy of the trends in the public intervention prices and the subsidies in India is fascinating (see Srinivasan, 2009b, for details). First, although initially the subsidies were introduced to encourage the cultivation of high yielding varieties of rice and wheat, they were not time bound so that they could be withdrawn once the technology was very widely adopted and were no longer necessary. Moreover, vested interests emerged for maintaining and increasing the subsidies and became politically powerful. For example, because of political pressure, procurement prices became support prices at which the government stood ready to purchase whatever amounts were offered were increased regularly and the minimum quality standards such as moisture content for purchase of procured grains was often lowered in response to such pressure following unseasonal rains at harvest time. The ever increasing subsidies for fertilizers, food grains and fuel, not counting credit and other subsidies, came to 3.9 percent of GDP in fiscal year 2008-09. In addition to price subsidies, external trade in food grains, vegetable oils, and sugar was assigned to monopolistic state trading companies.



Besides the budgetary costs, the distortions from the subsidies, and other interventions led to misallocation of resources. Replacing subsidized supply of food, kerosene and other commodities to the poor by a lump sum income transfer has been proposed but not adopted. Interestingly, Bangladesh has eliminated or substantially reduced food and agricultural input subsidies for agriculture in a political-economy context not that different from India's. Yet India has been unable to reduce the subsidies. Several implications of the distortionary policy interventions in agriculture and indeed the whole economy should be noted. First, to the extent some of these distortions cannot be removed for any reason, but most likely because of the problem of facing politically powerful vested interests that do not want them removed, the task of removing other distortions becomes far more complex and also context specific, the prime reason being that removing them while some distortions remain could make the situation worse off from a welfare perspective as compared to not removing them. Whether or not they would depends on the context specific determination whether beneficial effects of their removal falls short or exceeds the possible increase in the deleterious effects of the remaining distortions. Second, the balance in the political power of vested interests in favour of and against removal or retention of specific distortion could itself change during the process of reform. Third, while replacing distortionary with non-distortionary intervention to achieve the same objective would, *ceteris paribus*, raise welfare and reduce budgetary outlays, it is possible that implementing the non-distortionary interventions could increase administrative cost over and above what was being incurred prior to the replacement.

The effects distortions and their budgetary costs could have serious impact in the Indian context in which the ratio of overall fiscal deficit and of general government debt are unsustainably high according to many analysts. The facts that burden of any reduction fiscal deficits have been almost invariably through reductions in capital expenditures, particularly public investments. Some analysts including the Expert Group on Agricultural Indebtedness (ECAI) appointed by the Finance Ministry in its report (EGAI, 2007) argue that in post 1991 reform era of economic liberalization public sector investment in general and in agriculture in particular have declined and the growth of agriculture both in terms of gross value added and in terms of gross output has decelerated as compared to the nineteen eighties. I have argued in Srinivasan (2009b) that the

picture painted in EGAI is based on misinterpreting the data. Private and Public investment together as a share of GDP has remained more or less constant at around 3 percent. Apparently any shortfall in public investment has been compensated by increases in private investment which is likely to have been more effective in raising output.

The Economic Survey of the Ministry of Finance (MOF, 2010, p. 207) concludes, perhaps in a banal fashion (though banalities are often factual statements) that “To sum up, we need to address the challenges of the agriculture through comprehensive and coordinated efforts. Renewed attention needs to be paid to improving farm production and productivity, better utilization of agricultural inputs, proper marketing infrastructure support, stepping up investment in agriculture with due emphasis on environmental concerns and efficient food management.” (emphasis added) Other than appealing to nature or praying to the Hindu rain god Varuna for stable weather and good monsoon rainfall etc., this covers everything without specifying anyone who would be responsible for implementing the tasks and held accountable for doing so! The subsequent survey (MOF, 2011, p. 216) conveys a very similar message

“...To conclude, raising farm productivity with adequate focus on rain fed areas, diversification of Indian agriculture from just crop farming to livestock, fisheries and poultry and horticulture while simultaneously addressing environmental concerns should be the focus of the agricultural sector. Higher levels of investment are required for not only increasing farm productivity but also creating adequate infrastructure for transport, storage and distribution of agricultural produce.”

### **2.3.2 Impact on Agriculture of Policy Interventions in Non-Agricultural Sectors**

The prospects and outcomes on employment for the participants in the labor force and indeed for the participation decision itself depend to a significant extent on what happens in the agriculture because of its large share of employment in the country as a whole and equally on what happens outside of agriculture. In particular whether sufficiently productive employment opportunities in manufacturing, other industry as well as services are being created to enable those in less productive employment in agriculture and other primary activities to move to non-agriculture is an important issue not only for employment outside of agriculture but also in agriculture. Employment prospects depend not just on employment policies per se but also on other policies, such as on investment, international trade, fiscal and monetary policies, including exchange rate policies, health and education policies and others to the extent they affect allocation of resources across industries and sectors at a point in time and over time.

## 2.4 Foreign Trade and Investment Interventions

Helpman and Itskhoki (2007 Abstract) analyze the interaction of labor market rigidities and impediments to international trade in shaping welfare, trade flows, productivity, price levels and unemployment rates. Their analysis is based on,

a two-country two-sector model of international trade in which one sector produces homogeneous products while the other produces differentiated products. The differentiated-product industry has firm heterogeneity, monopolistic competition, search and matching in its labor market, and wage bargaining. Some of the workers searching for jobs end up being unemployed. Countries are similar except for frictions in their labor markets.

They show that,

both countries gain from trade but that the flexible country – which has lower labor market frictions – gains proportionately more. A flexible labor market confers comparative advantage; the flexible country exports differentiated products on net. A country benefits by lowering frictions in its labor market, but this harms the country's trade partner. And the simultaneous proportional lowering of labor market frictions in both countries benefits both of them. The model generates rich patterns of unemployment. Specifically, trade integration – which benefits both countries – may raise their rates of unemployment. Moreover, differences in rates of unemployment do not necessarily reflect differences in labor market rigidities; the rate of unemployment can be higher or lower in the flexible country. Finally, we show that the flexible country has both higher total factor productivity and a lower price level, which operates against the standard Balassa-Samuelson effect.

India and Pakistan insulated domestic producers from international competition, and also discouraged foreign investment (less so currently) and imports of foreign technology. These policies blunted significant investment in and development of labor intensive manufacturing to supply competitively domestic and foreign markets. In contrast, China, after its opening to foreign trade and investment in 1978 courted and attracted investment by Chinese entrepreneurs from Hong Kong, Taiwan and South East Asia who had experience in manufacturing and assembling labor intensive products for exports. They helped China become gain a large share of world exports of such products even prior to its formal accession to the WTO in 2001. The rapid growth of output and exports of such labor intensive industries also led to rapid growth in GDP and employment.

Except apparel manufacture and exports, such industries have not grown rapidly in South Asia. China's policy of establishing Special Economic Zones (SEZs) with high quality infra-structure, exemption from labor laws that limited the freedom of employers to hire and fire workers as circumstances warranted, and with no formal ceilings on firm size or extent foreign ownership was very successful. India belatedly began creating its

own SEZs but with only few of the features mentioned above that made Chinese SEZs vary successful, not including, most importantly, exemption from labor laws. Not enough time has elapsed to evaluate the performance of Indian SEZs particularly with respect to creation of employment on a sustainable basis.

The potential analytical relevance of these findings for South Asian countries is evident once we identify them with that country of the Helpman and Itskhoki model with rigidities on labor utilization and trade impediments, although in the production structure, the identification of their non-agricultural sector with those producing differentiated products may be questioned.

## 2.5 Formal and Informal Sectors of Employment<sup>1</sup>

Meghir et al (2009) estimate an econometric model based on Brazilian data that is founded in economic theory of wages and informality in developing countries. They argue that,

Informal labour markets are a standard characteristic of labour markets in developing countries. It is often argued indeed that they are the engine of growth because their existence allows firms to operate in an environment where wage and regulatory costs are lower. On the other hand informality means that the amount of insurance offered to workers is lower. Thus the key question is how should one design policy on informality; what is the impact of a tighter regulatory framework on employment in the formal and the informal sector and on the distribution of wages.

In their model,

Firms are heterogeneous and decide endogenously in which sector to locate. Workers engage in both off the job and on the job search and decide which offers to accept. This introduces direct transitions across sectors which matches the evidence in the data about job mobility.

They use their model to discuss relative merits of alternative policies towards informality. The concluding section of their paper was yet to be written at the time of its presentation. Their tentative findings are:

- (i) job destruction rates from the informal sector are basically the same across genders and education. There is some variation for the informal job destruction rates, with the highest rates seen from low education males whose jobs are expected to last less than 5 years (with no job mobility). Low education males also receive about one offer every 11 months to move to an alternative job in the informal sector. Women tend to have lower arrival rates when unemployed, although low education women fare worse than high educated ones in this respect.
- (ii) There are interesting regional and time variations:

In many cases we see job destruction rates increasing over time and the arrival rates for the unemployed also increasing. Moreover the arrival rates for jobs in the formal and the informal sector do not always move in the

---

<sup>1</sup> The problem of clearly defining what characteristics of an enterprise or sector or of employment could be used to label them as informal or formal is formidable. Different authors have used different definitions. This had to have led to confusion. This issue crops up in this and subsequent sections.

same direction. Overall, periods of lower unemployment are associated with higher job mobility, particularly in the informal sector.

(iii) “There is substantial variation in the cost of informality both across region and time...the estimated costs of informality has been decreasing according to our model estimates.”

Unfortunately their policy simulations are as yet unavailable.

A joint study by the ILO and WTO (2009) is a cross-country analysis of the impact of Globalization on Informal Jobs in Developing Countries. The executive summary concludes with some elaborations of its reasoning and empirical results supporting its conclusions. These are,

(i) Globalization has had a limited effect in reducing labour market vulnerabilities in many developing economies as economic dynamism has not reduced high informality rates (ii) In some instances trade reforms have increased labour market vulnerabilities in the short run and seem to bring benefits to employment and wages only in the long terms (iii) Informal labour markets have weakened export performance in developing countries and created poverty traps for countries with vulnerable labour markets (iv) Policies can play a decisive role in raising benefits from globalization in developing countries, by enabling formalization processes and exploiting complementarities between trade and labour market reforms.

Executive summary recognizes,

economic theory offers little in terms of strong predictions about the effect of trade opening on informality ... notwithstanding the plausibility in theory of the transmission channels, trade reforms have been shown in many instances to result in labour market reactions which differ from those posited by a priori linkages... the limited amount of evidence available does not allow us to draw any general conclusions regarding the effect of trade opening on informal employment.

This is indeed the appropriate inference. Yet the study seems to draw the above conclusions, though these are qualified and nuanced in its elaboration.

The theory of the Second Best and its elaboration in the Generalized Theory of Distortions most famously by Jagdish Bhagwati (1971) and his co-authors over the years demonstrate that trade reforms in the presence of distortions (domestic and/ external) need not necessarily lead to the same outcomes that in the absence of such distortions theory predicts would occur. The extent and characteristics of the differences, if any in the outcomes would depend on the specific contexts, that is, the particular characteristics of the economy, its range of domestic/external distortions, and above all its political economy. Using Avinash Dixit’s (2006) formulation in his transactions cost approach traditional policy analyses assume a benevolent (i.e. social welfare

maximizing), omniscient (i.e. one who knows all possible present and future contingencies and their probability distributions) and omnipotent (i.e. one who has control over all instruments of policy and the ability to enforce them) policy makers. Obviously the outcomes of any policy choice made by her will not deviate from what she intended. By the same token, given any departure from the above assumptions characterizing the policy maker, any policy choice by her could lead to outcomes unintended by her.

I would argue that analyses of outcomes such as of globalization by ILO-WTO are illustrations of the Dixit proposition. Without delving into the specific contexts of the economics and of their policy makers (i.e. the political economy) the study reaches broad conclusions for the countries studied and suggests policy prescriptions. This is not to say that the analyses and prescriptions are necessarily inappropriate or invalid, but only their appropriateness and validity are not rigorously demonstrated in the study.<sup>2</sup>

Wahiduddin Mahmud (2001) report for the ILO as in input to a National Action Generation in the informal sector poses two basic questions: (i) “Whether the informal activities provide a sufficiently promising means of engendering labour-intensive growth of the economy by efficiently utilizing the surplus labour.” (ii) “Whether these activities are productive enough to ensure a decent income and level of living or are low-productivity activities of a residual nature to which people turn merely as a last resort. The second question also relates to the debate concerning the so-called ‘push versus pull’ factors underlying the shift of rural labour out of agriculture and the rural-urban migration labour.”

It begins by recognizing the problem of defining the formal-informal divide in the economy and for its purpose, defines it in conformity with ILO, as a heterogeneous sector, comprising of enterprises have the following several characteristics in different depress: “requiring minimal capital investment with low entry barriers; involving mostly self-employment and employment of unpaid family workers (and having informal employer-employee relationship in case of hired labour); using labour-intensive technology requiring low-level skills; and operating mostly outside the formal legal framework.” The paper concludes that,

---

<sup>2</sup> Unfortunately ILO-WTO study is by no means the only one that suffers from this analytical lacunae. Most of the studies of globalization and of the recent financial crisis even before the end of the crisis fall into the same category.

the informal sector, in whatever way it is defined, provides employment to the vast majority of the non-agricultural labour force. Because of its sheer size in terms of employment, the informal sector must figure prominently in any arithmetic of the growth scenario for the economy as a whole....The incorporation of the informal sector into an overall growth strategy should be aimed at making the sector a vehicle for labour-intensive efficient economic growth rather than a mere refuge for surplus...for sustainable and poverty-alleviating growth of the rural economy, the growth of the (RNF) sector needs to be based on a proper balance among enterprises operating at different scales (which also means a balance between creation of self-employment versus wage employment), and supported by strong agricultural growth....The vast majority of small-scale entrepreneurs are in fact excluded both from microcredit (since they do not belong to the target groups of NGOs) and from the formal banking system (since they are unable to offer collateral and therefore needs supervised credit). They have to therefore depend on informal sources of credit, which are generally inadequate and also charge very high rates of interest....Empirical findings presented in this study suggest that the growth of semi-urban areas or rural towns can promote the growth of the informal sector activities in a way that could fit in well with an overall development strategy.

## **2.6 Patterns of Growth, Domestic Labour Regulations on Employment and Real Wages**

According to Islam (2009), “the pattern of economic growth in terms of the sector and sub-sector composition of output is important in determining the employment outcome of growth.” He extends Kaldor’s analysis of economic growth where sustained economic growth requires a high rate of growth of manufacturing in relation to overall GDP growth and growth of other sectors,” and argues that, “such growth may also be conducive to a high rate of employment growth.” In his reading of the data, some countries of East and South East Asia (ESEA) followed a pattern of growth that was conducive to a high rate of employment growth – they “not only had higher growth manufacturing in relation to overall GDP growth, the sector composition of the manufacturing sector was also more labour-intensive (at least during the initial stages of their growth) than in countries of South Asia. As a result, the employment intensity of growth during the initial stages of their development was also higher than in the latter.” Lastly on a possible trade-off between employment growth and labour productivity, Islam points out that “depending on the pattern of growth, it should be possible to achieve a balance between employment and productivity growth,” and demonstrates empirically that countries of ESEA, “have been able to achieve a more balanced growth of employment and labour productivity than those of South Asia.”

There is a belief, not necessarily supported by a rigorous econometric analysis founded on economic theory that forces of globalization and domestic deregulation of labour use have (Standing, 1989; Ozler, 1999) have led to feminization of the labour force through one or more channels such as substitution of costlier men’s

labour by women's, loss of men's jobs and worsening income distribution following increased openness and possibly others. Mahmud (2003) addresses this issue in the context of Bangladesh and finds that the evidence for feminization is unambiguous, with women entering the labour force at a faster pace after the mid 1980s than before. Female labour force grew at an annual rate of 16.7 percent, six times (four times) faster than that of male (total) labour force. However, the number of female workers in wage/salary employment has not increased with unpaid employment, particularly in agricultural work has absorbed the bulk of female work. However this fact need not necessarily imply that family welfare has been adversely affected. Mahmud argues that in a dynamic sense the picture is less gloomy for three reasons; first, not only growth of paid employment is greater for women but also the chance of new female entrants getting paid employment has increased over time; second, the latter improvement has been greater in urban areas; third, non-agricultural employment with a slower increase in unpaid employment is larger in urban areas, thus making women workers better off than in rural areas.

The analysis of Rahman (2009) points out that official data in Bangladesh since 1990-91 on real wage trends have serious shortcomings. They are inconsistent with larger comparable household income and expenditure survey (HIES) data, available for a shorter period. Although the latter show consistent pictures of movement in wages and underemployment, with small changes in real wages and rising unemployment between 2000 and 2005, they are inconsistent with the large declines in poverty during 2000-05 seen in the same data.

Srinivasan (2010, 99-102) points out that in India, wage data of agricultural workers and employees of public sector workers are available on a regular basis. Wage data from infrequent occupational-wage surveys (only six in more than four decades between 1958-59 and 2002) and data on average wage earnings per day for casual labourers and workers employed on a regular wage/salary basis are also available in the Employment and Unemployment Survey (EUS) of the National Sample Survey Organization. Unfortunately self-employed, for whom wage income and wage rates are not applicable, is the dominant group among the employed, particularly in rural areas of India, where most of the employed live and work. Those employed on a regular wage/salary basis account for only 10 percent for both sexes of employed in rural areas and much higher, 41 percent of



males and 36 percent of females employed in urban areas. However, urban data are relevant only for a minority of 25 percent of all Indian workers. The comprehensive report of the National Commission on Labour, published in 2002, approaches labour issues, including wages, in a formal and legalistic way by emphasizing enforcement of labour laws and India's commitments in international agreements and not from a factual evaluation of trends and their analytical explanations, based on actual labour market conditions.

Srinivasan (2010, Tables 13-14) presents the trends in wages and wage/earnings as seen in the available data. In his view, without a deeper analysis, the trends though suggestive are not conclusive from a causal and policy perspectives. Very few analysts have attempted such analyses, particularly of the rich data in EUS on characteristics of worker, their households, and their sectors of employment as earnings. The situation is similar in Pakistan as well.

## **2.7 Broad Ranging Analyses of Policy Challenges: Country Studies**

### **2.7.1 Bangladesh**

Hossain (2009) analyzes the dynamics of rural poverty in Bangladesh using three waves of panel data on households in 1987-88, 2000 and 2007. The number of households studied increased from 1239 in 1987 to 1888 in 2000 and 2010 in 2007. A large number of households, 874 between 1987 -1988 and 2000, and 1605 between 2000 and 2007 remained intact. The net additions to the number of households in 2000 and 2007 were due to household splitting and forming separate households and net in migration into the villages studied. For the analysis of poverty the author uses the truncated sample of non-split households.

Hossain's analytical framework is an ordinary least squares regression of the change in logarithm of a household's per capita income in one wave over the previous wave on the logarithm of its per capita income in the previous wave, its size and land it owned, changes as compared to the previous wave in its owned land, irrigated land, number of its members who work in agriculture and outside agriculture, education of its working members, number of its members working abroad and its non-land fixed assets, and lastly the household's characteristics such as age of household head, dummies to denote whether its head is a female, it experienced adverse shocks, and shifts in the primary occupation the household from farm to non-farm occupation, from

agricultural labour to non-farm and farm occupations. Except for change in a household's endowment of irrigated land (viewed as a proxy for technical change) and age of household head, all the other fifteen explanatory variables have statistically significant coefficients in the regressions for the change from 1987 to 2000 panel or 2000 to 2007 panel, with eleven coefficients being statistically significant in both. The significant coefficient of each of the eleven variables had the same sign in both regressions. Initial income had a significant negative coefficient and the size of initial ownership of land had a significant positive coefficient, the first implying growth convergence, i.e. that initially poorer households experienced faster growth in per capita income, and the second suggesting that per capita income of households with larger initial ownership of land (and those who increased their ownership of land) also grew faster. Interestingly households of a larger initial size, those who increased their size or experienced adverse income shocks or changed their primary occupation from agricultural labour to farming, experienced a decline in per capita income. Households that experienced an increase in its working members in any capacity such as agricultural and non-agricultural labour or work abroad experienced faster growth in per capita income.

The data on mobility in land ownership, occupation and poverty status show both persistence and movement. Farming and service occupations are stable with more than 70 percent (56 percent) of farmers (service households) remaining in the same occupation from one wave to the next. All other occupations lose households. Moreover, farming seems to attract around 20 percent or more of those who shift from occupations other than service. Poverty is persistent with nearly 20 to 30 percent of households remaining poor from one wave to the next. Interestingly, more households exit from poverty than move into it.

Since Hossain's paper does not derive its regression equation or its mobility patterns from an economic theory of dynamics of changes in household income, its labour force participation and occupational choice, there are no a priori expectations about what one would expect to find were the theory to be valid. As such it is not possible to derive policy implications from the findings beyond the obvious such as for example, policies that reduce the risk of morbidity and mortality seem warranted because adverse shocks from either result in income loss.

## 2.7.2 India

### 2.7.2.1 Formal and Informal Employment, Job Quality, Employment Elasticity, and Labour Absorption

The Report India's Employment Challenge: A World Bank Report (World Bank, 2008) was prepared by a large team of the Bank's South Asia Division. It drew on papers written by a team of consultants and was reviewed by a number of distinguished scholars and experts on India's labour situation. Given its impressive pedigree, to question its analysis and conclusions is not only hazardous but also risks being superficial. However, any weaknesses in its analysis and policy conclusions could be damaging, because the report carries the imprimatur of the World Bank, and also an authority derived from the scholarly reputations of the scholars who contributed its background papers and that of the reviewers. It is a very long report and it is possible that I may have misread some of the details of its analytical underpinning. These caveats have to be kept in mind in evaluating my comments.

Let me briefly summarize its contents. The very first chapter appropriately identifies the Employment Challenge as one of creating jobs and helping workers. It claims that labour market outcomes in the 1990s were better than what is commonly perceived. I argue below that the report does not quite establish this claim. Moreover the job growth since 2000, it is further claimed, was accompanied by a deceleration in real wage growth, and even a decline for some workers. This claim, though not conclusively established, has limited significance in any case. The reason is that the share of the regular wage/salary workers among India's usually employed in 2004-05 was only 9 percent (3.7 percent) of males (females) in rural areas where an overwhelming majority of three quarters of India's population and workers live, though much higher 40.6 percent (35.6 percent) in urban areas with a minority of one quarter of population and workers. Lastly, it is argued that low paying, relatively unproductive informal sector jobs dominate the labour markets. It is the case that an overwhelming majority of the employed has informal employment, but reliable and comparable data on their real earnings and productivity do not exist.

The report correctly argues that, looking ahead, India faces formidable employment challenges. But I would define this challenge as one of shifting a large share of the more than half of India's work force currently employed, even after nearly six decades of planning and industrialization, in low productivity primary activities, mainly in agriculture and in rural areas to more productive employment at a rapid enough pace to reduce poverty at an accelerating rate. The insistence in the report that on the need for reforms of labour laws regulation is appropriate for meeting the employment challenge whichever way it is defined. These laws inhibit the growth of the organized formal sector jobs and keep informal sector employers from entering the formal sector. It is not often realized that entry of new firms into the formal industrial sector and exit of less productive firms are also inhibited since laws which raise the cost of hiring and retrenching a worker, once hired. The report also advocates a set of what it calls "active labour market" policies. Most of them seem appropriate enough though one cannot be sure, since the report does not offer any rigorous evaluation of them from a social cost/benefit perspective, taking into account political-economy and administrative constraints.

Chapters 2 and 3 analyze respectively employment in the informal and formal sectors. Chapter 4 is devoted to the implications of regional variations in labour market outcomes. Chapter 5 is on the pros and cons of labour market regulations. The sixth and last chapter is on policies and programmes to increase the effectiveness of labour market policies.

I will not attempt a detailed evaluation of the strengths and weaknesses of the analysis of each of the six chapters, but instead will be selective (and necessarily idiosyncratic) in focusing on what I consider to be important. To repeat my caveats have to be kept in mind in assessing the evaluation.

First, the report does not anywhere explain what it means by the labour market in India. In the introduction I argued that a competitive labour market, national or local, in which supplies of various categories of labour are brought in line with the demands through dynamic adjustments in wages and other aspects that influence demands and supplies, does not exist in India and the rest of South Asia.

Second, the key terms of labour use (other than of course the undefined term "labour market") set out in Box 1.1 in page 4 of chapter 1, seem to have misstated the usual principal and secondary status as they are

defined by the NSS in paragraphs 2.24.1-2.24.3 of its Report No. 522. Contrary to the statement in Box 1.1 that “subsidiary status workers are those who did not have a principal activity in the preceding 365 days but spent at least some of their time in a subsidiary activity” (emphasis added), paragraph 2.24.2 of Report 522 on usual subsidiary economic status states, “A person whose usual principal status was determined on the basis of major time criteria could have pushed some economic activity for a shorter time throughout the reference year of 365 days preceding the date of survey or for a shorter period of not less than 30 days during the reference year. The status in which economic activity was pursued was the subsidiary economic activity performed by a person” (emphasis added). Thus every person has a usual principal status and an activity which could be economic or non-economic. But he or she may or may not have a usual secondary activity status. The two together are denoted as us (ps + ss). Other definitions in Box 1.1 about Current Weekly Status (cws) and Current Daily Status (c ds) are also not entirely consistent with the definitions of NSS. In particular Box 1.1 does not explicitly recognize that while us (ps + ss) and cws rates are “person rates,” the c ds rate is a “person day rate”. Using them interchangeably can lead (and has led) to misleading conclusions of trends (see Section 2.3 of Srinivasan (2010)).

Third, the claims in chapter 1 on labour force and job growth are based on absolute numbers of population and labour force in Table 1.1 of the report. These were put together by the consultants, Professors K. Sundaram and Suresh Tendulkar, who replaced the survey based age distribution with census based age distribution, which they considered more reliable, while using the age group specific rates labour for labour force participation, employment, unemployment from the National Sample Survey (NSS). This hybrid procedure of treating the survey as yielding reliable rates and ratios and replacing its estimates of absolute numbers of population and its age-sex distribution, which are deemed biased, by corresponding census based estimates is inappropriate, even though it is recommended by the NSS itself without offering any valid reason (see Srinivasan (2010, Section 3.1 on this)). The population totals estimated by the NSS in each of its round have been increasing below the census based projections for that round, in part, because, unlike the census, NSS does not cover some areas of the country. Still the reasons for the increasing divergence are not as yet fully

understood. But the presumption, and it is no more than a presumption, that the industrialization relative to census of population totals and components do not affect the ratios such as employment and labour force participation, thus validating the hybrid procedure has no tested analytical foundation. Having said this, let me hasten to add that this does not mean that the claims of chapter 1 of the report are necessarily invalid, but only that they are based on using arguably inappropriate procedures, leaving open the possibility that they could still turn out to be valid were correct procedures to be used. For this reason, I would suggest that all claims made in this chapter that are based on absolute numbers derived from the hybrid procedure, such as on employment growth and also in paragraphs 11-13 should be heavily qualified. I would also argue that the vague notions of underemployment as used by the NSS (see Srinivasan, 2010, Section 3.3.1) and its quantification do not warrant the categorical claim in paragraph 48 of chapter 1 that “underemployment, rather than unemployment, presents a more accurate picture of the employment in India.” It does not explain relative to what underemployment provides a more accurate picture.

Fourth, the findings in Section D on wages and productivity should be heavily qualified and cautiously interpreted for many reasons. First, “wages” of regular wage/salaried employees in the NSS data are in fact their imputed earnings per day and should not be confused with daily wages. NSS (2007a, p 48) notes that regular wage/salaried earners generally receive bonus and perquisites such as free accommodation, reimbursement of expenditure for medical treatment, free telephones etc. and those are evaluated at the cost to the employer or at retail prices [and not at their opportunity cost to the employee] and duly apportioned for the reference week and also included in the earnings. Undoubtedly the measurement errors of these imputed components of earnings could be substantial. In contrast, casual labourers are not only not entitled to the bonus and perquisite but also because their days on casual employment are not often continuous but in spells interrupted by other spells such as unemployment, being out of labour force etc. For these reasons, comparisons of daily average earnings of wage/salaried worker with the average wages of casual workers during spells of employment are not comparable. Yet this is what Table 1.5 does. The estimated wage at the poverty line is based on a number of assumptions listed in footnote 3 of Table 1.5. Not much else is said about the estimation procedure used by the

author Ghose who is cited as the source for the estimated wage. The conceptual as well as measurement problems with the poverty line are well known (see Srinivasan (2007), for a recent exposition). I would not attach much analytical or policy significance to the estimated wage at the poverty line.

On productivity growth estimates from Mazumdar and Sarkar (2008): it looks as if that the average labour productivity and its growth have been estimated by dividing the absolute values of real value added numbers by sectors from National Accounts Statistics (NAS) by the absolute numbers of employment of usually employed workers from the NSS derived by using hybrid procedures. These are a lot of issues both with NAS and the hybrid procedures that this section ignores.

Section E on female labour force participation, F on Schedule castes and Tribes and G on unemployment discuss some familiar issues of gender and caste biases. But the claim that underemployment data rather than unemployment data present a more accurate picture of the employment situation in India has no analytical justification.

Chapter 2 on employment in the informal sector claims that it employs about 90 percent of the India Labour Force. Before examining this claim, let me reiterate the formidable problem to which I referred earlier in Section 4.7 of defining the content of the labels formal and informal. The terms “informal sector,” “unorganized sector,” “informal economy,” “informal employment,” “non-observed economy” and others have been used, often interchangeably and confusingly in the literature. India’s NSS began collecting data on the informal employment, first only in the non-agricultural sector in its 55<sup>th</sup> round in 1999-2000 and in the entire economy in the 61<sup>st</sup> round in 2004-2005. NSS (2007b) distinguishes between “informal sector” and “informal employment.” This distinction recognizes that not all workers in what is classified as an informal sector need necessarily have informal employment and by the same token, some workers in a sector classified as formal could have informal employment (see below for definitions).

NSS (2007b) also discusses the resolutions of the 15<sup>th</sup> (January 1993) and the 16<sup>th</sup> (November-December 2003) sessions of the International Conference of Labour Statisticians (ICLS) on the definitions of and data collection on the “informal sector” and “informal employment.”

“2.23.1 As per 15<sup>th</sup> ICLS, the *informal sector* is broadly characterized as consisting of:

(a) units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned. These units typically operate at a low level of organization, with little or no division between labour and capital as factors of production and on a small scale. Labour relations – where they exist – are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees.

(b) production units of the informal sector have the characteristic features of household enterprises. The fixed and other assets used do not belong to the production units as such but to their owners. The units as such cannot engage in transactions or enter into contracts with other units, nor incur liabilities, on their behalf. The owners have to raise the necessary finance at their own risk and are personally liable, without limit, for any debts or obligations incurred in the production process. Expenditure for production is often indistinguishable from household expenditure. Similarly, capital goods such as buildings or vehicles may be used indistinguishably for business and household purposes.

Thus for statistical purposes, the *informal sector*, as per guidelines of 15<sup>th</sup> ICLS is regarded as a group of production units which, according to the definitions and classifications provided in the United Nations System of National Accounts, form part of the household sector as household enterprises or, equivalently, unincorporated enterprises owned by households.

2.23.2 According to the 17<sup>th</sup> ICLS framework, *informal employment* is identified by jobs classified by status of employment of various categories of workers engaged in different types of production units consisting of (a) formal sector enterprises, (b) informal sector enterprises, and (c) households which produce goods for their own final use and/or those employing domestic workers. The status of employment of the workers performing the jobs may be (a) own account workers, (b) employers, (c) contributing family workers, (d) employees, or (e) member of informal producers’ co-operatives. The employment in the above categories may be formal or informal depending upon the type of enterprises in which the workers are engaged or the nature of work they perform.

Accordingly, the *informal employment* comprises jobs held by:

- Own-account workers and employers who have their own informal sector enterprises;
- Contributing family workers, irrespective of whether they work in formal or informal sector enterprises;
- Employees who have informal jobs (for definition, see item (5) in paragraph 3 in Annexure II) whether employed by formal sector enterprises, informal sector enterprises, or as paid domestic workers by households;
- Members of informal producers’ cooperatives; and
- Persons engaged in the own-account production of goods exclusively for own final use by their household, such as subsistence farming or do-it-yourself construction of own dwellings.

2.23.3 In the 61<sup>st</sup> round survey, certain information for usual status workers engaged in industry groups 012, 014, 015 and divisions 02 to 99, was collected to identify informal employment. The relevant pieces of information which are useful in this respect are employment status, type of enterprise, type of job contract, availability of social security benefits, nature of job, existence of union/association, etc.”

The 55<sup>th</sup> round (1999-2000) of NSS covered informal workers in enterprises in the non-agricultural sector only. More importantly, in that round information on enterprises the workers indirectly from members of



households through Schedule 10 and directly from the informal sector enterprises, that is, all enterprises that operated on either proprietary and partnership basis through Schedule 2.

“In Schedule 2, the emphasis even more on details of the enterprises as their receipts, operating expenses, assets owned, etc., and very few items of information were exclusively on workers. Even in terms of coverage of the non-agricultural sector, it was much more extensive in Schedule 10. It may be noted in NSS 61<sup>st</sup> round (2004-05) no attempt has been made to collect data from the informal sector enterprises through Schedule 2.” (NSS, 2007b, p 1).

The fact that there were differences between the two rounds in coverage and that no information directly from the enterprises themselves were collected in the 61<sup>st</sup> and these differences could lead to serious problems of non-comparability between rounds, seem to have been ignored in Chapter 2 in its comparison of the data from the 61<sup>st</sup> round (2004-05) with these from the 55<sup>th</sup> (1999-2000).

The concept of informality used by NSS is not for a sector (or sub sector) as a whole, but only those enterprises in a sector that operate on either proprietary or partnership basis. However, Chapter 2 suggests that, “In practice, however, because an exact definition is hard to establish, the informal sector is most often defined in terms of what it is not, that is, it is not an organized sector of employment” (p 27). Footnote 50 in p. 28 proceeds to use 55<sup>th</sup> Round data on the affiliation of us (ps + ss) workers with different types of establishments and their employment size to classify them according to “formal” and informal sector workers based on the classification in the Factories Act as well as the educational attainment of workers. Thus all workers in public sector undertakings, private sector wage workers in establishments of employment size 10 or above with electricity and of size 20 or more with no electricity, and workers with higher secondary or more education were considered to be in the formal sector, without recognizing a worker in the last education based category could also be working in any one of the previous three establishment categories! Besides, this classification is about workers and not about sectors.

I found it virtually impossible to evaluate much of Chapter 2 (and also Chapter 3) because of the lack of clarity in their concept of informal/formal sectors and workers. Once again it is possible that the problem may lie in my not understanding the precise ways in which the chapters have used the data in arriving at their conclusions. I will proceed with this cautionary remark.

The claim Chapter 2 (abstract) that the informal sector employs about 90 percent of India's labour force is consistent with the data and definitions of the NSS as argued in the next paragraph. The sectors within agriculture, excluding growing of crops, market gardening horticulture and growing of crops combined with farming, called AGEGC and all non-agricultural sectors could potentially provide informal employment as per NSS definition, through enterprises that are incorporated and owned by households on either proprietary or partnership basis.

It is seen from Table 3.1 (2007b, p 34) that 42 percent of India's population were workers according to their usual status (primary and secondary) status, and 57 (14) percent of the workers were self-employed (regular wage/salaried employees) as per Table 3.2 (ibid, p 34). According to Table 3.3 (ibid, p 35), 48 percent of workers were employed in AGEGC and non-agricultural (industry and services) sectors in proprietary or partnership enterprises owned by households. Lastly Table 3.8 (ibid, p 38) shows that of the workers in AGEGC and non-agricultural sectors, about 82 percent in rural areas, 72 percent in urban areas and 78 percent in both areas together were employed in proprietary/partnership enterprises which constitute the informal sector according to the definition of NSS. Using all these data from Tables 3.1, 3.3 and 3.8, it is seen that the share of India's workforce employed in informal sectors was 91 percent ( $=\{(0.48*0.78)/0.42\}$ ) of work force or very close to the 90 percent of the labour force (which is larger than the workforce because it includes the small proportion of 1 percent of unemployed in the population) as claimed in the abstract of Chapter 2.

Chapter 2 asserts that a close association exists between organized sector employment, which is based on sectoral classification and regular wage/salary employment based on a worker based classification. A significant overlap between the two categories can be expected. Presumably the association asserted is of a close correlation of time paths of the aggregate data [absolute numbers or shares in total employment of the two categories] but the chapter does not make this clear. I have already argued that absolute numbers derived from what I called the hybrid procedure have no rationale. While the data on absolute numbers of employment in the organized sectors in the annual Economic Surveys of India's Finance Ministry came from other sources than NSS, without an estimate of the absolute numbers of total employment which the other sources do not have,

shares cannot be computed. I am not convinced that the asserted association can be used, as Chapter 2 claims it can, to project formal sector employment (share in total or absolute) from the trends in wage/salary employment (shares in total or absolute numbers estimated using the hybrid procedure). For this reason I cannot evaluate the validity of the formal/informal sector employment trends claimed in this chapter.

Section B of Chapter 2 on Quality of Jobs in the Informal sector, starts with an obvious remark about assessing the desirability of types of employment from the perspectives of the earnings they yield, their job security and availability of some form of social security (presumably retirement benefits). Its ranking of casual employment at the bottom and regular salaried employment at the top from these perspectives is more of an a priori assertion than a concrete evaluation of each of the elements of the perspective and importantly the possible trade-offs among them for different categories of workers. Section B claims that, “National Surveys also show that there is a wide distribution of income-levels within each of the major categories of employment, casual workers are of lower quality as measured by household per capita consumption.” A paper by Glinskaya and Jalan (2005) is cited in support. I presume that by income-levels they mean consumption, rather than income, levels.

Be that as it may, to the best of my knowledge, there are very few national surveys (other than some of the National Council for Applied Economic Research) that collect income data. In the Indian Context income data obtained by responses by individuals in a survey are far from what an economist would mean by income (gross or net) in a period. For this reason, the NSS has rarely collected data on incomes. Long ago NSS experimented with an integrated household schedule which collected income as well as expenditure data from each household. It was abandoned because of poor quality of data. Although the situation has changed since the experiment and there are proposals to revive the integrated schedule, until data to be collected by using the revived schedule become available and are analyzed, judgment on their reliability has to be withheld. It is possible to take into account measurement errors whose distribution can be assumed to have a mean of zero. It is more difficult to take into account possible measurement biases with distribution which have unknown means that are known to be different from zero.

Chapter 2 cites Unni (2005) as the source for its Table 2.1 on the ratio of predicted wages for regular salaried workers with those for casual labour. For at least three reasons one needs to be very cautious in interpreting the levels of and changes in the ratio across sectors (agriculture and non-agriculture) and over time (1993-1994 and 1999-2000). First, the choice between the two types of work and two sectors of employment are endogenous – thus the numerator and denominator of the ratio are endogenous variables and subject to selection bias. Second, there are possibility correlated prediction errors around both numerator and denominator of the ratio. Third, whether or not the predicted regressions had much explanatory power ignoring all other econometric issues is not stated.

Section C on informal employment in manufacturing and tertiary sector is also problematic. The frame of enterprises for the data from the census and sample sectors Annual Survey of Industries (ASI) used in this section consists mostly of the list of registered factories maintained by the Chief Inspector of factories in each state. This list is known to be seriously deficient and not current, both for the reason that it includes establishments that no longer operate in the year of survey and does not include those that just began to operate. Besides, the size cut off, namely establishments with more than 100 workers that distinguishes the Census sector from the sample sector, is not really exogenous. Besides combining data from a stratified sample of establishments in the sample sector with the data from all the establishments in the census sector in a particular industry segment has to be carefully done taking into account their sampling probability weights. Footnote 54 notes that the combined data are used for analysis of the industry structure while only the data from the census sector is used for a limited analysis of the organized sector. It is not possible to judge how some of the strong conclusions in this section would remain unaffected by an analysis that allows for the serious data issues raised above. The chapter mentions the “missing middle” in the India size distribution of firm size. Leaving aside the issue that the size distribution in ASI is of establishments and not of firms, whether the “missing middle” in Indian data is unusually large is not established. In another context, I argued that the establishment data from ASI used on the organized sector in this section does not cover those with less than 10 workers:

Directory of Manufacturing Establishments...provides data on those employing 6 to 9 workers. However, the Quinquennial Economic Survey and its annual follow-up surveys cover all establishments, subdivided into own

account manufacturing establishments (OAME) with no hired and paid workers on a fairly regular basis and others which do hire paid workers. The latter are subdivided into Directory Establishments that hire 6 or more workers daily on a regular basis and Non-Directory Establishments which hire 1 to 5 workers.

Mazumdar and Sarkar (2008, Table 9A.1) provide data on the number of workers in the entire spectrum of establishments, those covered by the Economic Census, Directory of Manufacturing Establishments (DME) and the Annual Survey of Industries (ASI). These include own account manufacturing establishments (OAME) that do not hire any paid workers on a fairly regular basis and those who hire one or more workers on a regular basis. In 1989-90...the number of workers employed in all establishments was 39.8 million and 17 million, if we exclude the unpaid workers and owners in OAME according to Mazumdar and Sarkar. The World Bank data covered only 12.6 million covered by ASI and DME out of the 39.8 million. In effect, the World Bank data...exclude 4.4 million establishments that hired and employed 1 to 5 workers and 17 million that did not hire any paid workers.

In a March 2009 presentation ([www.stanford.edu/~abollard/docs/India%20Size%20Distribution%20Summary%20March%202009.pdf](http://www.stanford.edu/~abollard/docs/India%20Size%20Distribution%20Summary%20March%202009.pdf)), Albert Bollard, a graduate student at Stanford, who is working on the Size Distribution of Indian Manufacturing, provided a comparative analysis of India in 1990 and USA in 1992 of the distribution of paid employment that includes the size class 1-4. It turns out that India has a substantially larger percentage, around 35 percent, of establishments in the size category 1-19, as compared to only around 5 percent in the US and substantially smaller percentage, 30 percent as compared to 60 percent in the US in the category 500 plus. Surprisingly, the “middle” if used, in the sense of category 20-499 is not missing in that both India and the US have the same percentage, 35 percent, in this size category.

Finally, paragraph 24 of this section on welfare consequences of dualism and its persistence, valid or not, do not directly follow from what is presented in the rest of the section.

Section D on labour absorption in the agricultural and rural sectors argues that in the medium term the role of agriculture will remain critical both because of its large share in total and informal employment and because agricultural growth will create a demand for agricultural and non-agricultural goods. While this is true, I would have explored further the deeper structural problems associated with a very slow change in the large number (as well as share of total labour force) that work in agriculture. Section D does not attempt such an analysis. For reasons already explained I will ignore the time trends reported in Table 2.3.

Chapter 3 on Employment in the Formal Sector notes that the growth of employment in the organized sector (which is identified with the formal sector in Chapter 2) estimated from the data in the annual Economic Surveys of the Ministry of Finance, has been disappointing in spite of a fairly healthy rate of growth of output. It cites low employment elasticity with respect to growth of output and persistent “dualism” (meaning concentration of employment at two ends of the average labour productivity spectrum, with the middle being relatively thin) as key reasons. If by “reasons” it meant “causes,” neither claim has any meaning. As I point out in Srinivasan (2010) elasticity of employment defined as the elasticity of one endogenous variable, namely, growth of employment with respect to another endogenous variable, namely growth of output, is not a deep

structured behavioural parameter in sense Robert Lucas meant it in the well known “Lucas Critique” of macro econometric models. Its estimate is unlikely to be stable, because of its dependence on economic policy regimes in place at different points of time. The volatility of the computed elasticity shown in Table 3.1 is consistent with this presumption. Dualism in the sense used by the Bank’s report is also an endogenous outcome of many factors. It cannot by itself be viewed as a “cause” of any phenomenon.

Section B of Chapter 3 analyses the determinants of the employment elasticity in manufacturing drawing on a decomposition or accounting model of Mazumdar (2005). With output defined as value added at current prices, workers and employers are assumed in the model to face a trade-off between employment growth and real wage growth along a set of feasible combinations of the two, given the growth rate of the wage bill. Workers deflate their nominal wages by a (domestic) consumer price index to arrive at their real content, and the employers similarly deflate their residual income from nominal value added by a (domestic) producer price index. In the resulting bargaining equilibrium, a relationship between trends in employment elasticity and the (presumably exogenous) rate of growth of wage bill relative to growth of value added both in nominal terms and the growth of producer share of wages in value added, and of producer prices relative to consumer prices or growth in what is termed as the Domestic Real Exchange Rate (DRER). It is argued that the three variables in the equilibrium relationship are influenced by a different set of factors. The observed values of the three during five periods within 1975-2005 are shown in Table 3.2.

The implicit theory of market structure in manufacturing that leads to the postulated bargaining relationship in equilibrium is obscure. Importantly, difference in import and export controls as well as enforcement of labour laws and regulations, the monopolistic and restrictive trade practices legislation across the five periods are not explicit in it, but presumably they are implicit, through their effects in particular on producer and consumer price index. Although the effects of macroeconomic policies: fiscal, monetary and the exchange rate of the rupee on producer and consumer prices, are discussed the fact that international competitiveness of Indian manufacturing depends not only on the exchange rate of the rupee, but also total factor productivity of the manufacturing sectors, as well as labour and small scale industry reservation laws and

other regulations is not mentioned. Besides the rate of pass through to domestic prices of changes in terms of foreign trade was not one to one in India. In any case, the trends in nominal exchange rates depend also on trends on capital flows and interventions by the Reserve Bank. All policies changed differentially across the periods.

Moreover, the unorganized component of manufacturing is not negligible – it is doubtful whether the bargaining process postulated is relevant for non-contractual labour hiring in the unorganized sector. Also, as is well known, the so called Whole Sale Price Index in India is not really a producer price index nor is there is no single all India consumer price index. The available indices (until the very recent changes) are deficient, particularly as signals of inflation (see Srinivasan (2008a, b) on this).

Even without the use of the analytically weak concept of employment elasticity of the Mazumdar model on elasticity in this chapter, some of the policy implications it draws from them can be independently justified on broader grounds. I would stress the need for fiscal consolidation away from what would most analysts would agree an unsustainable paths of fiscal deficits and public debt/GDP ratios, and the need for a coherent, consistent and dynamic macroeconomic framework, for choosing of fiscal, monetary exchange rate policies, and in particular interventions in the foreign exchange markets, and the associated extent of sterilization of their possible effects on domestic inflation. Parenthetically, I would add that as the debate over global imbalances and accusations of currency manipulation by China in particular reveals, they are not founded on an agreed and coherent and dynamic framework either!

Since in my view the estimated employment elasticity is not a stable behavioural parameter, its observed volatility is to be expected. To read a cyclical pattern into the volatility and to infer the need for “managing” the wage-employment trade-off, as paragraph 7 does, has little or no analytical rationale. Section C on a disaggregated analysis of how trade liberalization in the 1990s has affected employment growth in manufacturing, again uses the Mazumdar model on the wage-employment trade off and DRER in employment elasticity, now disaggregated into High/Medium/Technology industries exposed to exports and imports, and purely domestic ones with Medium/Low technology. The periods 1986-1995 and 1996-2005 are compared in

Table 3.5. There is the arguable issue of when trade liberalization actually started. Different aspects of trade such as import licensing, tariffs and quantitative restrictions (QRs) (for example, (QRs) were abandoned only in 2001 after an adverse decision against its use by the Dispute Settlement Body of the WTO), canalization of trade particularly in food grains and vegetable oils to public sector monopolies (which still continues), real effective exchange rates were liberalized at different time points, rates and extents. For example, applied MFN tariffs were reduced much farther than bound rates set in the Uruguay Round Agreement of 1994, in effect leaving the government plenty of room to raise applied rate to the higher bound rates at will and has done so often during 1995-2005.

For reasons mentioned earlier, I attach no policy relevance whatsoever to the differential changes in employment elasticity depicted in Table 3.5 across the two periods and to assertions about “the tilt in the employment-wage trade off towards wage growth in the post-reform period to have been strong in the exposed to the trade.”

The fact that post liberalization and reforms competition in the domestic markets for manufactured products from domestic and foreign producers (i.e. import competition) and the competitive pressure on exporters in foreign markets has substantially increased is well established. Also some of the most successful firms in the competitive period (e.g. Reliance Group) did not even exist prior to reforms. The same is true in many respects of the two most globally successful IT firms Infosys and Wipro. Also acquisition of foreign firms by Indian firms and the emergence of India based multinationals are also a post-reform phenomena. India’s largest single trade partner is no longer the United States but China. A forward looking framework is essential for analyzing the effects of trade liberalization, multilateral or preferential. Kehoe (Kehoe et al, 2005) shows how projections based on Applied General Equilibrium models of Mexico’s trade flows post-NAFTA that were made prior to its coming to force, failed to predict that significant trade would come about as it in fact did after NAFTA came into force. Even those who attach significance to the employment elasticity framework of analysis, would have to concede that it is a backward looking approach (as is any accounting model, such as Mazumdar’s) based on past data.



### 2.7.2.2 Dualism, Outsourcing, and Migration

Section D is devoted to “dualism” in the manufacturing sector. I have already drawn attention to the fact that the data used excludes very small establishments<sup>3</sup> employing fewer than six workers. In fact, Table 3.8 shows that these accounted for 10 percent of employment and family operated firms accounted for around another 50 percent and both these groups were not organized. At least one comparison in a Stanford doctoral dissertation (Bollard, 2009), the “missing middle” of 35 percent of establishments employing between 20 and 499 workers is the same in India as in the United States. I have also questioned the meaningfulness of the average labour productivity comparisons across sectors and size class of employment. This section is primarily one of presentation of employment data across time periods, size class of employment in different industrial sectors and the percent of contract labour by employment size class. No significant policy implications are drawn from the data.

Section E has the intriguing title “Is outsourcing mitigating dualism?” Outsourcing by a firm is conventionally understood as shifting some of the services (or products produced) previously done within the firm for its own use to producers outside. Thus the firm decides to “buy” rather than “make” such products or services when it decides to outsource. It is no surprise that in Table 3.9 except in the Auto industry, the largest single share (except in the non-descript category “other” when it is the second largest) of outsourcing occurs in the smallest size class. After all establishments producing a final product, if they are small will find it more cost-effective to buy most of their intermediate products from others than produce them in house. Again it is no surprise there are no firms in the smallest size class in the auto-industry or that single largest share of outsourcing occurs in the next highest employment class of 10-99 workers. The inference that firms have a strong incentive not to expand the size group to avoid becoming registered cannot be viewed as strongly supported by Table 3.9 as the only possible inference since no theory of outsourcing is offered. Again data

---

<sup>3</sup> This chapter inappropriately uses the word “firms” when the underlying data relate to establishment as defined in Indian Factories Act. A firm on the other hand a legal (basically Company Law) concept with no necessary implication as to the range of products it produces and their sectoral affiliations or to the number of establishments in which it produces them.

presented in Table 3.10 on the proportion and distribution of firms sub-contracting in by Location and Industry group in 2000-01 are interesting but cannot be interpreted meaningfully without some underlying theory. The bold assertion in paragraph 28 that, “sub-contractors in Indian manufacturing are yet to graduate from their “dependent” status and become independent producers that seek out the mother firms – a development that underlies the success of the Japanese model of subcontracting” will remain just an assertion and not a valid finding, if the only support for it are Tables 3.9 and 3.10. I found the more narrowly but precisely focus study such as that of John Sutton (2005) comparing China’s and India’s establishments producing auto components for the global auto industry with their counterparts abroad is much more illuminating. The wide ranging discussion in this chapter of issues lacks a coherent analytical framework for studying outsourcing of which some are available in the literature since is not a new phenomenon.

Section F on persistence of dualism in Indian Industrial Structure and the possible reasons for it such as labour, capital and product marked segmentation, and why it persists in spite of significant relaxation, if not outright abolition, of small scale industry reservation is interesting. However, it does not speculate on which of the myriad factors that could have contributed to the persistence was quantitatively more significant. Box 3.2 on public sector wage setting (it needs to be updated since the Sixth Pay Commission’s recommendation has already been mostly implemented) does not seem to be connected to anything else in Section F. Its reference in paragraph 33 in connection with polarization of the industrial structure seems to be an error.

### **2.7.2.3 Tertiary Sector Employment**

The last section of chapter 3 on the Tertiary Sector draws on data from EUS of the 55<sup>th</sup> round of NSS (1999-2000) and earlier rounds (43<sup>rd</sup> and 50<sup>th</sup>). Apart from its data on the three aggregates primary, secondary and tertiary, NSS also provides employment data on a standard Industrial Structure of National Accounts. The latter are presented in Table 3.11. The two are obviously overlapping. Data from the 61<sup>st</sup> (2004-2005) and 62<sup>nd</sup> (2005-06) are also available, but not used in this section. I have already questioned the basis of the computation of growth rate of employment and the lack of analytical foundation for the elasticity of employment. This

section attempts a decomposition of employment in the tertiary sectors into 12 categories consisting of rural/urban, formal/informal and the three employment statuses (casual, regular wage/salary and self-employed). As in chapter 2 the formal sector is defined to include all public and semi-public establishments, and in the private sector, all establishments employing more than 10 workers are deemed formal. For the self-employed, those with lower secondary education or less are considered to be in the informal sector. Each of the three employment status sub-categories is heterogeneous within themselves – this makes it difficult to be definitive about the implications of the composition of employment across the four broad categories rural/urban/formal/informal.

In the discussion of employment composition in the 38<sup>th</sup>, 50<sup>th</sup> and 61<sup>st</sup> round according to the 5 quintiles of the distribution consumer household expenditure per capita (it is not clear whether the distribution is that of persons or households) uses terms “job creation,” “new jobs,” “push and pull factors.” I could not understand how from the static picture of employment composition across quintiles in each of the 3 rounds, the dynamics of movement and features of job creation and destruction as well as whether labour is being pulled or pushed into the tertiary sector are being inferred. It is not stated whether the estimated kernel densities of per capita consumer expenditure for each of the three rounds or by major sub-groups were compared using formal statistical tests such as the Kolmogorov-Smirnoff test or others to check whether they differed significantly. If they did not, the speculations about shifts across rounds in employment composition of different quintiles or sub-groups need to be qualified.

In sum, although the wide-ranging discussions of relevant issues in this chapter is impressive, I am troubled by the lack of a coherent analytical framework other than the analytically weak employment elasticity as well as the absence of a forward looking approach.

#### **2.7.2.4 Interstate and Regional Differences in Employment Outcomes**

##### **2.7.2.4.1 Federalism in India’s Constitution**

Chapter 4 is on the implications of differences in labour “market” outcomes across India’s states and regions.

There are large differences among states in their population sizes and growth rates, and religions as well as caste compositions. Some states consisted of areas that prior to independence in 1947 were predominantly under the control of the British (so called British India) and others were a mixture to a varying extent of British India and areas under the control of princes, maharajahs and nawabs ( the so called princely states) with different administrative systems. The legacy of the zamindari (in Eastern States) or permanent land revenue settlement was important and in temporarily settled areas. The legacy issue was not as serious. Inevitable conflicts arising from the reconstitution of states on a purely linguistic basis, some of which are festering even now; and the emergence of border states following post-independence conflicts with Pakistan (Jammu and Kashmir) with China (northeastern states) are relevant. So is the incidence of violent domestic dissidence (e.g. Maoist movements) originating from appropriation of land and mineral wealth in tribal areas by non-tribals and in general, discrimination against the scheduled tribes (and castes). Finally the evolution of polity, with the erosion of the dominance of the Congress Party ruling in the centre and states in the early years followed by unstable coalitions in many states later to more stable regional party rule in some major states, and finally to the emergence at the centre of coalitions of regional and national parties is very important.

India’s constitution, adopted in 1950 after an extensive and informative debate in the Constituent Assembly, included features mainly from the Government of India Act (1935) of the colonial era and also the US constitution. It created a Union of States (a federation) but with strong unitary or centralizing features. The then pressing needs to heal the trauma of partition, rehabilitation of deterioration of transport infrastructure and integration of former princely states into the Indian Union, and the fear originating in the events leading to partition that potential “fissiparous” tendencies and movements would tear the newly independent country apart called for a strong central government backed up by legislative and administrative powers and resources similar to those in unitary states.

The constitution set up a federalist fiscal system with the tax bases and expenditure responsibilities divided between the centre and the states, with the resulting vertical imbalances being in part addressed by the

constitutionally mandated Finance Commission making recommendations every five years or so to the central government on the sharing of central revenues from designated taxes with the states and other grants from the centre to the states. A planning commission was also set up in 1950 through the fiat of a resolution of the central cabinet (i.e. the executive branch of the centre) to draw up five year and annual plans for economic development for the country as a whole and to approve similar plans draw up by the state governments. The Planning Commission also recommended transfer from the centre to states to support their five year plans. Lastly, the central ministries also made transfers mostly in support of centrally sponsored schemes in individual states which had significant spill over effects across states. Over time the features of fiscal federalism became complex. Above all, while the members of the Finance and Planning Commissions were meant to be non-political experts, over time both bodies became politicized to varying degrees (see Singh and Srinivasan, 2006).

#### **2.7.2.4.2 Differences in Labour Market Outcomes**

As thorough analysis of the differing outcomes, be they of the labour “market” or of economic growth, poverty reduction and many others, and their implications for the future would need an integrated political economy framework that would incorporate the differences described above as well as the exogenous politico-economic-social developments and schools. Not only does such a framework does not exist in the literature nor is it easy to put together one. The chapter naturally focuses on a narrower set of issues relating to outcomes in the labour market. Its “motivation is two-fold: first, by being able to examine the variations in labour market outcomes across states and NSS regions, and the changes in them over a period of time, this analysis can help shed light on the determinants of the labour market outcomes in India in general; second, understanding regional variations is important for its own sake because it brings into focus regional dimensions of employment issues” (p 70). Both motivations make very good sense. However, the success in the chapter being able to identify the determinants of outcomes and changes in them as well as to understand regional variations depend in large part on its framework of analysis, which leaves much to be desired as I argue below.

Section B states that the stylized facts the outcomes and trends differ across regions in four respects. First, the states could be clustered into four groups with respect to the differences: (i) five northeastern states,

mostly small with the exception of Assam, remote from the rest of India and with active conflicts (ethnic, religious and linguistic) and movements; (ii) the giant Northern States of Bihar and Uttar Pradesh; (iii) coastal regions with two large states (Kerala and Orissa) and small former Portuguese and French colonies, all three with low employment rates and (iv) three Southern and two Western states, all large, with higher employment rates. Unsurprisingly with relatively low unemployment rates, the outcomes on participation and employment rates are highly correlated.

Second, variations in female participation and employment rates are markedly higher than those for males.

Third, regional differences are persistent, a finding consistent with the high autocorrelation in the time trend analysis of all labour utilization indicators in Srinivasan (2010). In contrast to employment indicators, although their levels of wages differ significantly across regions, there appears to be convergence of real wages over time in the sense, “the regions that had the lowest real wage rates in 1983, had higher growth rates in the next 17 years.” However, Table 4.2 on the negative coefficient of real wages in 1983 in explaining growth of real wages subsequently, is not about regional convergence, but about convergence within categories of employment in rural and urban areas. Besides, the “industry” phrase in the titles of its columns such as for example “Urban Casual Industry,” “Rural Salaried Industry,” makes no sense whatsoever! Also Figure 4.1 plots log of real household per capital expenditure an endogenous variables against log real earnings per week, which is also endogenous. Besides, it ignores the facts that labour earnings are not relevant for the self-employed and the possibility that the deflators used for obtaining real magnitudes from their nominal values could be deficient. Nothing of structural significance should be read from the close relationship seen in the plot.

It could be argued that the two contrasting trends within each region noted in paragraph 52 are to be expected. Casual wage labourers, whether they work in rural or urban areas are basically unskilled and also relatively more mobile in search of work even over long distances (e.g. Bihari agricultural labour in Punjab, construction workers from Southern states working in construction sites in Northern states). It would not be an undue stretch to view them as basically a large and relatively homogenous pool if not in the country as a whole

but at least within districts and states. If this is correct, it is no surprise that although there may be differences in real wage levels for other reasons, time trends are similar between rural and urban areas. On the other hand, for the category of salaried (and regular wage) workers, skills are likely to be more important and these workers are very heterogeneous in their skills, and as the paragraph rightly notes, the large share of the public sector which is a wage-setter rather than a wage-taker in their employment in urban areas matter. (Perhaps an updated Box 3.2 from chapter 3 on public sector wage-setting should be brought here). Skill premia rose as would be expected with reforms and opening to the world markets for goods and services but without significant inflow of skilled people from abroad with the expected consequence that the real wages of salaried/regular wage workers grew faster than that of the casual labourers in urban areas.

#### **2.7.2.4.3 Migration and Urbanization**

Section C is devoted to the facts of low migration and urbanization rates in India (but also South Asia more generally). My colleague Mark Rosenzweig has written on low migration rates in India – reference to his econometric analysis would be useful in this section. The literature makes appropriate distinctions between short term back and forth migration and longer terms one way migration, among inter-district, inter-state, and international migration; between metropolitan cities and the rest of the country, and analyzes their economic and non-economic determinants. Although this section does not mention it, the economic and non-economic consequences of the migrants being largely males with their spouses staying behind on those left behind, both during the stay away from home of the migrants and also after they return home, have been noted in the literature. It is also the case that in some states of India residents have attacked migrants from other states in their midst, reminiscent of anti-immigrant movements in Western Europe. This section could benefit from a broader perspective on migration than just the implication of real wage trends.

The section does not mention the possibility that declining population and fertility rates and relatively high ratios of males to females in some states could have implications for migration. There are largely anecdotal accounts of an emergent interstate “market” for brides with demands arising from states with higher male/female ratios and supplies from states with lower male/female ratios. Interestingly the significant

linguistic, cultural and dietary differences across states that have historically deterred inter-state migration seem to have been less of a deterrent in the migration associated with the interstate market for brides.

Low rates of urbanization and apparent slow down (relatively to projections based on 1981 census data) are discussed. Paragraph 57 refers to these projections but without mentioning the possibility the projections in 1981 might not have been sufficiently forward looking and have failed to anticipate the slow down in population growth etc. The section's narrow focus on rural-urban wage gap (does not mention whether the gap had significant explanatory power for migration) does not mention other potential factors such as rising costs of housing (in part driven by the absence of competitive land markets and costs of legal acquisition of land). In metropolitan areas the prevailing ratio of legal "white money" to illegal "black money" in real estate transactions could deter those who wish to avoid the use of black money. It does mention the poor quality and limited availability of urban infrastructure and services. Paragraph 58 makes an intriguing reference to the underdeveloped peri-urban areas to which population seems to be shifting from congested metropolitan cities may be too small to take advantage of agglomeration externalities. Surprisingly, the report, particularly in its discussion of the effect of trade on growth of manufacturing employment, does not take note of the exploding recent literature on economic geography focusing on agglomeration economies or of form level analysis of the incentives and deterrents on participation in foreign trade (it so happens that only a very small share of firms participate in foreign trade). With Vani Archana as my co-author I have begun exploring trade participation of Indian firms (Srinivasan and Archana (2010a,b)).

#### **2.7.2.4.4 Driving Forces Behind Regional Differences**

I found it very difficult to understand the long discussion on the driving forces behind regional differences in labour market outcomes. In paragraph 59, two proximate factors are said to be playing key roles, namely differences in Gross State Domestic Product<sup>4</sup> (GSDP) and its rate of growth across states on the demand

---

<sup>4</sup> There are serious and well known measurement problems with GSDP and the GSD deflators.



for labour and on the supply side variations in female participation rates. This led me to expect a discussion based on traditional labour demand-labour supply cross for each state and point of time (presumably from a aggregation of the supply-demand decisions of individual suppliers and demands based on some form of inter-temporal optimization by each). This is not what I found.

It is asserted that economic growth is almost entirely driven by labour productivity growth (paragraph 61). But the discussion following it sounds almost like an assertion of proposition arithmetic rather than economics. From the identity that output (or GSDP) is a product of employment and output per employee (i.e. average productivity) it follows that the rate of growth of GSDP is the sum of the growth of employment and of average productivity. It has no economic content being an identity. A purely backward looking accounting exercise can be used to express the contribution of growth each of the two components and their interaction to their sum, namely GDP growth. This by definition is not a causal model i.e. one which analyzes the causal factors behind the growth of each, which can be used in a forward looking way assuming no change ( or some postulated change) in the underlying structure.

The discussion in paragraphs 62-65 on the relation between average productivity growth and GSDP growth also seems to me to have very little economic content. For example, in a conventional model of labour supply-labour demand equilibrium that is brought about through wage movements, the equilibrium wage equals the (value) marginal productivity of labour on the supply side and (value) marginal cost of labour– the equilibrium wage has no information on average labour productivities or labour costs. I do not know what to make of the assertion in paragraph 63 that, “the relationship between labour productivity and employment growth is largely the result of elasticity of employment (Box 4.1.)”. Box 4.1, if anything, mentions many reasons why an increase in average labour productivity need not imply a decline in employment, while it does mention price elasticity of demand for goods, fortunately it makes no mention of the analytically meaningless concept of employment elasticity. Paragraph 64 and Box 4.2 do mention the need for carefully dealing with the issues of endogeneity in the relating GSDP levels to employment levels – presumably the studies cited in paragraphs 65 and 66 have followed the sage advice of Box 4.2. The discussion in the last few pages of the

chapter on female participation rates is a step forward in framing participation as an endogenous decision and focusing on the likely determinants of the decision. But it does not articulate a full model embedding the participation decision in framework for analyzing many interdependent decisions of members of a household including labour force participation of each member.

Finally, chapter 4 does not mention that Indian policy makers, unlike their Chinese counterparts, have not used the larger regional diversities in India by using states as laboratories for experimenting with alternative policies. By not fully taking into account that significant regional (i.e. inter-state) differences, not only in labour utilization, gender biases, etc. but also in all aspects of economic performance that have existed for a long time but also importantly that they are reflections of cultural and institutional differences dating back to the colonial era and earlier, and focusing mostly in the post 1980s period, the chapter probably missed some crucial causal factors in explaining not only the differences, but also their dynamics.

### **2.7.2.5 Labour Laws and Regulations**

Chapter 5 asks whether Indian labour regulations are helping or hurting workers. It is useful to distinguish between regulations or more generally public policy interventions, by their rationale. One set of interventions is intended to correct what are deemed “market failures” in economies in which market transactions primarily determine resource allocations at a point and overtime and the other set of interventions are of a redistributive nature intended to shift market outcomes towards specific socio-economic-political subgroups in the society. I argued earlier that in India resource allocations in general and with respect to labour in particular are not largely determined by market transactions in part because the public sector which produces and distributes goods and services that are mostly produced and sold in markets in other economies plays a large role. Thus rationales behind Indian interventions, laws and regulations cannot be limited in any clear fashion to their market failure correction and redistribution objectives as in developed economies. What is evident of course that not only both objectives were present in India, but importantly the gap between their intended rationale and their actual realization (as well as the realization of unintentional consequences), due to

their avoidance and evidence as well as ineffective, not to mention corrupt enforcement are believed to be very large.

The largely regressive redistributive consequences of Indian Labour laws and their deleterious consequences on worker productivity and output growth have long been known. It was expressed clearly and eloquently nearly 50 years ago by no less a person than the late professor P.C. Mahalanobis, the architect of India's Planned Development Strategy and the author of the Second Five Year Plan (1956-61).

...certain welfare measures tend to be implemented in India ahead of economic growth, for example, in labour laws which are probably the most highly protective of labour interest in the narrowest sense, in the whole world. There is practically no link between output and remuneration; hiring and firing are highly restricted. It is extremely difficult to maintain an economic level of productivity or improve productivity... the present form of protection of organized labour, which constitutes, including their families, about 5% or 6% of the whole population, would operate as an obstacle to growth and would also increase inequalities...it would seem better to try to attain the highest possible efficiency of labour and increasing productivity, and use the additional value obtained in this way to create more employment rather than lower the industrial efficiency by slack or restrictive practices through overstaffing (Mahalanobis, 1961).

It is trite to say that an omniscient, omnipotent and benevolent planner and a system complete set of competitive contingent markets in which agents with rational expectations aware of all the future contingencies that could arise with joint probability distribution of their arising could achieve any socially efficient resource allocations and outcomes in the absence of scale economies and externalities and lump sum wealth or income transfers across agents would make them socially equitable as well. Paragraph 1 emphasizes well-functioning labour markets as the key to achieving equitable and presumably efficient growth in India. But if by well-functioning markets the authors meant what is said above, one could by the same token say that well-conceived regulations (the analogues of those that a perfect planner again in the above sense) would achieve equitable and efficient growth. The basic point is that in the Indian context, markets that exist and the regulators operate in a context that is far from what economic theory would characterize as the "first best" – markets are segmented and very few future markets exist, scale economies and externalities are significant, and the market structure is not that of an idealized, atomistic, competitive market, and agents operating in them are unlikely to be sufficiently forward looking. Regulators may have their own private interests and not just maximization social welfare in mind when they design and selectively explore their regulations. Again economic theory has shown that the outcomes of regulations and policies in such a situation need not be the ones that they would have had

in the “first best” environment and what is worse, the actual outcomes and their deviations from equity and efficiency would be context specific so that no predictions can be made purely from theoretical considerations alone. There is no alternative to context-specific empirical analysis based on a general equilibrium model. Although the chapter does not offer such an empirical model or a set of empirical models for India to analyze labour regulations and their effects, the discussion hews to the context closely and is very informative.

Section B covers well the range of central and state laws governing various aspects of labour use going back to the 19<sup>th</sup> century. It could have noted and does not, that in India, the legal doctrine of “desuetude” by which a law is rendered obsolete because of disuse is not in practice so that once a law enacted remains valid as long as it is not repealed.

I have not checked whether English textile manufacturers perceived the then nascent Indian textile industry (not to be confused by the globally dominant Indian cotton textile industry of the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, which was wiped by the cheaper machine made textiles of the industrial revolution by the late 19<sup>th</sup> century) as a competitive threat as suggested in paragraph 9 on the origins of Indian Factories Act. If they did, and given that the late nineteenth century Britain was a free trader, getting protective tariffs against textile imports from Britain’s India colony would be virtually impossible, it would not surprise me that the British textile manufacturer anticipated the contemporary phenomenon of developed country Unions and Manufacturers pushing “Core Labour Standards” into the WTO! The report could have noted this parallel in this paragraph itself or in paragraph 30 on “Core Labour Standards.” The issue is not the standards per se, or the ratification or not of ILO conventions on them, but one of making trade liberalization policy conditional on enforcing them in multilateral agreements in the WTO. This is happening already in preferential trade agreements between industrialized and developing countries. The insistence of developing countries, including China and India, has kept core labour standards out of the WTO and firmly in the ILO since the Singapore Ministerial Meeting of 1996. But the developed countries are still pushing for their inclusion.

Section B rightly singles out the draconian Industrial Disputes Act (IDA) of 1947 and its subsequent amendments as the most important (I would have added most consequential in its deleterious consequences)

among the many labour laws. In the 1970s, under Mrs. Indira Gandhi's populist regime, amendments were passed to make the Act even more draconian and deleterious.

The discussion of labour unions, unless I missed it, does not note that in India each major political party has its own affiliated trade union. This politicization along, with the provisions of the Trade Unions Act that it needs only seven or more workers, not necessarily working for the same employer, can apply for registration, has led inter-union rivalries as well as intransigence in collective bargaining. This section rightly notes in Box 5.2 the fact, noted long ago by Professor Mahalanobis, that only 9 percent of Indian workers are members of trade unions whose interest the labour laws protect. For the much larger class of casual labourers, and many of the workers in the unorganized sector who are not unionized, the protections and benefits of labour laws including those relating to working conditions, social security, etc. are largely irrelevant.

The number of workers employed in Special Economic Zones (SEZ) in 2002-03 presented in Box 5.3 shows that the 8 zones employ only 95,000 workers in India as compared to 30 million in the 15 zones in China. Indian SEZ Act was introduced in emulation of China's success, but without an understanding of the importance of their features that led to China's success, such as exploitation of scale economies, provision of efficient telecommunications, transport and other infrastructure, absence of on foreign ownership and exemption from labour laws. India's small zones do not have the scale of China's, and do not enjoy the absence of the other constraints, such as on infrastructure and labour laws as the Chinese ones do. Imitation may be the best form of flattery, but it is unlikely that any Chinese would consider Indian SEZs as a flattering imitation of theirs!

Section C on Assessing India's Labour Laws identifies three main issues, all of them well known and discussed widely in India. First there are too many laws on the books, and often mutually inconsistent. Partly because of the absence of the doctrine of desuetude, laws enacted for addressing a then critical problem long ago continue to be in force long after the problem had ceased to be relevant. Also what matters more, than the laws themselves are the administratively determined rules and regulations for the implementation of their provisions. These are selectively enforced and are sources for corruption. Second, the lengthy and complex

legal procedures for retrenchment of workers and the associated severance payments required, etc. raise the cost of retrenchment and also indirectly hiring costs, since firms would like to ensure that they recruit only those whom they would want to keep them forever, since retrenchment is costly. Although it is not mentioned in this section, relatively high costs of hiring and retrenchments act like fixed costs: they are deterrents to entry of new firms, and to the exit of firms. Clearly firms in operation at a point in time are by definition those who entered and have not exited. The sample firms in actual operation at any point in time do not include firms that would have but did not, and includes firms that would have exited but did not. The reason is that high exit costs due to severance payments to retrenched workers they would have to incur were they to enter and then exit because of unanticipated developments could have deterred some from entering. By the same token, those who entered but would have exited because of changes in their future market prospects but could not due to high severance costs continue to operate. For both these reasons, the sample of firms in operations at any point of time is a sample that has a potential selection bias, and as such, the effects of labour laws from studies based on such samples suffer from selection bias of unknown magnitude. Of course, if corrections for potential selection biases are to be part of the analysis, the entry and exit decisions have to be modeled. But most studies do not.

The points in paragraphs 35 and 36 on the dispute settlement process as specified in IDA are well taken. I would add that there is no finality to the process, since the parties to a dispute do not forego their rights of appeal up to India's Supreme Court at any stage reached in IDA's process. The rest of Section C makes valid points on the other deleterious consequences of IDA.

It is not easy to evaluate Section D on the impact of key labour regulations in India for the reason that they are based on responses of firms in operation, which as I argued above suffer from selection bias of unknown magnitudes. The studies that exploit the fact of the variation in severity across States of labour laws are also problematic for at least two reasons. They essentially estimate a reduced form equation of growth of output (or similar dependent variable) in each state on a number of explanatory variables, including importantly those that proxy for the severity of their labour laws, which are potentially endogenous. What is needed is the

estimation structural model behind the reduced form that among other things, specifies the mechanisms through which states choose their laws, as well as the way the laws enacted and enforced and thereby influence relevant outcome variables. I would treat the findings in Section D as no more than suggestive until more satisfactory econometric analyses confirm or refute them.

The final Section E of this chapter makes many useful suggestions on the way forward. The paragraph on four priority areas for labour law reforms seems appropriate, except that one could argue that the same four priorities would probably be appropriate for legal reforms in general. For example, rationalizing, simplifying and consolidating labour laws, as paragraph 65 recommends are more easily said than done. As has been the experience with Indian land consolidation laws for reducing fragmentation of land holdings, there usually are well defined special interests that would resist consolidation of laws because they benefit from the complexities, conflicts and contradictions across laws.

The recommendation in the section on modernizing the IDA also runs into the same problem, namely, that archaic laws happen to benefit some vested interest that would resist their modernization. Put another way, it could be argued that even though the benefits from reform of labour law (or any other laws) seem potentially large quantitatively, the costs of bringing them about could be as large as well. The quantification of costs is far more difficult because they arise primarily from political-economy factors. I am afraid this chapter does not go into them, perhaps that for a report from the World Bank, it would not be appropriate to do so. But I am afraid they could be the major bottleneck in complementing the proposals in Section E. There is a growing literature on the political economy of development of India. An early contribution was by Bardhan first in (1984) and a later expanded edition with an Epilogue on the Indian Economic Reform Process. Bardhan identifies three vested interests consisting of large landlords, large businesses and the bureaucracy and their interaction as driving forces. More recent contribution that characterize India as a failed development state (a close kin to the characterization of Gunnar Myrdal (1968) as a ‘soft’ state) driven by political dynamics of interest group competition. The contributors to this strand include Ajay Chhibber and Ronald Herring (2009, 2001). Another state-centric strand views India as a “flailing state” including a series of contributors on failures of public

service delivery. A major contributor is Lant Pritchett. An important strand focuses on persistent failure of democracy to deliver what the voting public expects from it. There are many contributors to this and related strands, each with his or her own perspective and nuance. They include Chandra (2004), Chhibber (1999), Chibber and Kollman (1998), Joshi and Little (1994), Kapur and Mehta (2005), Kohli (1990), Mehta (2003), Nilekani (2009), Pritchett (2009), and Varshney (2007).

Jessica Wallack and I are currently engaged in research of India's Political Economy (IPE). The research agenda starts with our view that IPE cannot be understood without a framework that takes into account the complexity of post-independence Indian economic policy history of an activist, idealistic, federal (albeit with strong unitary features) state and possible alternative approaches to political economy. Above all the long shadow of the colonial period (1858-1947). Since the assumption of direct rule by the British government in 1858 over areas not under the governance of princely states. The legacy of the economic, political and social institutions, and movements (e.g. independence struggle led by Mahatma Gandhi, Muslim League under the leadership of Mohammad Ali, Jinnah, and others) on post-independence history is not only very significant. The goal of our research is to characterize the dynamic "policy production system" in which economic policy outcomes are endogenous emerging from the interaction of individuals, groups of individuals (e.g. political parties, interest groups, etc.), social groups (e.g. based on centre, religion, regional origins and mother tongues), and institutions including regions in power at the centre and states. It is our hope that we can adequately explain the dynamics in which past and expectations about the future influence the present in significant ways. Our analytical framework would draw heavily from Avinash Dixit (1998) on a Transactions Cost Politics Approach to the making of economic policy. We presented our research agenda (What is Indian Political Economic of Economic Reform) at Stanford's India Conference in September 2009 ([http://scid.stanford.edu/system/files/shared/Wallack-Srinivasan\\_9-28-09.pdf](http://scid.stanford.edu/system/files/shared/Wallack-Srinivasan_9-28-09.pdf)).

#### **2.7.2.6 Effectiveness and Labour Market Policies**



Chapter 6, the last chapter is on increasing the effectiveness of active labour market policies. The policies and programmes considered in the chapter are: Public Works of the Central Government, Social Insurance Schemes, Employment Exchange, and Vocational Education and Training.

In India, their own labour is the dominant, if not the only asset for most of the participants in the labour force. As such, the returns to this asset of theirs through wages, salaries from employment as workers and earnings from self-employment, determine whether they are poor (according to the modest Indian poverty line) or not. The introduction begins with stating these facts somewhat differently as of close correlation between labour earnings and poverty in India and argues that this has created a demand for active labour market policies listed above. I agree with this assessment.

The potential for poverty alleviation and importantly its eradication of well designed and implemented rural public works programme that create productive assets has long been recognized by many, including in a study using an applied general equilibrium model by Narayana et al (1998). Box 6.1 of this chapter lists the programmes currently in operation of which the National Rural Employment Guarantee (NREG) programme is perhaps the largest. Around 0.6 percent of GDP was spent on it in 2009-10. The issues whether NREG has created assets that are expected to yield acceptable social rates of returns, both in absolute terms and also relative to those from alternative social expenditures, redistributive effects in favour of the poor of NREG and other employment programmes targeted at the poor have been realized, and many other issues have been discussed in the literature. This chapter goes over this ground very well. I do not have much to add or comment on it. However, one issue that is neither raised or discussed deeply, if it is raised at all in the literature and also in Section B of this chapter is whether any of the employment generation programmes, even if they are successfully targeted and implemented so that they reach the poor fully, succeed just in keeping the poor from sinking further into poverty and not necessarily in permanently raising the targeted poor above the poverty line. The failure to raise this issue is partly a problem of not having longitudinal panel data to analyze it satisfactorily. But it may also be due to the nature of political competition in India in which an election in one or more states, if not a parliamentary election due every five years, takes place almost every year. Given the oft

commented myopia of the political class everywhere, considerations that go beyond the next election rarely get attention as well as their populism in India and elsewhere, it is not surprising that the potential trade-off between short run poverty alleviation and longer run poverty eradication is not discussed, let alone addressed. Addressing the trade-off would naturally raise issues that politicians try to avoid, even if they understood them such as consideration of inter-generational equity, discount rates to be used in inter-temporal calculus and the uncertain ties associated with future costs and benefits. These considerations apply not only to NREG and other employment programmes but also to social insurance, public health and education expenditures and indeed all public consumption and investment expenditures.

The discussion in Social Insurance Schemes in Section C again covers the situation as it has been and is in India and does it well. What I missed is moving to a forward looking discussion, even if speculative as it has to be in some respects given the lack of data and models for the Indian context, as to how the risk environment is and could be projected to evolve in the relevant future (which could be very long) in the future based on trends in mortality, morbidity and disease environment as well as in the time structure of costs and benefits of prevention versus ex post curative expenditures so on. My fear, and it is no more than that, is that this complex of future risk environment may be changing faster than the projected period of possible validity of policies designed on the basis of current knowledge. Paragraphs 35-37 of this section on the Way Forward implicitly raise some of these issues, but a more explicit discussion of their specifics would be desirable.

Section D on official employment exchanges goes over the various reasons why most of them failed as effective mechanisms to bring about a match between job seekers registered with them and the needs of employers who seek to fill vacancies, although as the section points out some exchanges in some states do better than those in others. My reading of the situation is that the incentives of employers to use these exchanges in filling vacancies, and of the job seekers with better than average employment prospects to register with them, do not seem to be high as compared to the private alternatives to the exchanges that have emerged for both. This may mean that the registers of the exchanges may exhibit a form of adverse selection and implications drawn based on them would be biased. Paragraph 43 does recognize these incentive problems. I hope my pessimism is

exaggerated and wrong about the prospects that official exchanges, even if successfully reformed as per the suggestions of Section D would play an effective role in improving the match between job vacancies of employers and job needs of the unemployed.

Section E on vocational education (in regular schools or specialized schools) and training notes that neither has it been popular with potential students nor is there a significant demand for their output, as compared to those with good general primary and secondary education, from employers. This being the case, the section advocates strengthening secondary education. This would be desirable in any case even if the vocational education and training was to be somewhat more effective than they have been. The discussion of the propensity to offer in-house training to workers by employers is very interesting. Apparently a World Bank study has shown the employers find it more fruitful to them to spend their resources on carefully selecting workers from those with better formal pre-employment education, than spend on their post-employment in-house training. However, there appears to be some limited evidence that in the IT sectors, firms like Tata Consulting Services and Infosys and others are able to recruit candidates with a Bachelor degree without any discernable employable skills and train them in a relatively short period into professional IT workers. This evidence should be mentioned. The discussion of the roles of public and non-public (particularly in the informal sector) of training is informative and useful.

In sum, the findings and recommendations of the chapter are mostly appropriate and indeed policy relevant. However, they could be strengthened by embedding what it calls active labour market policies in a portfolio of all policies, including direct (such as labour market policies) and indirect (such as those that influence labour demands and supplies) and viewing policy choices among them as a portfolio choice problem.

The Report as a whole, as I said at the beginning of my discussion, is comprehensive and addresses almost all relevant issues and offers very relevant policy directions. The recurring theme in all my comments has been that it needs a dynamic and well-specified overall analytical framework to tie all its data, analysis and findings together better.

### 2.7.3 Pakistan

Pakistan's Planning Commission has set up a number of Working Groups and Task Forces for preparing the 10<sup>th</sup> Five year Plan for 2010-15. The Approach Paper for the Plan has already been published. One of the Working Groups is on Employment and Income Distribution, chaired by Haris Gazdar, Executive Director, Collective for Social Science Research. His background paper, Gazdar (2010), covers a broad range of issues and policy options and refers to the relevant research by Pakistani and other scholars. In its brief review of underlying theory, it refers to progressively nuanced and elaborated versions of the "dual economy" development models of the early development theory as emphasizing quality, and not just quantity, of human resources, which in turn is linked to investments in human capital such as education and health. This led to an understanding of a two-way relation between growth and poverty reduction – in one way faster growth reduces poverty through faster growth of employment and thereby reduces poverty since the poor have few, if any, income-earning assets other than their own labour. In the other direction, public policies that enable the poor to invest in education, health and other human capital enhancing activities, so that returns from such investments augments their future income and thereby reduces poverty, but also contributes to foster growth. Public investments in social sectors, to the extent they do not crowd out private investment in these or other sectors, could lead to faster growth and poverty reduction through growth-poverty linkage.

The paper rightly notes that the elaboration, nuancing and updating of the traditional dual economy models have led to a better understanding of institutions operating through the markets and non-market channels. This understanding has led to an analytically sharp approach to distortions in labour use in the organized segment of the economy, most of them politically induced legislative enactments that protect a small privileged group of unionized workers at the expense of much larger number of informal workers and potential entrants to the work force. This in turn led to the advocacy of more flexible arrangements for labour use. The paper also recognizes that some of the distortions arise from social attitudes and norms about gender roles, clan and caste divisions and the need for public interventions to overcome these barriers and the resulting segmentation in labour use.

The brief exposition of theory is followed up by a discussion of the empirical evidence from Pakistan, which is meant to be used as a guide for developing and outlining a framework for policies and priorities to be followed during the 10<sup>th</sup> plan period. Unfortunately, as I argue below, the framework and policies turn out to be vague and general rather than concrete and specific.

I have already presented the demographic characteristics and features of labour utilization in Pakistan in Section 2 of Part 1. Not only labour participation rates of females are very low (less than 20 percent) though increasing over time, unpaid family workers accounted for more than 50 percent of the female work force in 1999-2000 and even larger 65 percent in 2007-2008. Pakistan's growth since the 1990's, until a slow-down began after 2006-2007, was in large part led by service sectors particularly the finance sector and in part by public investment financed by foreign aid and capital inflows. However, the link between aggregate growth and employment was weak. There is a trend towards "informalization and casualization" of the work force in small part driven by unhelpful labour regulations in the formal sector, and in large part by what was happening in the dominant agricultural sector – increasing self-cultivate, declining share tenancy and the rise in engagement of casual labour. This in turn emphasizes the need for agricultural reforms and modernization.

One factor that enabled poverty reduction despite the weak growth – employment linkage was external migration of workers. In 2000, the outflow was 400,000 workers constituting more than a quarter of the total addition to domestic work force in 2006-2007 and 2007-2008.

Recent research on education, employment and poverty reduction in Pakistan cited in the paper suggest that (i) returns to education are convex (i.e. exhibit increasing marginal returns) rather than concave (ii) females receive lower wages than men with comparable education at all levels of education (iii) women typically join the work force at higher levels of education than men and most interestingly (iv) measured ability had no direct effect on earnings for men or women so that the positive correlation of education with earnings was almost entirely due to the use of educational credentials as a screen. These results are consistent with the finding that formal sector jobs (mostly in the public sector) which command a premium even after controlling for education tend to be rationed by prior social identity.

Social institutions and norms marginalize some groups (particularly women) and restrict educational and operational mobility. This marginalization sustains the continuing prevalence of bonded and child labour and political disempowerment of socially marginalized groups.

The framework for policy priorities for the 10<sup>th</sup> Five Year Plan sets the following six quantitative and qualitative objectives each.

### **Quantitative Objectives**

- Increase in high quality domestic employment opportunities for men and women
- Reversal of informalization of the workforce
- Increase in female labour force participation
- Reduction in the proportion of unpaid family labour in the workforce
- Increase in non-agricultural and non-service sector employment
- Slowing down of the casualization of the agrarian workforce

### **Qualitative Objectives**

- Pro-active engagement with factors leading to bonded or forced labour
- Progress towards changing social norms and attitudes towards child labour
- Engagement with social marginalization in labour arrangements
- Engagement with patriarchy and gender segmentation of labour market
- Pro-active labour market interventions for impersonal third party contract enforcement
- Skills enhancement in place of qualification credentials as role of schooling and education

Unfortunately the quantitative objectives are not in fact stated in quantitative terms in relation to the actuals at the beginning of the plan and the qualitative objectives are vague. Other than recognizing, first, that the Pakistan economy is currently on a stabilization path though likely to resume growth soon, second, its reliance on external resources and its strategic underpinning cannot be significantly altered during the five years of the plan, third the country's economic potential is highly dependent on the resolution of bilateral and regional

disputes as well as addressing internal security challenges and putting federal-provincial politico-economic relations on a sounder foundation and fifth and last, Pakistan faces a potential demographic dividend from a bulge in the share of working age population in the total, paper does not offer any alternative economic and political scenarios. The framework is a disappointingly long “wish list” rather than a concrete set of policies and priorities relating to counter cyclical employment and demand management, public investment-employment linkages, “optional” combination of labour market flexibility and security, local labour arbitration and information, affirmative action for women workers/entrepreneurs, cooperatives and centres for women, job creation in health and education, intervention to slow down casualization in agriculture and strategic technical and vocational training.

Gazdar’s paper referred to the large share (50 percent in 1999-2000 and 65 percent in 2007-09) of unpaid family workers (UFWs) among female workers. Shahnaz et al (2008) attempt a micro-economic (probit) analysis, separately of the data from labour force surveys (LFSs) of 2001-02 and 2005-06, of the probability that a worker is an UFW based on the characteristics of the employed individual and his/her household, occupational status of the employed, whether the individual worked less than 35 hours in the week as well as his/her region (rural/urban) and province of residence. Given that by definition, an UFW presumably works on a family farm or non-farm enterprise, it would have been interesting to include some aspects of the family farm (size of land cultivated, crop growth, whether irrigated or not, whether it employed paid workers as well) or enterprise (total employment or value of output industry). Unfortunately the LFS used by the authors do not include such data. Nor do they include any data on the consumption or income of the household of the UFWs. After all, the contribution of an unpaid family worker to his/her household has to be reflected in household income or consumption, since he or she is not paid any wages. For this reason, the authors go outside LFS and use two other household surveys, which have data on consumption, income, as well as the number of UFWs in each household. They run an ordinary least squares regression of nominal household consumption (or its logarithm) on nominal household income, number of earners and UFW. The same regression is also run with all the variables defined in per capita (i.e. each variable divided by household size) terms in absolute values as well in

the logarithms. Unfortunately, these regressions are not motivated by any theory: one would have thought that income would depend on the number of earners as well as of UFW and the effects of these variables on consumption would be indirect, arising mostly through their effects on income and much less direct. This view would call for estimating a two equation (a two-equation simultaneous system with income and consumption as endogenous variables in which earners and UFWs would be absent from the consumption equation).

The authors do not test whether the probits for the two years are significantly different and if not, they could have used a pooled probit regression. Be that as it may, the probit results (taking both years together) show that females, children and youth, as compared to males, have a higher probability of being an UFW. Somewhat puzzling is the effect of educational level on the probability being an UFW. Those with below primary level of education had the **lowest probability** among the three levels in 2001-02. But in 2005-06 they had the **highest probability!**. Those with middle level of education had the highest (second highest) probability of being an UFW in 2001-02 and in 2005-06. Those with primary level of education shift from having the second highest probability in 2001-02 to the lowest probability in 2005-06. Those with the highest education, namely, matric, have the probability of being an UFW close to the probability of those with a primary level of education in both years. The authors offer no explanation for this pattern.

Those who work for less than 35 hours a week are more probable of being an UFW. It is likely that the number of hours worked is a jointly dependant endogenous variable with being an UFW – if this is the case, its coefficient estimate in a probit of being a UFW on working hours would be biased. Workers who are migrants, urban residents, have jobs outside agriculture, live in provinces other than Balochistan and hold formal sector jobs are less probable of being an UFW. Since the probits are basically a reduced form of an implicit but unspecified structure, the probabilities estimated cannot be interpreted structurally. For example, the probability of being an UFW is lower for an urban resident – but one cannot distinguish whether this arises from the demand for UFWs being lower in urban areas or from supply being lower.



The coefficients of the regressions of nominal consumption on nominal income, number of earner and of UFWs do not show a consistent sign and magnitude patterns across regressions. In any case it is hard to interpret them without a plausible theory.

Shahzaz (2006) estimates three models for analyzing underemployment and voluntary part-time employment among youth in Pakistan based on LFS for 2003-04. One model simply estimates a reduced form regression of the number of hours worked by employed youth. In another, the continuous variable, hours worked is redefined in a binary form, indicating whether the employed youth worked more or less than 35 hours and a logit model is estimated with the binary variable as the dependent variable. Yet another model, splits the sample data into three mutually exclusive categories; fully employed working for more than 35 hours, voluntarily working less than 35 hours and in-voluntarily working less than 35 hours or underemployed and estimates their probabilities through a multi-nominal logit model. The explanatory variables of all three models are the same, except that the employment status (self-employed, employee or UFW) variables relating to the head of the household are omitted from the logit or multi-nominal logit models for unexplained reasons. In fact the vector of explanatory variables, namely, the characteristics of the employed youth and of the head of the household, household size and residential status (rural/urban and province) are similar to the ones used later in Shahnaz et al (2008).

The fact that the observed number of hours of work of the employed and, if less than 35 hours, whether it is a voluntary or involuntary decision, is conditional on the youth worker participating in the labour force, and of being employed. But conditional on participating their conditioning probabilities are not analyzed, since all three models use the data on employed only. Besides all three models are presumably reduced forms of some unspecified structure. In any case, the 35 hour cut-off for determining whether a person is fully employed or not is entirely arbitrary. Moreover, as the author rightly notes, the concept of underemployment and whether it has anything to do with the arbitrary cut-off of hours worked, is the result of voluntary or involuntary decision of the underemployed, are elusive and subject to, as the author says, a “maze” of interpretations. Shahnaz chose the arbitrary 35 hour cut-off for analysis because it is “operationally tractable and quantifiable” (Shahnaz, 2006,

p 24). The problem with this cut-off is that the share of youth working less than 35 hours (between 12 and 15 percent during 1990-91 to 2003-04) overestimates the proportion of underemployed as defined by ILO and Pakistan's LFS. The latter, which takes into account other relevant aspects of worker's behavior such whether he or she actively searched for additional work as well as aspects of working conditions, was considerably less, varying between 0.4 to 3.1 percent during the same period. This means that the findings from the coefficient estimates of the three models of the author based on the cut-off of 35 hours could be very misleading and for this reason, I do not discuss them here. Still the factual data in the paper are informative.

### **2.7.3 Sri Lanka**

Nanayakkara (2004) descriptively analyzes the trends from 1990 until 2002 LFS in employment and unemployment in Sri Lanka, using LFS data. He raises some issues and offers some options for addressing them. Among the salient features of the levels and trends: Unemployment rate has decreased from 15.9 percent in 1990 to 8.2 percent in 2002. 80 percent of the unemployed are in the age group 15-29 years, with the age group 20-29 itself accounting for 60 percent. More than 90 percent (and 95 percent since 1999) of the unemployed since 1990 had a grade 5-10 or above level of education. The proportion is slightly higher among females. Graduate unemployment is a serious and worsening problem. Also, emigration of talented to western countries could prove a constraint on economic growth in the future. Although establishment of free trade zone external migration and the efficient functioning of the informal sector have eased unemployment for the less skilled and females, they have not eased unemployment among educated youth. The basic issue according to the author is that for a very long period of time, Sri Lanka's heavily subsidized higher education system has not been geared to cater to the needs of the labour market, particularly in the formal sector. Substantial legal protection of jobs as well as unionization in the organized formal sector increases the demand for jobs in the formal selective to the informal sector from educated youth compounds the problem. The author's suggestion of policy options are very general and need not be repeated here.

Heltberg and Vodopivec (2009) of the World Bank also analyze the key trends and finding in Sri Lanka's market during 1992-2002 and assess the likely impact of labour market policies to the trends and

outcome. They use LFS for 2002 and also Sri Lanka Integrated Household Survey of Living Standards carried out in 1999-2000. They go beyond description by an econometric analysis of decisions regarding labour force participation (LFP), employment (EMP), employment status (ES), earnings and reservation wages (RW) of the unemployed. LFP is modeled as a binary probit. Conditional on participation, EMP is also modeled as a binary probit. Conditional as being employed, ES is modeled as a multinomial logit with three status categories salaried employee, employer and self-employed with UFW together as the omitted category. Log of earnings Y of employed salaried workers is regressed on characteristics of employment and the worker, and geographical variables. Lastly, reservation wage RW of an unemployed person is defined as lowest (hypothetical) wage at which he or she is willing to accept a job offer and estimate using the distribution of RWs among the unemployed. The distribution was derived by the authors using LFS data, with the same set of explanatory variables such as age, age squared, number of years of vocational training (in logs) non-self earnings, number of children below six in the household and dummies for head, wife, son or daughter of head of household, education level completed, group identities (Sri Lankan Tamil, Indian Tamil, Sri Lankan Moor or other ethnic groups, with Sinhalese as the omitted category), residence (rural or tea estates).

Their more important findings are: men (relative to women) are more likely to be in the labour force, face less unemployment and more likely to be employers, receive and expect to receive higher salaries. They conclude that,

“Education has a very large and statistically significant impact on labour market outcomes. Individuals with low or high education (at least 12 years) are more likely to participate in the labor force. Education increased the likelihood of being unemployed. Education at or above GCE A/L is associated with higher frequency of being an employee; education also increases the probability of being an employer (or, in other words, self-employment is more dominant among the less-educated). Education has a strong impact on job earnings and as mentioned a smaller impact on reservation wages. This suggests that labour markets do place a value on education, and that education does not lead to –“un-employability”. The higher unemployment among the educated youth is due to labour market distortions, not to their education. The analysis cannot determine, however, how much of the returns to education that are caused by the skills learned at school directly, and how much they derive from the “signaling” effect of capable, motivated individuals seeking schooling.” (Heltberg and Vodopivec, 2009, 34-45)

Although there is no evidence of ethnic discrimination in salaries, ethnicity does matter: Sri Lankan and Indian Tamils are more likely to be self-employed, Sri Lankan Tamils are less likely to be in the labour force, face higher unemployment but are more likely to be employers, if they are employed.

Characteristics of the individual and his or her household matter according to the authors (ibid, 35)

- Sons or daughters of the household head are more likely to be in unemployment
- Heads and spouses face lower probability of unemployment
- Earnings of other household members increases the probability of unemployment
- Many dependents outside working age decrease unemployment
- In addition, small children below 6 decrease the labour force participation of women; they increase male participation and reduce male unemployment.

From a policy perspective, the most important finding of the authors' analysis is that restrictive employment protection legislation, particularly the Termination Employment of Workman Act of 1971 which, according to the authors set up one of the costliest and most restrictive severance payment systems in the world. It limits job creation, restricts access to jobs with good pay and job security and formal wage setting mechanisms, increases returns to formal sector workers, thus contributing to labour market segmentation. Importantly it increases the competition to land a formal sector job by acquiring education or other credentials which serve mostly as screening devices and not as signals of productivity in selecting workers queuing for such jobs.

### **3.0 Studies from Outside Asia**

The studies reviewed in section 2.4-2.7 except for three, are on major countries of South Asia and naturally focus on some major aspects of labour utilization in South Asia. Of the three which are not specifically on South Asia, one is on a two-country model of foreign trade and investment, and two on informal jobs, one using Brazilian and the other a cross country study, were chosen because their topics and conclusion are very relevant to South Asia, which historically was much insulated from foreign trade and investment and where a very large majority of those in the work force have informal jobs. Since the studies use different methodologies, different data sets and also vary in their analytical quality, it is not possible to synthesize them meaningfully.

What I will do instead is to reiterate the relevance of their findings (of course without repeating the caveats) to the features of South Asian labour utilization.

First, it is well documented that until the 1980s if not later South Asian countries insulated themselves to varying degrees (with India being the most insulated); the emphasis on their labour intensive manufacturing in their development and industrialization strategies was inadequate (again, the extent of inadequacy varies across countries, with the inadequacy of India being the most evident) and ineffective; and, that there were several factors including those attributable to policy. One of the most deleterious was the draconian labour laws. These segmented labour allocations across regions, between genders etc. and restricted movement of labour across segments, thus creating inflexibilities in addressing significant inefficiencies in labour utilization. It is in this context the relevance of the findings from the theoretical paper of Helpman and Itskhoki (2007) are relevant. They show that the gains from trade liberalization would be higher if labour markets were more flexible labour markets; flexibility also confers comparative advantage to countries with more flexible markets in the market for exports of differentiated manufactured products; and, a country with more flexible labour markets has higher total factor productivity (TFP) and lower price level; since the growth from contribution TFP, unlike those from factor accumulation which can run out because of diminishing returns, growth from TFP is sustainable and that inflationary tendencies are apparently contained better with more flexible labour markets, it is essential to add on factors that make labour allocations inflexible in South Asia.

The findings from studies on informal versus formal jobs are very relevant with evident policy implications for understanding and addressing appropriately the very large share of informal employment in total employment. Viewed on a phenomenon of transition between a situation where most of workers are employed at low real wages, high job insecurity and few non-wage benefits in informal activities to one where they are employed in formal jobs with high real wages as well as non-wage benefits and greater job security, two policy issues arise. First is the transitional phase characterized by greater efficiency and productivity in the use of labour in informal employment as labour force grows, and is the pace of transition as rapid as possible? In other words is the transitional path dynamically efficient? Clearly the answer would depend on removing

policy impediments on increasing efficiency of labour use within formal as well as informal sectors and on movement of labour between the two.

Unfortunately the policy simulations from the very recent econometric study of Brazilian data by Meghir et al (2009) on informality are not available. Still its framework of the dynamics through endogenous decisions of firms as to their sector of operation and of workers in their search for employment in the two sectors and in their decision of acceptance/rejection of job offers from firms and the resulting rates of job destruction and rates of job offers as firms shift operations from one sector to the other is interesting, though the Brazilian labour market environment is far different from that of South Asia. Among the findings with clear implications for South Asia is that job destruction rates from the informal sector are basically the same across genders and education but with some variation: highest job destruction rates are associated with males who have low education. Women not only have lower job offer rates when they are unemployed, but also the women with low education far worse than educated ones in this respect. It is obvious that the widespread and persistent bias against girls and women in education in South Asia has implications for employment outcomes in the informal sector and the implication that the bias has to be countered through policy is equally obvious.

The WLO-UNIDO study based on cross country analysis of the impact of globalization on informal sector jobs is also policy relevant to South Asia. It finds that globalization has had a limited effect in reducing labour market vulnerabilities and its economic dynamism has not reduced high informality rates. At a theoretical level this should cause no surprise since there were and still are many other distortions in the labour and other markets there is no reason to expect reduce trade distortions through globalization could have effects that would not have occurred had those distortions not been present. Since the South Asian context is one of multiple distortions, the obvious policy implication is that a policy reform portfolio or agenda with attacking all the major distortions together rather than each one in a piecemeal fashion is appropriate. Since the content of the portfolio and the weights to be assigned to different policies in the portfolio in the reform process would depend on the context research on context specific analyses is an essential prerequisite for reforms. There is a very recent (December 2009) study from Bank for International Settlements, in honour of Palle S. Andersen on

Globalization, labour markets and International Adjustment with a chapter on labour markets in newly integrating economies including China and India. I have not had time to read the findings in this chapter and its findings.

### 3. Conclusion

It was shown in Part I on Labour Utilization that outcomes of labour utilization in South Asia are the result of the interaction among household markets and public policies in a environment in which a large share of the population is rural, poor, self-employed and depend on agriculture for their employment.

This long paper comprising of Part I and Part II looked at available economic studies on labour utilization, consisting of microeconomic and empirical studies on household decisions on the utilization of their dominant resource namely, labour, economy-wide as well as sectoral studies particularly of agriculture, the dominant sector from the perspective of labour utilization and poverty alleviation, with a focus on sectoral and economy-wide policies that influence labour utilization outcomes. Country-specific as well as cross-country studies were covered. However, the choice of studies covered was by no means comprehensive but necessarily selective.

Given the number, scope and diversity of the studies reviewed it is not surprising that they contain a diverse set of findings as well as policy recommendations. I will not attempt to list them all but will highlight a few recommendations that seem to be relevant, but to varying degrees across the whole of South Asia.

Substantial rural-urban, male-female, and age group differences are evident in rates of labour force participation, employment, unemployment, and the extent of informality of employment. Unfortunately, well designed empirical studies that estimate well-specified supply-demand models covering if not the entire economy, at least major sectors of employment do not exists. Only partial studies, most cross-sectional rather

than time series, let alone studies of a panel of units overtime are available. The conclusions and findings have to be viewed with the fact of their limitations in mind.

- Agriculture is the dominant sector of employment in South Asia. Access to land; the essential input to cultivation is dominated by small and marginal holdings. Redistributive land reforms were attempted however have had limited success. With the use of traditional technology, land productivity (as measured by output per hectare of land or value per hectare of land) was to increase as the size of the farm in hectares operated/cultivated decreased. This finding, based on a large number of studies in the literature was found to be robust and several explanatory factors have been suggested. These vary from differential cost of labour between large and small farms, declining quality of land and/or the share of irrigated land as the holding size increased, and as an implication of optimal choice of inputs by farmers facing risk that are proportional to output with risk preferences characterized by non-increasing and non-decreasing relative risk aversion.
- The Green Revolution Technology (GR) however was found to be scale neutral in the sense, that as long as farmers cultivating different sizes of farms faced the same prices for inputs, they would all realize the same rate of returns in the adoption of the technology and the common return would be a decreasing function of input prices.
- With the GR Technology being intensive in the use of water, fertilizers, pesticides, other purchased inputs, and being riskier, attention shifted to policies for ensuring access to water, fertilizers, fuels and electricity for operating shallow as well as tube wells below market prices. These took the form of price subsidization and in some cases supplying inputs such as electricity free of charge to farmers. To enable farmers to have adequate working capital to vary inputs and ensure funds for investing in farm animals, equipment, etc. loans and credit were provided at subsidized interest rates.



- The subsidies were not eliminated gradually as the technologies became more widespread. Vested interests emerged not only to retain the subsidies but also to raise them over time, and also for periodic writing off of farmers' debts. Their fiscal, environmental and political consequences have been substantial.
- Another areas of price subsidization as market interventions in agriculture were in the support of Public Distribution System (PDS) for food grains and few other commodities. Compared to alternative ways to ensuring that the persons have food security, the PDS is less efficient and also does not reach the poor in many areas. The fiscal costs of the PDS have been very high.
- The fact that access to credit as well as public services are conditioned on access to land and the development strategy did not emphasize labour intensive manufacturing, the absence of a competitive land market and other factors are keeping millions more employed in agriculture than what would be deemed efficient. From a better labour utilization perspective, the policy-induced impediments to move out of agriculture, to more productive activities elsewhere in the economy are major deterrents.
- Other non-agricultural sector policies and economy-wide policies such as trade policies had undergone significant reforms at least after the 1980s. Yet there is more to do to make South Asia regionally and globally more integrated.
- Broadly speaking, the paper argues that the interactions between private and public policy decisions by and large determine the outcomes with respect to aggregate and sectoral growth, labour utilization and distribution of incomes and poverty.

- The effects of narrowly defined policies relating to labour such as employment policies, unemployment insurance etc. are quantitatively likely to be far less significant for generating adequate and remunerative employment for a growing labour force than across the board monetary, fiscal, trade and exchange rate, and industrial policies. Some policies may reinforce, while others may offset, each other's effects. To think through the effect of various policies in place or could be adopted, a coherent overall analytical framework consistent with empirical realities is needed. Unfortunately, only narrow analytical frameworks for particular sectors or issues, and empirical studies on them are available in the literature. Helping the poor and vulnerable to cope better with the consequences of volatility in their levels of living in the short run, and to enable them to escape poverty permanently and have a comfortable level of living in the long run through public policy are obviously important. Both short term and long term public policies to address this would depend on the extent to which private institutions, particularly the existence of markets and their functioning, could help the poor and the vulnerable.
- The resources and capacities of the public sector, and the efficiencies and cost effectiveness of the delivery of public services have varied widely within and across South Asian countries. One of the more successful policies, the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) Act in India, and a similar Act in Pakistan at best reduce the chances of the employed and their household from falling below the poverty line in the short run. In general, it does not materially improve the chances of the employed escaping poverty permanently.
- The long term South Asian policy reform agenda is complex, and has to address several issues more or less simultaneously with priorities among them being determined by country contexts. This needs to raise the productivity of those would continue to be employed in agriculture, raise the productivity of those already employed in non-farm activities and also encourage new activities to locate to rural areas.

In industry, policy-created barriers (such as labour laws and other regulations), investment in labour intensive manufacturing have to be removed or at least reduced, small and medium enterprises have to be enabled to grow in number, diversity, and productivity; while ineffective and dysfunctional policies (e.g. reservation of certain products by small scale industry) have to be eliminated.

- An enabling policy environment has to be created for the self-employed, either to become regular wage/salary earners or to restructure their activities to yield much higher incomes.
- Economy-wide reforms have to provide a sound underpinning for the success of other policies – starting with technology upgrading, encouraging innovation, and investment in physical and importantly human infrastructure, and improving access, quality and cost of delivery of education and health services.
- Financial sector reforms for expanding delivery and lowering costs of credit to agriculture and non-agricultural producers, particularly small- farms and enterprises, consumer credit and insurance instruments need to be introduced.
- Foreign sector reforms needed to include improvement in exchange rate and trade, and capital account liberalization policies; monetary policies to maintain price stability would need to be strengthened.
- Reforms of labour and bankruptcy laws, and doing away with layers and layers of bureaucracy to ensure that the cost of doing business is internally competitive enough to attract both domestic and foreign investors and producers. The paper illustrated the above reform agenda in some detail. It also draws some lessons for South Asia from far more successful Chinese Reforms since 1978.

## References

- Bhagwati, Jagdish (1971) "The Generalized Theory of Distortions and Welfare." In J. Bhagwati, R. Jones, R. Mundell, and J. Vanek (eds), *Trade, Balance of Payments and Growth*. Amsterdam: North-Holland Publishing Company.
- BIS (2009), "Globalisation, labour markets and international adjustment." Geneva, Bank for International Settlements.
- Bollard, Albert (2009) <http://www.stanford.edu/~abollard/docs/India%20Size%20Distribution%20Summary%20March%202009.pdf>
- Chandra (2004) Why Ethnic Parties Succeed: Patronage and Ethnic Headcounts in India. Cambridge: Cambridge University Press
- Chhibber, Ajay (1999) "Social Capital, the State, and Development Outcomes." Pp. 296-310 in Social Capital: A Multifaceted Perspective, edited by Ismail Serageldin. Washington, DC: World Bank.
- Chibber, Pradeep and Ken Kollman (1998), "Party Aggregation and the Number of Parties in India and the United States" *American Political Science Review*, Vol. 92, 329-342.
- Dixit, Avinash (2006) The Making of Economic Policy: A Transactions Cost Politics Approach, Cambridge, MA, MIT Press.
- EGAI (2007) Report of the Expert Group on Agricultural Indebtedness, New Delhi, Government of India, Ministry of Finance.
- Gazdar, Haris (2010), 'Employment and Growth: Review and Recommendations', Background Paper for the 10th Five Year Plan, mimeo, Islamabad, Pakistan Planning Commission and Collective for Social Science Research.
- Helpman, Elhanan and Oleg Itshkhoki (2007) "Labor Market Rigidities: Trade and Unemployment," Working Paper 13365, Cambridge, MA, National Bureau of Economic Research.
- Herring, Ronald (2009) Global Rift over Biotechnology, V.T. Krishnamachari Memorial Lecture, New Delhi, Institute of Economic Growth, December, forthcoming as a monograph.
- Herring, Ronald (2001) "Contesting the 'Great Transformation': Local Struggles with the Market in South India" in James C. Scott and Nina Bhatt (eds) Agrarian Studies: Synthetic Working at the Cutting Edge, New Haven, Yale University Press.

Hossain, Mahabub (2009) “Dynamics of Poverty in Rind Bangladesh, 1988-2007: An Analysis of Household Level Panel Data,” [www.peri.umass.edu/khan](http://www.peri.umass.edu/khan).

IIAPR (1988), Report of the National Planning Committee, 1938, New Delhi, Indian Institute of Applied Political Research.

ILO and WTO (2009): Globalization and Informal Jobs in Developing Countries, Geneva, International Labour Organization and World Trade Organization.

Islam, Rizwanul (2009) “Patterns of Economic Growth and its Implication for Employment” [www.peri.umass.edu/khan](http://www.peri.umass.edu/khan).

Kapur, Devesh and Mehta, Pratap Bhanu (2005) “Public Institutions in India: Performance and Design.” Oxford University Press.

Kehoe, Timothy (2005) “An Evaluation of the Performance of Applied General Equilibrium Models on the Impact of NAFTA,” Chapter 13 in Timothy Kehoe, T.N. Srinivasan and John Whalley (Eds.) Frontiers in Applied General Equilibrium Modeling: Essays in Honor of Herbert Scarf, New York: Cambridge University Press.

Kohli, Atul (1990) “Democracy and Discontent: India’s Growing Crisis of Governability.” Cambridge: Cambridge University Press.

Lucas, Robert (1988) “On the Mechanics of Development” *Journal of Monetary Economics*, 223-42.

Mahalanobis, P.C. (1961) Talks on Planning, Indian Statistical Series No. 14. Statistical Publishing Society, Calcutta.

Mahmud, S. (2003) “Is Bangladesh Experiencing a ‘Feminization’ of the Labour Force?” Dhaka, Bangladesh Institute of Development Studies.

Mahmud, W. (2001) “Informal Sector in Bangladesh: A Macroeconomic Perspective,” Report prepared for the ILO as an input to a National Action Plan for Employment generation in the Informal Sector. Dhaka.

Mazumdar, Dipak and Sandip Sarakar (2008) Globalization, Labor Markets and Inequality in India, New York: Routledge.

Meghir, Costas, Renata Narita and Jean Marc Robin (2009) “Wages and Informality in Developing Countries,” paper presented on October 30, 2009 at the Labour and Population Workshop, Department of Economics, Yale University.

Mehta, Pratap Bhanu (2003) “The Burden of Democracy.” Penguin India.

MOF (2010) Economic Survey, 2009-10, New Delhi, Government of India, Ministry of Finance.

Myrdal, Gunnar (1968) Asian Drama: An Inquiry into the Poverty of Nations, New York: Twentieth Century Fund

Narayana, N.S., Kirit Parikh, and T.N. Srinivasan (1988) "Rural Works Programs in India: Costs and Benefits," *Journal of Development Economics* 29(2), 131-156.

Nilekani, Nandan (2009) "Imagining India: The Idea of a Renewed Nation." Penguin Press HC.

NSS (2007a) Employment and Unemployment Situation in India, 2005-06 Report no. 522, New Delhi, National Sample Survey Organization.

NSS (2007b) Informal Sector and Conditions of Employment in India, 2004-05 Report no. 519, New Delhi, National Sample Survey Organization.

NSS (2006a) Employment and Unemployment Situation in India, 2004-05, Part I Report no. 515, New Delhi, National Sample Survey Organization.

NSS (2006b) Employment and Unemployment Situation in India, 2005-05, Part II Report no. 516, New Delhi, National Sample Survey Organization.

NSS (2003a) Household Ownership Holdings in India, 2003, Report no. 491, New Delhi, National Sample Survey Organization.

NSS (2003b) Households Some Aspects of Household Operational Holdings in India, 2002-03, Report no. 492, New Delhi, National Sample Survey Organization.

Ozler, S. (1999) "Globalization, Employment and Gender," Background Paper for UNDP, Human Development Report, Volume 1 New York, United Nations Development Programme and Oxford University Press.

Pritchett, Lant (2009) "Is India a Flailing State? Detours on the Four-Lane Highway to Modernization."

Rahman, Rushidan (2009) "An Analysis of Real Wage in Bangladesh and its Implications for Underemployment and Poverty" [www.peri.umass.edu/khan](http://www.peri.umass.edu/khan).

Rudra, Ashok and Amartya Sen (1980) "Farm Size and Labour Use: Analysis and Policy" Economic and Political Weekly, 15 (5/7), Annual Number, February 391-394

Sen, Amartya (1962) "An Aspect of Indian Agriculture", Economic Weekly, Annual Number, February.

Sen, Amartya (1964) "Size of Holdings and Productivity", Economic Weekly, Annual Number, February.

Shahnaz, Lubna, Umer Khalid and Sajjad Akhtan (2008) "Unpaid Family Workers: Unraveling the Mystery of Falling Unemployment," [www.crprid.org](http://www.crprid.org).

Singh, Nirvikar and T.N. Srinivasan (2006) "Indian Federalism, Economic Reform and Globalization," in Federalism and Economic Reform: International Perspectives, Jessica Wallack and T.N. Srinivasan (eds), New York: Cambridge University Press.

Shahnaz, Lubna (2006) "Underemployment Voluntary Part Time Work Among Youth in Pakistan," [www.crprid.org](http://www.crprid.org).

Singh, Inderjit, Lyn Squire and John Strauss (eds) (1986) Agricultural Household Models: Extensions, Applications and Policy, Washington D.C., World Bank.

Srinivasan, T.N. (2010) "Employment, India's Development Strategy and Reforms," Journal of Comparative Economics, 38, 82-106.

Srinivasan, T.N. (2009a) "Data Collection, Statistical Analysis and Policy", Keynote Address, Annual Statistics Day, July 2, 2009, Mumbai, Reserve Bank of India.

Srinivasan, T.N. (2009b) "Development Strategy: the State and Agriculture since Independence" in Bhaskar Dutta, Tridip Ray and E. Somanathan (eds), New and Enduring Themes in Development Economics, World Scientific: Singapore, 267-302.

Srinivasan, T.N. (2008a) "Price Indices and Inflation Rates," in *Economic and Political Weekly*, 217-223.

Srinivasan, T.N. (2008b) "Some Aspects of Price Indices, Inflation Rates and the Services Sector in National Income Statistics," in N. Jayaram and R.S. Deshpande (eds), Footprints of Development and Change: Essays in memory of Professor V.K.R.V. Rao, Academic Foundation, new Delhi, 437-474.

Srinivasan, T.N. (2007) "Poverty Lines in India: Reflections after the Patna Conference," in *Economic and Political Weekly*, 42(40), 4155-4165.

Srinivasan, T.N. (2003) "India's Statistical System: Critiquing the Report of the National Statistical Commission", *Economic and Political Weekly*.

Srinivasan, T.N. (1972) "Farm Size and Productivity: Implications of Choice Under Uncertainty," Sankhya, 34 (B), 409-20.

Srinivasan, T.N. and Vani Archana (2010a) “India in the Global and Regional Trades: Determinants of Aggregate and bilateral Trade Flows” (available on request, [t.srinivasan@yale.edu](mailto:t.srinivasan@yale.edu))

Srinivasan, T.N. and Vani Archana (2010b) “Determinants of Export Decisions of Firms” ((available on request, [t.srinivasan@yale.edu](mailto:t.srinivasan@yale.edu) )

Sutton, John (2005) “The Auto-component Supply Chain in China and India: A Benchmark Study,” in Francois Bourguignon and Boris Pleskovic (eds) Annual Bank Conference on Development Economics 2005: Lessons of Experience, Washington D.C., World Bank.

Unni, J. (2005) “Employment Trends and Determinants in the Informal Sector”, Paper written for India Labor Conference and Draft World Bank Report, *India’s Employment challenge: Creating Jobs, Helping Workers*.

Varshney, Ashutosh (2007) “India’s Democratic Challenge.” Foreign Affairs, March-April 2007.

World Bank (2008) India’s Employment Challenge: Creating Jobs, Helping Workers.