Labour markets in newly integrating economies such as India and China: are they different?

Suresh D Tendulkar[1]

Introduction

We start with an elementary economic proposition distinguishing labour markets from commodity markets with implications for economic growth. Labour markets differ fundamentally from commodity markets because the price of labour cannot be pushed to zero in the situations of oversupply typical in the developing countries. Their functioning is therefore subject to some socially determined (positive) minimum supply price of labour and is characterised by perpetual disequilibrium as reflected in the rate of unemployment. In the advanced industrialised countries with very high elasticity of capital, labour supply is a primary constraint on economic growth and unemployment is of a frictional or cyclical nature. The reproducible tangible capital-constrained developing countries are characterised by unlimited labour supplies at some positive socially determined minimum supply price. Lewis (1954) proposed a two-sector model of economic growth for such countries. This model postulated a gradual transfer of labour from a subsistence (S) sector (using traditional low-productivity technology and acting as a residual absorber of unlimited labour supplies) to a capitalist (C) sector using modern, higher-productivity technology with high output supply elasticity and operating on a profit-maximising commercial basis. The critical difference here in comparison with the two-sector neoclassical model of growth was that the socially determined minimum supply price of labour was given by the average product in the S sector and not the marginal product of labour, which is zero in the S sector. Labour being in abundant supply, the primary constraint on growth in a closed economy was argued to be wage goods (primarily food grains) supply produced in the S sector with low elasticity of supply.

As regards the analytical framework, we adopt the evolutionary institutional framework suggested by North (1990). In this framework, the economic performance of nations, which interacts with and shapes labour market outcomes, is taken to be determined by demography, technology and institutions. Slow-changing and path-dependent demographic forces control long-term labour supply – its characterisation changes from being infinitely elastic in developing countries to being the ultimate primary constraint on economic growth in the advanced industrialised countries. Technology determines the process of transformation of primary and produced inputs into outputs of goods and services which contribute to the welfare of the population. The pace of technological change has accelerated in the last three decades or so. Mutually reinforcing interaction between demographic and technological changes is governed by institutions. North proposes the notion of an institutional matrix (IM) comprising formal and informal rules of the game along with their enforcement characteristics in social, political and economic domains. Formal rules comprise all formally binding procedures while informal rules include society-specific ideological beliefs, traditions, customs, conventions and widely accepted codes of conduct and other behavioural norms. For a given society, IM may be regarded as a society-specific customised institutional

[1] I am thankful to the Bank for International Settlements for the invitation to the conference and to the two discussants for their comments, which complement my paper by providing a wider perspective in terms of coverage of issues as well as countries. The views expressed in this paper and any errors that remain are mine.

software governing interaction in social, political and economic domains involving competition and cooperation among the participants. Self-interest-based society-specific motivating forces for action are provided by the incentive structure embedded in a given IM that indicates opportunities for gains in the social, political and economic sphere. North maintains that institutions, in combination with demography and technology, constitute the key determinants of the economic performance of nations. In the specific context of the labour market, labour participation practices, minimum acceptable supply price of labour in a situation of unlimited labour supplies and adjustment lags in responding to incentives and disincentives, the factors that influence labour market flexibility, are all socio-politically determined such that the labour market becomes a social institution.

1. A brief perspective on global integration in China and India

The pace of globalisation has been governed by technological changes in transport and communications, national trade policies and international institutions such as GATT and its successor the WTO, which, by laying down and enforcing rules for international exchange, have reduced the uncertainties involved in exchanges separated in time and space.

By a deliberate choice of trade policy, both India and China chose to insulate themselves from the global economy immediately after independence in 1947 (India) and 1949 (China). China, after remaining closed since the revolution in 1949, started integrating its economy with the global economy aggressively in 1978, beginning with merchandise trade in the 1980s and following it up with private foreign investment. Similarly, after remaining one of the most heavily regulated and closed market economies in the world for more than three decades after independence, India started hesitant liberalisation of domestic investment in the 1980s and followed with systemic liberalisation (including foreign trade and investment) from 1991 onwards. The US dollar value of total exports of goods and services from China grew at an annual rate of 18.1% between 1995 and 2004, whereas that of India grew at 12.6% over the same period. There was acceleration in total exports between 2000 and 2004, at 23.8% per annum for China and 16.6% for India (Bosworth and Collins (2007), Table 5).

Progressive integration of these two most populous economies should be obvious. Being the late starter, India has been growing at a slower rate than China. These two economies are included among the E7 emerging market economies (EMEs) along with Brazil, Indonesia, Mexico, Russia and Turkey. It is important to note that the recent growth spurts in these economies have been associated with their increasing integration with the world economy. They appear to have clearly benefited in terms of economic growth from their participation in the international division of labour.

The degree of integration among the two Asian giants differs, however. In the just released *Trade and Development Index* (TDI) for 2006 prepared by the United Nations Conference on Trade and Development (UNCTAD), India ranks at the lower end of the third quartile, at 86 among 123 countries. The remaining six EMEs are in the upper half, with Korea at 21, China at 25 and Russia, at 58, being the lowest-ranked among the six. While India led the seven EMEs in terms of international finance, macroeconomic stability and trade performance, it lagged behind other EMEs in respect of human capital, physical infrastructure and openness to trade (*Economic Times* (2007a)). In other words, despite strong trade performance in terms of growth rates of trade variables and significant trade liberalisation in comparison with the pre-1991 period, especially non-trade barriers to trade in India remain high in comparison with other developing countries.

2. Demographic trends

This section can be brief as other papers in the conference will be dealing with demographic trends in detail. Ageing of the population and labour force in the developed countries are well known facts. Population growth rates have slowed and life expectancy has been extended in most developing countries as well. In the present context of labour markets, we may only briefly note the contrast between the two most populous countries, which account for 40% of the world population.

Focusing on the prime or working age group (between 15 and 59 years of age), over the 20-year period between 2005 and 2025, the prime age population in China is projected to rise from 885,182 million to 896,091 million or 0.62% per annum, and its share in the total population to decline from 67.4% to 62.0%.[2] In contrast, the working age population in India is projected to rise from 671,609 million to 899,652 million between 2006 and 2026 (about the same magnitude as that in China in that period) or 1.47% per annum while its share in the total population is expected to rise from 60.4% to 64.3%.[3] As part of the demographic transition, in this scenario India would thus be getting the so-called demographic dividend of a rising share of working age population and hence a rising potential labour supply despite a slowdown in the rate of growth of the total population. With a large pool of working age population, India and China would then face the challenge of putting them to productive uses by maintaining strong economic performance, which would be partly reinforced by the savers exceeding the dissavers (those with negative savings) in a younger population. It is estimated that more than half the world's working age population will be located in these two countries in the next five years.

3. Recent trends in economic growth in India and China

As mentioned earlier, since labour markets interact with and are shaped by economic performance, we note recent trends in economic growth in India and China. In this regard, we draw on Bosworth and Collins (2007), who undertake a comparison of the economic performance of these two Asian giants over the period 1978–2004. This period captures the growth spurts in the two economies in comparison with their pre-1978 past. The authors divide the period into two subperiods: 1978–93 (Period I) and 1993–2004 (Period II). As noted in Section 2, the second period covers the post-1991 systemic reforms in India, which included significant external trade liberalisation. The Chinese economic reforms process, seeking to establish a "socialist market economy", spanned the entire period. The first subperiod involved the replacement of agricultural collectives by a household responsibility system that restored economic incentive in production. The second saw the reform of state-owned enterprises.

Aggregate GDP experienced acceleration from Period I to Period II in both countries although the annual growth rate in China was much higher, at 8.9% (Period I) and 9.7% (Period II), compared to 4.5% and 6.5% respectively in India. With a slowdown in workforce growth in both countries, per worker productivity also accelerated from 6.5% to 8.5% annually in China and from 2.4% to 4.6% annually in India. Around half of this was contributed by total factor productivity growth (TFPG), which reflects outward shifts in production function through technological changes. TFPG in China was three times higher than in India in Period I and about twice as high in Period II. At sectoral level, TFP in the

[2] See United Nations (2007).

[3] See Office of Registrar General (2006).

secondary sector (whose major component is industry) experienced acceleration in China from 3.1% annually to 6.2% and the level of TFPG was as high as 10 times (Period I, 1978–93) and five times (Period II, 1993–2004) that in India. TFP accelerated in the services sector in India, from 1.4% annually to 3.9%, while it decelerated in China. It should be obvious that increasing integration of these two countries has been associated with acceleration in both GDP and TFP, thus bringing out a powerful instrumental role played by international trade in economic growth. However, the composition of export earnings between goods and services presents an interesting contrast. The share of exports of goods in total current export earnings increased in China from 87.0% in 1995 to 90.4% in 2004. In India's case the share of services increased from 17.8% to 32.9% over the same period. In other words, China has become the manufacturing powerhouse of the world while a similar role is being assumed by India in respect of services.

4. Labour market outcomes of economic growth

In a stylised version, the labour market outcome of economic growth is the result of interaction between supply of and demand for labour in productive activities. Supply of labour is determined by demographic factors, labour force participation behaviour and socio-culturally determined minimum supply price expectation. Demand for labour is derived from economic growth triggered by expanding domestic and external demands and technological changes, both of which generate incentives for domestic producers to employ labour in productive activities. To begin with, we first present stylised outcomes at the economy-wide level before introducing broad details regarding labour markets. We note up front that our discussion of China is handicapped by our lack of acquaintance with the finer details of Chinese official statistics. The discussion focuses on employment, the concepts of which appear to be broadly similar in the two countries.

Starting with work participation behaviour as reflected in worker population ratio (WPR), for the entire Indian population (all ages), the estimated number of workers in 2004–05 (from the National Sample Survey (NSS)) was 458 million with a WPR of 41.88%. From the *Key Indicators of Developing Asian and Pacific Countries* published by the Asian Development Bank, we find that the Chinese workforce stood at 752 million in 2004, with a WPR of 59.10%. The Chinese workforce was thus 60% larger, and its WPR 17 percentage points higher, than that in India. The WPR reflects behaviour shaped by sociocultural and economic factors and is known to differ across gender and location (rural-urban). The NSS-based reported WPR for India in 2004 was 54.6% for rural males, 54.9% for urban males, 32.7% for rural females and as low as 16.6% for urban females. We could not trace corresponding details for China. Li and Zax (no date) quote a sample survey-based estimate of WPR for 1995 of 79.7% for males and 68.7% for females. They expect this to decline over time. The corresponding rural-urban population-weighted WPR for India was 54.7% for males and 28.2% for females. China thus has a much larger workforce with a significantly higher average WPR than India for both male and female workers, but very significantly higher for females (by 40.5 percentage points) than for males (by 25 percentage points).

We turn next to the inter-sectoral shifts in workforce that are also described as structural changes. It may be noted that changes in the composition of domestic demand with rises in per capita income bring about shifts in workforce from agricultural sectors with lower than average productivity per worker to non-agricultural sectors with higher than average productivity per worker during the growth process in a closed economy. These inter-sectoral shifts accelerate with integration with the global economy and technological changes which make for a faster pace of structural changes. In general, the higher the rate of economic growth, the faster in pace and greater in quantitative magnitude are the inter-sectoral shifts in workforce.

As a result of the average annual GDP growth of 9.3% in China during 1978–2004, the share of the primary (mostly agricultural) sector in the workforce declined by 24 percentage points from 71% to 47%. The industrial sector gained only 6 percentage points from this shift, while the tertiary sector picked up the remaining 18 percentage points. With nearly half the aggregate GDP growth rate of China, the Indian average annual growth rate of 5.4% during 1978–2004 brought about a 14 percentage point decline in the primary sector share from 71% to 57%. Of this decline, 5 percentage points were taken by the industrial sector and 9 by the tertiary sector, to reach shares of 18% and 25% respectively in 2004.

5. Social consequences of structural changes

Kuznets (1972) had pointed out 25 years ago that underneath the innocuous looking macro-level percentage point shifts in workforce are micro-level pains of adjustment – rural-urban, inter-industrial, inter-occupational and inter-factory movements of workers – involving uprooting from a familiar social and production environment and adjustment to new socioeconomic surroundings in new jobs. Pains of adjustment also involve unemployment for varying intervals, obsolescence of technologies forcing reskilling or the prospect of permanent unemployability, and widening earning differentials that result from technology upgrades and emergence of demand-supply imbalances (a) between existing and newly required skills, (b) between locations of faster-growing sunrise and lagging sunset industries and (c) between locations of slower- and faster-growing units. It is important to note that labour market turbulence involving pains of adjustment resulting from structural shifts in workforce during economic growth is inherent in every growing dynamic economy, with or without globalisation, and cannot be escaped even in a closed economy. It is a necessary price of having economic growth that enables sustained improvements in living standards of the population that includes workers undergoing pains of adjustment. Globalisation merely adds to the turbulence in the labour markets while providing a potential boost to economic growth. Globalisation is not the only factor causing turbulence in labour markets, however. There are also internal factors contributing to this turbulence. These include, apart from technological changes, changes in the structure of domestic demand in response to a rise in per capita income and domestic infrastructural deficiencies in the transport and communications network that impede mobility in large continental countries like China and India. In the Indian context, religious, linguistic, cultural and caste-based diversities also contribute to social networking difficulties and hence act as barriers to labour mobility.

The pains of structural adjustment generate social tensions and human problems to which every government – democratic or authoritarian – has to be sensitive in order to maintain legitimacy to rule. Alleviation of these pains through social safety nets and other social institutional arrangements for socially acceptable sharing of pains of adjustment become important in this context.

6. Emerging labour market problems

In this section, we focus mostly on India for reasons of greater familiarity, although the nature of the problems discussed would be similar in China also.

Over the last five years, the Indian economy appears to have entered a higher growth path. GDP at (constant 1999–2000) factor cost has accelerated from an average annual rate of 6.3% from 1992–93 to 1999–2000 to 7.0% during the seven-year period from 2000–01 to 2006–07. This acceleration has been greater in the last five years (since 2003–04) with average GDP growth of 8.7% (quick estimate for 2006–07 and advance estimate for 2007–08) on the basis of a mutually reinforcing interaction between booming domestic and

external demand and liberalised domestic entrepreneurship. The acceleration in GDP has been supported by a sustained increase in gross domestic investment rates (at current prices) from 24.3% of GDP in 2000–01 to 35.3% in 2006–07 and in the gross domestic saving rate, which rose from 23.7% to 34.8% (quick estimate) over the same period.

While domestic demand continues to be dominant, a major change in the composition of external demand warrants discussion as it also reflects cost competitiveness. Exports of both goods and services have registered double digit growth over the last decade. Services export earnings as a ratio of current total (goods plus services) export earnings increased from an average of 18.0% during 1990–95 to 39.0% in 2006–07, the latest available fiscal year (April to March). Over the last decade, India's service exports have grown at a rate exceeding 20% annually and their share in world exports of services rose from 0.6% in 1995 to 2.2% in 2005 (RBI (2007), p 89) and further to 2.5% in 2006 (RBI (2008)). With its low cost of operations, high quality of service products, readily available technical manpower (so far), a favourable time zone difference and a general facility with the English language, newer and newer services are being sourced internationally from India. This is reflected in the fact that while the share of widely discussed software exports in total services export earnings has stagnated around 40%, that of non-software (new) miscellaneous services (which started being classified separately in 2004–05 in balance of payments statistics; see RBI (2008)) has rocketed from 21.3% to 38.2% in 2006–07 (RBI (2007), p 90). This indirectly corroborates the finding of Bosworth and Collins (2007) that TFPG contributed an overwhelming 72% to the 5.4% average annual growth in per worker productivity of services in India during 1993–2004. Export growth combined with the booming domestic economy has been generating increasing direct and indirect demand for high- and middle-level skills and is beginning to be reflected in labour shortages, especially in urban centres with high attrition and turnover rates. This is a manifestation mostly of demand-supply imbalances in terms of requirements and availability of educated and trained workers, but it is partly also accentuated by the barriers to mobility arising from inadequacies in transport and communication infrastructure and social networking difficulties arising from socio-cultural and linguistic diversities. This issue has several dimensions, which we discuss on the basis of the latest available NSS of employment and unemployment for 2004–05.

7. Rural-urban, gender and educational dimensions of the Indian workforce

We may mention that the rural-urban composition of the relevant categories of workforce is relevant in the context of demand-supply imbalances because rural-urban migration in search of jobs, though rising, is still not significant. The gender dimension is relevant because of the very low WPRs – lower among urban women, who are better educated, than among rural women – reported earlier (Section 5). In the absence of appropriate quantification of skills, we use education as a surrogate for the same.

The total Indian prime age (15 years and older) workforce was estimated to be 449 million in 2004–05 (see Table 1 below). Of this figure, 284 million (63%) were either illiterate or had four years or less of schooling (lines 1 and 2 in Table 1). Another 109 million (24%), two thirds of whom were based in rural locations, had between four and nine years of education (lines 3 and 4 in Table 1). Thus 87% of the workforce possessed education and skills just enough for absorption either in low-productivity primary activities or low-skilled secondary activities. Just 22% of the workforce was employed in the secondary sector in 2004–05, with only one-and-a-half times the average productivity per worker. Bosworth and Collins (2007) noted that per worker productivity in the secondary sector grew at a meagre annual rate of 3.1% during 1978–2004, of which only a little over one third was due to TFPG necessary for international competitiveness. In other words, technological dynamism was not as widespread in the secondary sector as in the tertiary sector.

The remaining 13% (56 million) of the total workforce had completed at least 10 years of schooling (lines 5 to 7 in Table 1), one third of whom were located in rural areas. This subset included 28 million workers having graduate level or higher education, of whom only 16% were females. In addition, about 7 million reported having some form of technical diploma or certificate, 50% of whom were located in rural areas.

Table 1

Estimated number of workers aged 15 years and older in India in 2004–05 by completed level of education

In millions

Description	Rural males	Rural females	Urban males	Urban females	Total workers
1. Not literate	72,721	80,091	11,741	8,799	173,352
2. Literate up to primary	63,254	22,194	20,345	4,789	110,582
3. Middle school	38,942	10,494	17,387	2,807	69,630
4. Secondary	20,009	4,342	13,444	1,722	39,517
5. Higher secondary	9,897	1,689	8,245	1,203	21,034
6. Diploma/certificate	2,152	603	3,316	802	6,873
7. Graduate and above	8,176	1,086	15,146	3,468	27,876
8. Total	215,151	120,499	89,624	23,590	448,864

Source: Calculated from the tables given in Sundaram (2007) based on the 61st Round of the National Sample Survey on Employment and Unemployment (July 2004 to June 2005).

Turning to new sources of demand for labour during the post-integration period, these have been rising at a rapid pace more in services than in manufacturing. High-value services in international demand for sourcing from India are mostly located in urban centres and require professional training and often pre-qualifying entrance tests in view of wide diversity in the quality of formal education in India. These opportunities have generally been beyond the reach of the overwhelmingly unskilled and less educated workforce.

Even the formal degree holders are afflicted by indifferent quality and often fail to clear the entrance tests for some high-value service sector jobs. India produces 441,000 technical graduates, nearly 2.5 million other graduates and more than 300,000 postgraduates every year. According to Mr Kiran Karnik, the former President of the National Association of Software and Service Companies (NASSCOM), one fifth of India's annual tertiary educational output is "world-class", one fifth "passable" and three fifths "lamentable" (*Economist* (2006)). Thus, a large proportion of the reported formally educated segment of the Indian population, though qualified on paper and large in numerical magnitude, has been found to be unemployable or earning much less than commensurate with their formal qualifications due to the unsatisfactory quality of their training. Diversion of the remaining limited talent to the mostly urban, fast-growing services sector has been generating shortages of high-level skills in the manufacturing sector. In addition, the booming domestic demand arising from the fast pace of growth has been adding to the urban shortages of middle-level skills. Shaped by socioeconomic and cultural factors, very low work participation rates even among educated and qualified women, though changing, further accentuate the scarcity of skilled and educated labour. Increased turnover and high attrition rates have, therefore, been a widely reported item in the Indian commercial and general newspapers.

The Indian case thus represents a paradox. Islands of acute scarcity of skilled and educated labour are reported in the urban areas in fast-growing service industries while the large bulk of the workforce – both rural and urban – is absorbed in low-productivity activities.

Comparable details for the Chinese workforce could not be easily traced. Reports indicate that the manufacturing sector has been experiencing labour shortages especially in the fastest-growing (eastern) coastal belt. From Bosworth and Collins (2007) we observe that despite phenomenal growth in exports of goods amounting to 18.6% annually between 1995 and 2004 and 11.0% annual growth in secondary GDP between 1993 and 2004, the share of the workforce in the secondary sector increased only marginally (by 1 percentage point, from 22% to 23%) between 1993 and 2004.[4] We also find from Brooks and Tao (2003) that employment in manufacturing declined from 98.0 million in 1997 to 80.8 million in 2001 and, more importantly, that in labour-intensive textiles, garments and leather and fur also declined from 11.1 million in 1997 to 8.4 million in 2001.[5] These facts seem to indicate that the 18.6% annual growth in exports of goods between 1995 and 2004 was driven more by raising per worker productivity and volume expansion of exports than by exploiting labour intensity.

Another piece of evidence is quoted from two urban household surveys for 1988 and 1995 (Li and Zax (no date)). It indicates that the proportion of the population having an education level equivalent to lower middle school and below declined between 1988 and 1995 from 51.2% to 36.1% for men and from 60.2% to 47.6% for women. Interestingly, the proportion of technical and professional workers increased from 15.5% to 21.7% for men and from 15.6% to 23.4% for women over the same period. (As late as 2004–05, the corresponding proportion in India was much lower, at 7.8% for urban male workers and 14.3% for urban female workers.) The Chinese shares must have risen higher by 2004 because there has been a massive increase in educational and training programmes as reported in a recent white paper on China's Employment Situation and Policies (see China Daily (2004) for details).

Another report mentions labour shortages being mostly confined to "advanced skilled workers" in the Pearl River delta industrial zone.[6] It appears that the demand for professional and technical workers resulting from 18.6% annual growth in exports of goods must have outstripped the available supply. Interestingly, quoting a private researcher, the same report also mentions (local) shortages of manual workers in the last two years in Guangdong factories "partly as a result of new agricultural policies that had raised farm incomes (thereby raising minimum supply price expectation) and partly due to low wages in Guangdong factories" as well as poor working conditions and low job security. It thus appears that demand even for manual labour has been rising more rapidly than supply in the fast-growing eastern belt due to rising minimum supply expectations despite relaxation of regulations on rural-urban migration.

8. Responses to imbalances and scarcities in India

The evidence presented in this section is anecdotal, based on newspaper reports rather than systematic research, as no nationwide scientific survey has been carried out so far. However, the available evidence is in line with what a priori reasoning would suggest.

---

4 See Tables 2 and 5 in Bosworth and Collins (2007).

5 See Tables 3 and 8 in Brooks and Tao (2003).

6 See McDonald (2004).

Historically, government administration and public sector enterprises (PSEs) had been the major source of secure and lifetime jobs in India, encouraged by the state policy of indiscriminate expansion of government activities in the commercial sphere producing non-public (or, in the terminology of public economics, "private") goods and services (Tendulkar and Bhavani (2007)). Many PSEs operating in commercial areas that had earlier enjoyed monopoly positions were subjected to competition from the private units after their entry was permitted as part of the systemic liberalisation in 1991. As a consequence, PSE employment has been on the decline in recent years. Some labour restructuring at the enterprise level in the private sector had been taking place despite overprotective labour legislation but in the aggregate, employment gains have dominated over the employment losses in the manufacturing sector.

A major response to the internationally traded services sector expansion in the recent period has been the emergence of half a dozen temporary staffing agencies supplying temporary white-collar workers to multinational corporations and other Indian companies. This new phenomenon is described as just-in-time, short-term flexi-hiring or simply temping (see *Business World* (2005)). It is a three-way institutionalised arrangement between employees looking for work, companies that do not want permanent staff on their rolls or have short-term projects and the intermediary staffing agency, which keeps temporary workers on its rolls and also maintains an employee database to supply multiple skills at short notice on a commission basis.

While this is new in India, such staffing agencies have been in existence in the advanced industrialised countries since the Second World War. Some international staffing companies set up shop in India around 2000 and have expanded through the acquisition of local startups. Some new Indian startups have emerged in the face of high rates of attrition of professional workers in major cities like Chennai, Bangalore, Delhi, Kolkata and Mumbai. The *Business World* report quoted above estimated that there were some 50,000 temporary workers on the payroll of the staffing agencies, including a top 2% earning more than INR 100 thousand (approx USD 2,500) per month; 3% in junior to mid-management positions (six to ten years' experience) earning between INR 30 and 50 thousand (approx USD 750–1,250) per month; 15% in engineering services, customer support and marketing with two to six years' experience and drawing between INR 10 and 30 thousand (approx USD 250–750) per month; and an overwhelming 80% at the bottom end of the scale, with one to two years' experience in sales, marketing, administration and other miscellaneous services and earning between INR 6 and 10 thousand (approx USD 150–250) per month. This was the case in the nascent stage two years back; the market for temporary workers must have expanded since then. The staffing agencies represent a more sophisticated and organised version of the labour contractor system in India that has been prevalent for supplying workers for agricultural operations in peak seasons in the agriculturally prosperous states and for other urban construction projects by bringing in temporary workers from other states. It is also worth mentioning that large armies of labourers hired from labour contractors in large-scale urban construction projects used to be a familiar sight. That is no longer seen and in its place, large-scale mechanised equipment handled by skilled workmen has become a common sight in all metropolitan construction projects.

A recent report (*Times of India* (2007)) mentions the findings from the *India Labour Report 2007*, a study commissioned by the staffing agency TeamLease Services based in Chennai in the southern state of Tamil Nadu. It noted that 90% of (presumably mostly urban, white-collar) jobs are skill-based and talked about the "skill deficit", poor-quality skills or education resulting in 58% of the country's graduate degree holders earning less than the lowest of the bottom 80% in the *Business World* estimate discussed above. It traced the unemployability of youth to failure in receiving quality education and lack of vocational and technical training at the middle and high school levels.

We now discuss two reports appearing side by side on the same page and by the same correspondent of a widely circulated commercial daily (*Economic Times* (2007b,c)).

The first report narrates the woes of educated rural youth turning to urban jobs in the face of the uneconomic and declining average size of agricultural holdings and the declining trend rate of agricultural growth in India. They are finding the going difficult because of limited holding capacity in the absence of social networking and an inability to speak English, a common handicap in rural schools. The report describes the pains of transition from farm to non-farm jobs, involving mental stress, new and often unanticipated challenges and great hope, expectations and aspirations. However, failure to adjust in unfamiliar urban surroundings and other unpleasant cultural shocks are making such transitions difficult and prolonged.

The second report discusses a welcome experiment that provides a possible pointer towards a remedy to the problem posed in the first report. Two years ago, the government of the southern agricultural state of Andhra Pradesh started the Employment Generation and Marketing Mission (EGMM) to address the employability problem among underprivileged rural youth. It is a public-private partnership venture started by the state government with the help of the World Bank, the central government and seed capital of INR 50 million (approx USD 1.25 million). It is a training-cum-placement programme wherein the training areas and course modules are identified and put together by private companies in accordance with their commercial requirements. Different vocational modules are being developed for rural youth having different levels of education ranging from illiterate, to those having completed 10 to 12 years of schooling, to those with graduate degrees and above. Teachers are being locally recruited and put through aggressive training programmes with the help of companies. Private companies are being encouraged to support the programme financially. In 2006, the EGMM trained 45,000 rural youth, 80% of whom went into a job on completion. Many large corporates, including multinationals, are collaborating in the programme – and not out of altruism; rather, they are finding that the programme is well tailored to their requirements and in the face of rising attrition rates among urban youth, it is giving them an opportunity to recruit better motivated and trained youth with much lower rates of attrition.

Most large companies are going to the reputed educational institutions before final examinations take place and recruiting fresh graduates who are not necessarily trained in the required jobs and following up with orientation and in-house training programmes tailored to their specific requirements. Several large companies are also maintaining “bench strength” in anticipation of demand and apprehending labour shortages. Other companies are establishing their offices in tier one and two cities and spreading their recruitment net wider. Still others are recruiting middle-aged ladies with grown-up children for training in an effort to reduce attrition rates and offering them flexible working hours. Flexible hours are also being offered to male workers.

We may also mention one more recent report appearing in the *Economic Times* of 13 November 2007 (*Economic Times* (2007d)). It notes that the average salaries of IT workers are growing at 12% annually, while the Indian rupee, too, has appreciated 12% since April 2007. Despite these adverse factors, an Indian software engineer’s average salary is one fifth of what his/her counterpart in the United States and Europe earns. The report claims that this is still a profitable proposition even though the salary differential is up in one year from the one tenth mentioned in *Economist* (2006). This survey cites many more anecdotes of labour scarcity as well as exploring the means adopted to overcome it.

Our discussion in this section is admittedly selective and subjective. The idea is to give a flavour of the emerging labour market problems arising out of scarcity of skilled labour in certain fast-growing service industries in metropolitan areas. While these are in the limelight of public discussions, we should not be oblivious to the fact that they apply only to a small part of the total Indian workforce.

9. Medium- to long-run issues in labour markets in India and China

It should be obvious that, with 57% of the workforce in India and 47% in China in 2004 being engaged in the primary sector, where the average productivity per worker was estimated to be one fifth that in the non-agricultural sector, labour markets in both these countries would continue to be characterised by unlimited labour supplies and pains of transition from traditional agricultural to modern non-agricultural activities, as the currently advanced countries historically were during their industrialisation phase. The transition to the industrialisation of the workforce has been prolonged in both countries, partly by the past demographic pressures on land and partly by very slow growth of GDP (around 3.5% annually for three decades after their respective independence). The result has been the emergence of a large and persistent informal or unorganised segment of the workforce since the 1978 reforms in China and from an earlier period in India due to the preferential state policies towards small-scale and traditional industries.

Both countries indiscriminately expanded the ambit of state-owned enterprises (SOEs) as a matter of state policy for three decades starting in the 1950s. In India this was done to discriminate against large private capitalist enterprises while in China, it was part of the transition to socialism. China has successfully carried out the transition from the pre-reform system of direct allocation of jobs and administrative control of wages to a gradual evolution of the labour market. In India, the labour market in the large-scale private organised factories and public sector enterprises continues to be regulated by overprotective legislation that introduced formal inflexibility in hiring of labour. It may be mentioned, however, that faster growth of private factory manufacturing output during the post-1991 reform period has taken place on the basis of informalisation of flexibility in the labour markets at the factory level under which trade unions at the national level keep opposing any dilution of the overprotective labour legislation while workers at the factory level have come to accept the fact of flexibility in hiring, including layoffs and retrenchment (Tendulkar and Bhavani (2007)).

In the 1990s, China appears to have successfully implemented the downsizing of SOEs as well as public administration. As many as 8.9 million workers are reported to have been laid off in 1996, 5.74 million of which were from SOEs (*Chinese Labour Statistics Yearbook* (1997) quoted in Li and Zax (no date)). A three-stage social security system was introduced for the laid off workers with an in-built disincentive of a declining magnitude of compensation for workers remaining without an alternative job for long intervals. Under this system, until the laid off worker finds alternative employment, he/she continues to be linked with the SOE for three years on the basic salary, unemployment compensation (lower than basic salary) for the next two years and (still lower) minimum income assistance thereafter. In India, there has been no downsizing of public administration and very gradual downsizing of public sector enterprises forced by having to face competition from domestic and international private sector units in the same operations.

One adjustment that China has to undertake but not India relates to the accession to the World Trade Organization that has been partly driving labour market reforms. It was estimated that this could involve job losses – some 13 million in rural areas, especially those on marginal lands without much chance of moving to higher value-added crops and 1.5 million in urban areas, mainly in automotive and machinery industries (Li and Zhai (1999) quoted in Brooks and Tao (2003)). The same paper also mentioned the IMF staff estimate of some slowdown in GDP growth in the short run due to restructuring, but higher growth in the medium run.

The final interesting question relates to the possibility of mutual competition in the world markets between the two Asian giants with unlimited labour supplies. So far China has scored over India in manufacturing while India has established a competitive advantage over China in internationally traded technical and professional services. Both countries have been making efforts to establish themselves against each other in the world markets in their current areas of disadvantage. This process is clearly going to be driven by per worker

productivity. Bosworth and Collins (2007) provide some broad pointers in this regard. They estimate that Chinese labour productivity in each of the major three sectors was 70% that in India in 1978. By 2004, the level of Chinese output per worker had risen to 110% in services, 130% in the primary sector and 220% in the secondary sector of the Indian levels of productivity per worker. Noticeably, more than double the level of productivity per worker in the secondary sector in China particularly might translate into higher real labour costs and erode China's labour cost advantage in manufacturing vis-à-vis India and other developing countries. However, China has been much better placed than India in respect of physical infrastructure, labour market flexibility and political capacity to take quick decisions and assure effective implementation. In macroeconomic management, too, China has managed to successfully keep its exchange rate undervalued despite running current and capital account surpluses and accumulating foreign exchange reserves. In comparison, India has to manage the impossible trinity of interest rate, foreign exchange rate and inflation rate in the face of mounting foreign exchange reserves and an appreciating exchange rate.

10. Concluding remarks

Finally, we briefly turn to the thematic poser suggested by the organisers of the conference in the title of the paper. Are labour markets in newly integrating economies different?

Labour markets in newly integrating economies like India and China are clearly different from those in the advanced industrialised countries at least in two obvious respects. First, as noted earlier, the advanced countries have successfully completed the transition from agricultural to industrial workforces and, unlike India and China, they are not characterised by unlimited labour supplies. In the advanced countries, labour supply is the primary constraint on economic growth, which has to be driven by total factor productivity raising technological changes. With unlimited labour supplies, inter-sectoral shifts from agricultural to non-agricultural sectors provide an independent source of growth in addition to technological changes. Second, labour markets are unified in the advanced countries with much narrower differences in inter-sectoral marginal productivities, whereas in countries such as India and China, the labour markets in the modern and traditional sectors are loosely integrated, with the traditional sector providing the store of unlimited labour supplies (albeit after getting equipped with requisite human capital).

Are the labour markets in India and China different from each other? Despite the common analytical feature of unlimited labour supplies, Indian and Chinese labour markets differ in at least two respects. First, India will but China will not be experiencing the demographic dividend of a rising share of working age population. The challenge facing India more than China is how fast society and polity can manage to upgrade the skill and education base of the growing working age population and raise their work participation while maintaining the momentum of present rapid economic growth so as to reap the benefits of the demographic dividend. This realisation is reflected in the more than fivefold increase in the proposed outlay on higher education in the government's Eleventh Five Year Plan (2007–12) from USD 3,278 billion in the earlier Tenth Five Year Plan to USD 18,776 billion, which means that 3.5% of the total proposed plan outlay has been allocated to higher education alone. The share of total outlay on education (school education and literacy plus higher education) has been increased from 6.6% of total plan outlay in the Tenth Five Year Plan to 11.1% in the Eleventh Five Year Plan (Planning Commission (2007)). Second, the two countries also differ with respect to their degree of labour market flexibility. This follows from the fact that, shaped by socio-political constraints, the formal as well as informal rules of the game and their enforcement characteristics governing minimum supply price perceptions and labour market participation practices differ between China and India and hence, the speed of responses to incentives and disincentives implicit in the incentive structure embedded in the institutional matrices in the two countries, even though the responses of individuals would be motivated

by the universal self-interest-based behaviour in both countries. These differences enable us to understand Robert Solow's (1990) characterisation of the labour market as a social institution that evolves in a unique fashion in each country. A detailed examination of these differences is, however, outside the scope of the present paper.

References

Bosworth, B and S M Collins (2007): "Accounting for growth: comparing India and China", *National Bureau of Economic Research Working Papers*, no 12943, February, p 24 (http://www.nber.org/papers/w12943).

Brooks, R and R Tao (2003): "China's labor market performance and challenges", *IMF Working Paper* no WP/03/210, International Monetary Fund, Washington DC, November.

Business World (2005): "The rise and rise of the temporary job", vol 24, issue 34, 11–17 January, pp 32–44.

China Daily (2004): "China working to improve quality of workforce (Xinhua)", updated www.chinadaily.com.cn/english/doc/2004-04/26/content_326368.htm.

Economic Times (2007a): "India moves up on TDI list", New Delhi, 7 November, p 7.

——— (2007b): "Farmers look beyond farm for jobs", New Delhi, 7 November, p 5.

——— (2007c): "Jobs for rural youth", New Delhi, 7 November, p 5.

——— (2007d): "Surging rupee: No impact on IT salaries in the short run", report by Ranganathan, C and NS Ramnath, Times News Network, 24 September, http://economictimes.indiatimes.com/Infotech/ITeS/Surging_rupee_No_Impact_on_IT_salaries_in_short_run

Economist (2006): "A survey of business in India", 3 June, p 18.

Kuznets, S (1972): "Innovations and adjustments in economic growth", *The Swedish Journal of Economics*, vol 74, no 4, December, pp 431–51.

Lewis, W A (1954): "Economic Development with Unlimited Supplies of Labour", *Manchester School of Economic and Social Studies*, vol 22, pp 139–91.

Li, H and J Zax (no date): "Economic Transition and Labour Market in China", e-mail contact: Jeffrey.zax@colorado.edu

McDonald, H (2004): "China's workforce shunning poorly paid factory jobs", 26 August, www.smh.com.au.articles/2004/08/25/1093246623753.html.

North, D C (1990): *Institutions, institutional change and economic performance*, Cambridge University Press, UK.

Office of Registrar General (2006): "Population projections for India and states, 2001–26", Report of the Technical Group on Population Projections constituted by the National Commission on Population, New Delhi, May.

Planning Commission (2007): *Eleventh Five Year Plan (2007–12)*, volume I, "Inclusive Growth", 54th NDC Meeting, government of India, New Delhi, December, mimeo.

Reserve Bank of India (2007): *Annual Report*, 2006–07, Bombay.

——— (2008): "Invisibles in India's balance of payments: an analysis of trade in services, remittances and income", *Reserve Bank of India Bulletin*, February, pp 261–302.

Solow, R M (1990): *The labour market as a social institution*, Basil Blackwell, Cambridge, UK.

Sundaram, K (2007): “Employment and poverty in India, 2000–2005”, *Economic and Political Weekly*, vol XLIII, no 30, July, pp 3121–31.

Tendulkar, S D and T A Bhavani (2007): *Understanding reforms, post-1991 India*, Oxford University Press, New Delhi.

Times of India (2007): “Indian youth are simply ‘unemployable’: Report”, 8 November, p 23.

United Nations (2007): “World Population Prospects: The 2006 Revision”, Department of Economic and Social Affairs, Population Division, New York.