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Contract Labour (Regulation and Abolition) Act 1970 and Labour Market Flexibility: An Exploratory Assessment of Contract Labour use in India's Formal Manufacturing

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Contract Labour (Regulation and Abolition) Act 1970 and Labour Market Flexibility: An Exploratory Assessment of Contract Labour use in India's Formal Manufacturing

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Abstract

One particularly significant piece of labour legislation in India is the Contract Labour (Regulation and Abolition) Act, 1970 (CLA,1970), which regulates labour hired by firms through the offices of a labour contractor - such labour being referred to as 'contract' labour in India. This paper seeks to examine this Act and its implication for manufacturing employment in India. While empirical evidence seems to indicate the presence of large number of 'contract' workers in the Indian manufacturing sector across a spectrum of industries, this increasing contractualisation of the workforce has not been typically discussed as a pointed labour regulation issue. It has been widely argued that Indian labour law imposes institutional rigidities inhibiting employment expansion; but note needs to be taken of a ruling by the Supreme Court in 2001 which interpreted the CLA, 1970 in the case of Steel Authority of India v. National Union Water-Front Workers. This judicial interpretation has led to increased flexibility in the Indian labour market enabling firms to employ 'contract' workers widely, often employing them in jobs where they work alongside permanent workers. Against this backdrop, we undertake a preliminary empirical exercise in an attempt to document the increase in engagement of 'contract' workers and to dissect the data to see patterns in the use of 'contract' workers in formal manufacturing. These empirical patterns help us generate hypotheses for further work on the normative consequences of large scale use of 'contract' labour – the use of 'contract' workers no doubt brings in flexibility in labour usage and can be judged as a beneficial development for employers, however issues of investment in skills remains a hindrance in enhancing labour as well as overall welfare.

JEL classification: *J08, J21, J50, J53.*

Key words: *Labour regulations, flexibility, contract workers, manufacturing.*

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Contract Labour (Regulation and Abolition) Act 1970 and Labour Market Flexibility: An Exploratory Assessment of Contract Labour use in India's Formal Manufacturing

Deb Kusum Das[*] , Homagni Choudhury+ and Jaivir Singh^

1. Introduction

Despite widespread reforms including trade policy reforms and industrial de-licensing, particularly aimed at making the manufacturing sector in India more efficient in terms of productivity, output and job creation, the sector failed to take off like that in China and other East Asian economies. The share of manufacturing in aggregate GDP remained more or less constant over the last two decades at about 16 per cent while the economy's overall growth over the period has been relatively strong with average growth of about 7 per cent per annum. While this pattern reflects a complex array of phenomena, a key issue that often emerges in policy discussions is the lack of labour market reforms (see, for example, Besley and Burgess, 2004; Gordon and Gupta, 2004; Kochhar et al, 2006; Panagariya, 2006; Gupta et al, 2009, among others). There are concerns among policy makers and academics alike that the collective institutions of restrictive labour legislations, trade unions and wage setting in India have created rigidities and inflexibilities in the labour market, which in turn has hampered output, investment and employment expansion, particularly in the formal manufacturing sector.

Little systematic empirical work has examined the effects of collective institutions in the labour market on manufacturing performance. The focus of most studies has been to examine the effects of trade liberalisation and industrial deregulation on manufacturing performance in India and majority of these studies suggest that the unimpressive performance of the manufacturing sector in the post-reforms period may be reversed by carrying out complementary reforms including labour market reforms. The little empirical evidence available on labour market rigidities in India is quite mixed and inconclusive. The empirical studies examining effects of restrictive labour market institutions on labour market outcomes and manufacturing performance have focused almost exclusively on the Industrial Disputes Act (IDA), 1947 despite the existence of several labour laws. Exploiting central and state level amendments to the IDA over time, the unanimous verdict that these studies draw is that pro-worker amendments to labour legislation have caused rigidities and inflexibilities in the

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labour market thus impairing industrial performance thus emphasising the need for *de jure* labour market reforms. However, contrasting evidence on flexibility of labour markets also exists which emphasise that *de facto* reforms in the last two decades have resulted in the formal private sector sometimes being successful in evading the legal requirements of protective labour legislations and restructuring their technological and managerial practices (Mathur, 1991; Shyam Sundar, 2005; Anant et al, 2006; Sharma, 2006, among others). Given this mixed empirical evidence, it is imperative to carry out a systematic study, which aims to understand how flexible is the Indian labour market? At the end of the day, whether India's collective institutions of protective labour legislation, trade unions, and wage setting system have created significant rigidities and inflexibilities in labour markets is an empirical issue, but we first need to assess if there is any labour market flexibility at all contrary to popular perception - this is one of the key aims of this paper.

In the backdrop of the above discussion, it is important to point out that there is emerging evidence that employers in formal manufacturing in India circumvent the problems posed by the restrictive institutions (particularly, the IDA) by employing contract workers who are outside the purview of the major labour laws (Kapoor, 2014, Chaurey, 2015). Instead, contract workers and their employment are regulated by the provisions of the Contract Labour Act (CLA) 1970. The Act, which was originally intended to protect the interests and welfare of contract workers, is now used by employers to circumvent other restrictive labour laws. The CLA and particularly recent judicial interpretations of the Act in the 2000s in favour of principal employers has actually led to *de facto* reforms making the labour market more flexible contrary to popular perception. However, to our knowledge, there has been no systematic attempt to assess the effects of the CLA on manufacturing performance. The literature has been more obsessed in examining the effects of the Industrial Disputes Act (IDA), 1947 on manufacturing performance. Our view is that the strict hire and fire provisions under the IDA are increasingly circumvented by the use of contract workers and hence it becomes significant to explore the implications of the CLA. In this paper, we therefore undertake an exploratory analysis of the implications of the CLA on labour market flexibility by empirically investigating the effect of recent pro-employer judicial interpretations of the legislative provisions of the CLA on use and engagement of contract workers in formal manufacturing. This allows us to identify key research questions and hypotheses from the patterns of contract worker use that we discern at both aggregated and dis-aggregated levels by industry and across states over the time period 2000-01 to 2011-12 in this paper, which we intend to follow up and investigate in our future work. As such, the aims of the current paper are twofold. First the paper aims to bring out the fact that the judiciary has progressively interpreted the CLA with a pro-employer orientation. Second the paper aims to assess empirically whether there is any evidence of increase labour market flexibility and contractualisation of the workforce following the judicial interpretations of the CLA.

The rest of the paper is structured as follows. In section 2, we present an overview of the collective institutions governing the labour market in formal manufacturing in India, which are widely argued to be restrictive, resulting in rigidities and inflexibilities in the labour

market. Section 3 then assesses the CLA and argues that judicial interpretations of the law have enabled employers to circumvent the problems caused by the restrictive labour laws. Section 4 empirically assesses the trends in the use of contract labour in the last decade highlighting how regular workers have been substituted with contract workers over the past decade and the economic issues such a trend poses to the manufacturing sector. Section 5 summarises and draws some conclusions on the way forward for labour market reforms in India.

2. Labour regulations in India and the current debate on labour market reforms

In this section, we outline the content and complexity of existing labour regulations in India and note that the literature has often pointed towards the perverse effects that this regime has had on manufacturing performance – leading us to the ongoing debate on the need for labour market reforms in India. This section therefore spells out the background to the issues addressed in this paper, setting the context for the analysis in the following sections. We first present the nature and scope of the existing labour legislations in India followed by a discussion of the collective institutions that govern the labour market. We then outline the rigidities that such protective labour institutions produce, invoking some of the analytical arguments made in the literature as well as the discussion surrounding the empirical evidence on these apparent rigidities. We then conclude this section with where we stand and what is the way forward.

2.1 Nature and scope of labour laws

Labour laws in India essentially cover only those workers who work in the formal sector. While, on paper, there are many laws regulating conditions of work in the informal (which includes the agriculture sector) sector also, in practice, it is difficult to administer and enforce them due to the decentralised nature and geographic dispersion of the activities in the informal sector. Further, even where there is scope for laws to come into play, enforcement is problematic and difficult given that employment contracts are informal in nature and workers, who work in this sector, are largely illiterate and are unaware of their rights. As such, the informal sector along with the agricultural sector, which account for the bulk of employment in the country, has by and large remained outside the scope of laws and institutions that regulate the labour market. On the other hand, the formal sector, which enjoys the labour laws and is under the purview of the labour market institutions, employs only a small proportion of the workforce in the economy. The formal sector broadly consists of the public sector, the private corporate sector, agriculture plantation, the factory sector spanning manufacturing, electricity, gas and water, and repair services, and includes all workers in regular wage employment in establishments registered under the Factories Act, 1948, which relates to units which employ 10 or more workers with the aid of power and units which employ 20 or more workers without the aid of power. (Nagaraj, 2002) The formal sector constitutes less than a tenth of the economy's workforce: in 1977-78 it employed 8.7 per cent of the total workers in the economy, which marginally rose to 8.8 per cent in 1987-88 and then marginally fell to 8.1 per cent in 1993-94 (Ghose, 1999), which further fell to 7.02 per cent in in 1999-00 (Mitra, 2008).

Turning to legislative authority over labour issues in India, both the Central government as well as the individual state governments exercise legislative powers so that the latter have the power to amend central legislations or to introduce subsidiary legislations. In fact the state governments are responsible for the enforcement of most of the labour regulations, even those enacted by the central government. As such there may be considerable variation in labour regulations and/or their enforcement across different states in India. (Hasan *et al*, 2007) In fact Besley and Burgess (2004) identified 16 different states in India as *pro-worker*, *pro-employer* or *neutral* based on their labour law amendments over the period 1958-1992. As such firms located in different states in India face different and often confused regulatory environments due to such entitlement of both central and state governments to legislate on labour issues.

2.2 Collective institutions: Legislations, Trade Unions and Wage-Setting

While there are as many as 165 labour legislations, including 47 central acts (Debroy, 1997), the centrepieces of labour market legislation are the Factories Act of 1948, the Industrial Employment (Standing Orders) Act of 1946, the Industrial Disputes Act (IDA) of 1947, and the Trade Union Act (TUA) of 1926.

The Factories Act 1948 is one of the fundamental labour laws and is mandated for all factories with the objective to regulate working conditions in factories. It ensures minimum standards of safety, health and welfare conditions of factory workers and regulates the working hours, leave, holiday, overtime and employment of children, women and young people in factories. The equivalent to the Factories Act in the informal sector is the Shops and Establishment Act – every state has its own Act, which is enforced by the Municipal Corporations and is aimed at regulating the working conditions of workers in the informal sector, including shops, local retail stores, corner stores, grocery stores and other commercial establishments that do not fall under the Factories Act.

The Industrial Employment (Standing Orders) Act (IEA) of 1946 and the Industrial Disputes Act (IDA) of 1947 form the basis for the regulation of employment security in the formal sector in India. The IEA stipulates the rights and obligations of employees and employers relating to the classification of employees, shift work, hours of work, entry and exit, attendance, stoppage of work, leave and holidays, penalties for misconduct, suspension or removal, retirement, grievances and redressal procedures, among others. The rules and procedures laid out by the IEA are binding on all industrial establishments employing 100 or more workers. In inception the IEA aimed to: (1) regulate job security by laying down the classification of employee categories, (2) regulate income security by laying down provisions on computation of payments for hours worked and deductions in cases of leave, and (3) regulate employment security by stipulating the restrictions on penalties and punitive measures leading to terminations and prescribing guidelines on disciplinary procedures in cases on misconduct (Government of India, 1946, 1946b). On the other hand, the objective of the IDA was to govern the relationship between the workers and the employers and thus regulate industrial and labour management relations. The IDA, when it was first passed in 1947, applied to all establishments employing 50 or more workers in the formal sector. The

IDA conferred the power on the state to intervene in labour management issues arbiter giving rise to a tripartite dispute settlement framework, where the state assumes the role of an arbitrator in lieu of a bargained relationship between the workers and the employers (Government of India, 1947). Relating to retrenchment and layoffs, provisions in the original IDA allowed employers to retrench workers provided they followed the last hired/first fired rule in drawing up the list of workers to be retrenched, gave a month's notice or pay in lieu of notice, aid half a month's wages per year of service and informed the government. However, following an amendment in 1976, now infamous chapter VB was added to the IDA, which stipulated that it is mandatory for firms employing more than 300 workers to seek prior consent of the state government before any retrenchment or closure of a part of the enterprise. Since the government's position on disputes were not free of political considerations and the state itself being a dominant employer in the formal sector, it was hardly a neutral participant and hence enterprises could never obtain the permission to retrench or lay off workers. In 1982, the government further expanded the scope of the law mandated by chapter V.B by requiring all firms with 100 or more workers to seek the permission of the relevant state body before any retrenchment. While an exception for retrenchment resulting from natural disasters and power shortages was in place, the penalty for retrenchment or closure without government permission included a fine and a prison sentence for the employer (D'Souza, 2008). It has been noted by some that such populist amendments added fuel to the already burning problem of employment inflexibility since government approval to lay off workers was seldom forthcoming (Panagariya, 2007).

Regulation of trade union activity was carried out by the provisions of the Trade Union Act (TUA) of 1926, which laid down the rules and legal framework for the registration and operation of trade unions. The act allowed any seven workers to register their trade union to take part in the collective bargaining negotiations (Government of India, 1926). During the colonial period, the trade union movement became an important platform for the larger independence movement in India. In fact the movement remained largely under the influence of the Indian National Congress – the political organisation that led the freedom struggle in India. At the time of independence in 1947, growing ideological differences in the Indian political scenario in general and within the Indian National Congress, in particular, resulted in fragmentation of the trade union movement. Moreover, as there was no provision for union recognition in the TUA, there was multiplicity of unions with outsiders playing a prominent role. In most cases, the outsiders controlling the unions have political motives as well as influences and are not really concerned about the genuine interests of the organisation and workers- they may not be working for worker interests and instead pursue their own personal and political agenda. By the end of the 1980s, practically every political party in India had its trade union wing. In 1989, the government of India, following an exercise by the labour ministry to prepare a register of existing trade unions, listed eight major trade union federations: Indian National Trade Union Congress (INTUC), All India Trade Union Congress (AITUC), Centre of Indian Trade Unions (CITU), Hind Mazdoor Sabha (HMS), Bharatiya Mazdoor Sabha (BMS), Hind Mazdoor Kamgar Party (HMKP), United Trade Union Congress (UTUC), United Trade Union Congress Lenin Sarani (UTUCLS) and National Labour Organisation (NLO) besides a number of small independent unions (Datta

Chaudhuri, 1996). In 1996, India had 58,805 registered unions, the vast majority of which were small unions that depended on their affiliates at national labour centres to bargain on their behalf (Dutt, 2003). An immediate effect of the existence of a large number of trade unions was inter-union rivalry manifesting itself in labour militancy. Datta Chaudhuri (1996) points out that 30 per cent of industrial disputes in India, between 1950 and 1975, could be attributed to the problems of union recognition and inter-union rivalry. Further, there is no government provision in the TUA or the IDA or other legislations for procedures to determine the representative union which would normally act as a single bargaining unit. With employers under no legal obligation to bargain with unions, this means that there are no built-in incentives for either party to engage in collective bargaining (Dutt, 2003).[1]

In addition to the above discussed labour legislations, there is a prevalent wage setting system in India, whereby the Wage Boards and Pay Commissions generally sets wages in the public sector, which in turn sets the benchmark for private sector wages (Dutta, 2007). Wages are often set at above market clearing levels despite being a surplus labour in the economy. The downward pressure on wages is mitigated by labour market imperfections such as prevalence of monoposonistic trade unions and minimum wages guaranteed by law, which particularly applies to the public sector, where government employees are largely unionised, assured of life time employment and face very little risk of being fired (Dutt, 2003).

2.3 Labour market issues: rigidities and inflexibilities and empirical implications of the institutional context

The formulation of such complex labour laws and legislation, as discussed in the preceding section, was obviously aimed at protecting labour by regulating working conditions, ensuring job security, managing industrial relations and encouraging collective bargaining. The fundamental idea behind social policy concerning labour and employment in India, particularly during the first three decades of planning, was not to treat labour as a mere resource for development but rather as a significant partner and beneficiary of social and economic development, an orientation, which had its roots in the independence movement prior to 1947. In fact several legislations to protect labour were enacted prior to independence, which were further strengthened in independent India through comprehensive and detailed legislation governing industrial relations, as described above. This point is aptly captured in the words of Sharma (2006): "The basic idea behind all these protective measures adopted for labour was that the workforce was relatively weaker partner vis-à-vis capital in the production process and that in a poor country like India, it was desirable to safeguard workers to promote both social justice and an appropriate industrial and productive climate."

In recent times, policy analysts, industry associations and mainstream media, both within and outside India have argued that India's archaic labour laws are causing rigidities and inflexibility in the labour market and there are increasing calls to deregulation of the labour

[1] For a more up to date discussion on industrial disputes initiated by trade unions and other aspects of industrial conflict, see Shyam Sundar (2015).

market.[2] The basic idea behind deregulation is that free market outcomes are efficient and *pareto* optimal. The free play of market forces results in employment of resources at market-clearing prices, which in turn lead to both efficiency (full employment) and equity (prices are equal to marginal product). Intervention by the state results in deviations from full employment of all resources. In the case of labour markets, trade unions and protective labour legislation are argued to be market-distorting agents, which hinder the free operation of market forces to ensure full employment of labour and wages equalling the market clearing prices. Interference by collective institutions like labour laws and trade unions in the market process increase transaction costs which in turn discourage investment, thereby resulting in unemployment, inequality in wages and hence welfare loss. These institutional interventions in the name of equity and social justice superimpose terms set above the market-clearing prices. Consequently markets do not clear and wages become sticky. These institutions not only tamper with the 'price' and the essential market signals that enable efficient functioning of the market, but also affect the freedom of employers to adjust the quantity of labour employed in the production process. Labour laws thus cause inflexibility in entry and exit from the labour market (non-adjustment of labour market) resulting in segmentation of the labour market.

Within the labour literature on India, there are concerns that the collective institutions like protective labour laws, trade unions, wage setting and labour redundancy (as discussed in the preceding section) have created rigidities and inflexibilities in the India labour market (see, for example, Fallon and Lucas, 1993; Ghose, 1995; Datta Chaudhari, 1996; Dutta Roy, 2004; Besley and Burgess, 2004; Panagriya, 2007; among others). Rigidities also include rigidities in deployment of human resources, in work practices and in wages.

Of the various rigidities, wage rigidity is often highlighted as a serious hindrance in the non-adjustment of the labour market even in the face of substantial trade liberalisation and industrial de-licensing. This is because wages are often set at above market clearing levels, particularly in the formal sector despite the fact that India is a labour surplus country. The downward pressure on wages is mitigated by the presence of imperfections in the labour market caused by collective institutions like trade unions, wage setting and minimum wages guaranteed by law. These conditions apply especially to the public sector, where government employees are mostly unionised, assured of lifetime employment with lucrative pension schemes, and face very little risk of being fired – as outlined in the preceding section, wages are set in the public sector by the Wage Board and Pay Commissions. The powerful trade unions in the public sector have a heavy political presence and lobby for above market clearing wages in the sector. This in turn sets a benchmark for the private sector of the formal segment, where wages are also set above market clearing rates depending on the relative power of the unions and relative size of the firms and industries they operate in. While clearly there is evidence of wage inflexibility due to the presence of unions and minimum wages law in the formal private sector (see, Deshpande et al, 2004, and Sharma, 2006), however statutory minimum wages have been largely ineffective in influencing wages in the informal

[2] The 1990s have seen some reforms in the labour market although the scope and pace of such reforms have been quite slow. We discuss some of these reforms in more details in section 2.5.

sector due to weak enforcement, irregular revisions, lack of proper indexation to cost of living and absence of trade unions (Dutt, 2003).

Similarly, another serious rigidity in the labour markets in India, particularly in the formal sector, is the virtual impossibility for employers to retrench workers or to adjust the quantity of labour employed in the production process. This is attributed to the presence of strict and protective hiring/firing laws as well as the presence of trade unions. Industrial disputes arising from dismissals, retrenchment or disciplinary actions against individual workers are classified as due to "non-economic causes" in contrast to disputes on wages, payments and bonuses, which are classified as due to "economic causes". The percentage of disputes arising out of such "non-economic causes" varied from 49 to 63.8 per cent between 1951 and 1975. Trade Unions fight bitterly even against the imposition of fines and suspensions, because these could go into the building up of a dossier against a worker and eventually be used in a tribunal to get the worker dismissed (Datta Chaudhari, 1996). Ramaswamy (1984) points out that many union leaders are of the view that there is practically no offence that merits dismissal. A part of the reason for this union condonation of misconduct may be in the interest of the worker but a far more important reason is fear of rival union propaganda. A union, which accepts punishment to a defaulter, is certain to be dubbed a management stooge (Ramaswamy, 1984).

In the preceding section, we have already highlighted the nature and concerns with the IEA and the IDA, which are legislations aimed to provide job security to workers. The implementation of the provisions of the IDA is the responsibility of the labour departments of the Central and State governments. This department decides if a particular dispute merits its attention, and if it indeed sees the merit, they set in motion a process of conciliation. In the event of failure of such a process, the conciliator is required under Section 12 (4) of the IDA to submit a general report outlining the nature of the dispute and a confidential report conveying its recommendations regarding adjudication to the government. If both the parties to the dispute fail to arrive at an agreement on voluntary arbitration, then the Ministry of Labour refers the dispute to the Labour Judiciary for adjudication. Trade Unions and workers prefer the adjudication process because they have traditionally perceived that the labour ministries and the Labour judiciary, as well as the Appellate Courts will be sympathetic to the cause of the workers (Mehta, 1994).

These legislations, particularly the IDA, which confer an important role to the state in labour-management relations, have been amended over time (1976 and 1982) to strengthen hiring/firing laws as discussed in the previous section, due to pressures from Trade Unions who hold the view that with the active involvement of the state and political process, they would be on a stronger bargaining position vis-à-vis their employers. These amendments required firms employing more than 100 workers to seek government permission for lay-offs, retrenchment and closures paving the way to strengthen "political intervention" in industrial disputes. Needless to say, such permissions were seldom given. According to Fallon and Lucas (1991), employment in the formal manufacturing would have been 17.5 per cent higher in the absence of job security regulations.

There are other rigidities that exist in the Indian labour market. For example, India lacks a universal unemployment insurance scheme. As such family and traditional institutions are the main providers of social support. This in turn contributes to further rigidities in the labour markets, as attempts to lay off workers are strongly opposed (Dutt, 2003). While employer liability legislation requires compensation on termination of employment, only a small portion of the working population in the formal sector is effectively covered. In the absence of state-sponsored social security and scarcity of "good jobs", employment security in the formal segment is of obvious value. Thus the on-going labour market issue should not be just about removing rigidities but also simultaneously ensuring the economic and social security of the workers.

While we have attempted to carry out a modest review and a comprehensive assessment of the various labour market rigidities and inflexibilities caused by collective institutions, a detailed quantitative analysis of the effects of labour market legislations and labour laws in India is beyond the scope of this study. However, it is important to highlight that while some labour market reforms have been carried out in the 1990s (which we outline in the following section), the opinions on the pace and further need of labour market reforms in India remain highly polarised. On one hand, *pro*-reforms policy analysts like Ghose (1995, 1999), Datta Chaudhuri (1996), Besley and Burgess (2004) and Panagariya (2007), among others believe that the numerous labour laws in India along with the wage setting system and labour redundancy have created rigidities in the labour market resulting in substitution of capital for labour, preference of casual labour over regular labour and rise in subcontracting of work to smaller enterprises which are outside the purview of labour legislation or where enforcement is not possible. There is particular evidence of such trends in various industries (see, for example, Goswami, 1990; Sharma, 2006, among others). All these studies suggest that such rigidities and inflexibilities in the labour market caused by the collective institutions constraint the effective redeployment of labour during the process of adjustment to changes in demand and technology, and more importantly, act as a disincentive towards future employment creation (Dutt, 2003).

On the other hand, there are observers like Nagaraj (2002), Dutta (2003) and Ramaswamy (2003), among others who offer counterarguments to the above view by highlighting that effects of labour regulations in India were not immensely felt either due to poor regulatory compliance and spotty enforcement or circumvented thus rendering them ineffective. There is some indirect evidence to suggest that the formal private sector has sometimes been successful in evading the legal requirements of protective labour legislations and restructure their technological and managerial practices (Mathur, 1991). In addition to this, Besley and Burgess (2004) point out that firms located in different states in India face different and often confused regulatory environments due to the entitlement of both central and state governments to legislate on labour issues.

The little empirical evidence available on labour market rigidities is quite mixed. For example, Fallon and Lucas (1993) reports an adverse impact of labour market legislation, especially the IDA, on employment growth between 1960 and 1982, while on the other hand,

Dutta Roy (2004) found evidence of rigidities in labour adjustment to shocks attributable to industry specific characteristics and not due to imposition of job security regulations, for the period 1960-1995. Furthermore, Besley and Burgess (2004) investigated whether the industrial relations climate in 16 Indian states had any effects on the pattern of manufacturing growth in the period 1958-92 and found that states with *pro-worker* policy environments were associated with lower investment, employment, productivity and output in registered manufacturing.[3] At the end of the day, whether India's collective institutions of protective labour legislation, trade unions, wage setting system and labour redundancy have created significant rigidities in labour markets is an empirical issue.

2.4 Labour market liberalisation

As far as actual reforms in the labour market are concerned, they have not picked up momentum despite the extensive and radical trade and industrial policy reforms in the 1990s. While the structural adjustment program initiated in 1991 emphasised bringing about a greater flexibility in labour laws, required changes in labour laws were not implemented due to the lack of political consensus. A handful of changes have been introduced in recent years. For instance, a voluntary retirement scheme (VRS) under the national renewal fund (NRF) was set up by the government in the first half of the 1990s as part of its attempt to restructure unprofitable public sector enterprises. This step signalled the government's approval of similar initiatives in the private sector thus triggering sizable retrenchment and readjustment in the private sector, especially in older industries and locations (Nagaraj, 2002; Dutt, 2003). Further, labour markets have also been able to achieve some flexibility with respect to wages in the 1990s, as evident from the fact that while real wages of workers (blue-collar workers) during this period stagnated, the emoluments of managerial and supervisory staff increased significantly, particularly in the second half of the 1990s (Sharma, 2006).

Apart from the above reforms in the labour markets, there is a continuous decline in union power starting in the 1980s. Since the late 1980s, centralised industry or industry-region wide collective bargaining has given way to decentralised bargaining and, as such, independent trade unionism has become more important. The number of plant/firm/company-based independent and unaffiliated trade unions has increased, thus causing a fall in the power of centralised affiliated unions, particularly in the private formal sector (Bhattacherjee, 1999). In fact all standard indicators of union strength show a secular decline, starting in the 1980s and accelerating in the 1990s. First, there is no evidence of deterioration in industrial relations as captured by the absence of a strong trend in man-days lost due to industrial disputes as proportion of man-days worked over the whole of the 1980s. Second, union density declined from 45 per cent in the late 1970s to about 30 per cent in the late 1980s, which further

[3] It is important to note that Bhattachajea (2006, 2009) point out that the Besley and Burgess Methodology, which exploits variation in state level amendments to the IDA, is flawed. As such, studies that have drawn upon their methodology are automatically flawed. He also points out that the literature in this genre suffers from various other methodological shortcomings, particularly their inadequate tests for robustness.

declined in the 1990s. Third, proportion of man-days lost due to strike started to fall in the 1980s and the decline accelerated sharply in the 1990s. (Nagaraj, 1994; Dutt, 2003)[4]

Further, it is argued that the dominance of a conservative view on industrial relations after the unprecedented market based reforms targeting the product markets in 1991, has apparently led the following governments post 1991 to overlook its legally mandated role in industrial disputes. Apparently, even verbal support for labour has declined in the 1990s as the formal private sector workers steadily lost their significance in the political arithmetic (Nagaraj, 2002). Furthermore several states have relaxed the provision of enforcement of labour laws leading to flexible practices at the ground level. For example, in Uttar Pradesh, the labour inspectors cannot carry out inspections without the prior consent of an officer of the rank of labour commissioner or district magistrate. Similarly, the states of Rajasthan and Andhra Pradesh have also reduced the scope of labour inspection and have exempted several establishments from the purview of labour inspection (Sharma, 2006).

Furthermore, Dutta (2007) points out that reforms aimed at increasing some flexibility with respect to laying off employees, outsourcing and sub-contracting were introduced only in 2002. Besides this, the Bharatiya Janata Party (BJP) led National Democratic Alliance (NDA) government under the leadership of Mr. Atal Bihari Vajpayee attempted to initiate an amendment to the IDA in 2002 by raising the limit beyond which the firm must obtain approval from the state to retrench and *lay-off* workers from 100 to 1000 with a provision that workers be paid as much as 45 days severance salary for each year served. However, due to immense political opposition, the limit on the firms to be freed of the IDA provision was later revised to 300 (Panagariya, 2007).

The above discussion clearly shows that despite all the concerns about rigidities and inflexibility in the Indian labour market due to collective institutions of protective labour laws, trade unions and wage setting, there have been some reforms resulting in a slight decline in rigidities and inflexibilities in the labour market, particularly in the 1990s in India, even though many would consider this far too little. In terms of the labour market indicators reported in the latest (2011-12) Global Competitiveness Report (GCR) published by the World Economic Forum, India ranks 58 in flexibility of wage determination[5] in 2010-11,

[4] For more up to date discussion on industrial disputes and conflicts in the recent times and their effects, see Shyam Sundar (2015).

[5] The flexibility of wage determination measures how are wages set in a country? In a scale of 1 (worst) to 7 (best), where 1 indicates that the wages are set by a centralised bargaining process and 7 represents freedom of individual companies to set their own wages, India scores a weighted average of 5.2 compared to the average score of 4.9 for 142 countries in 2010-11. See GCR 2011-12 (WEF, 2011) for more details.

ranks 81 in the rigidity of employment index[6] in 2009 and ranks 66 in hiring and firing practices[7] in 2010-11 out of 142 countries.

Economic reform programs in India have tended to give overwhelming importance to restoring macroeconomic stability, removing trade barriers and industrial de-licensing, where the basic assumption behind such a strategy is that with price stability and competition (both foreign and domestic), the supply side of the domestic economy will automatically adjust to the norms of efficient industrial progress. But the assessment in this section suggests that a further direct and bolder attempts at institutional reforms, particularly the strict and protective labour laws, should complement the product market liberalisation efforts in order for the labour market to adjust and reap the benefits of liberalisation.

However the literature invoked above does not adequately appreciate the point that apart from weak measures taken by the executive government the judicial interpretation of labour laws by the Supreme Court has also acted to produce a relatively more flexible labour market. These changes in the interpretation of law are quite extensive (Singh 2015, Bhattacharjea 2006), but particularly important note needs to be taken of a ruling by the Supreme Court in 2001 in the case of Steel Authority of India v. National Union Water-Front Workers[8]. This judgment has enabled Indian firms to employ 'contract' workers widely, where the term 'contract' worker refers to labour hired by firms through the offices of a labour contractor, often employing them in jobs where they work alongside permanent workers but can be fired more easily than regular workers. It is thus important to look closely at the law covering 'contract' labour and the interpretation of the law by the Indian Supreme Court.

3. The Contract Labour (Regulation and Abolition) Act 1970

The legislation relating to contract workers is the Contract Labour (Regulation and Abolition) Act, 1970 (hereafter, CLA). As the title suggests, the Act seeks to both regulate as well as abolish contract labour. However before we discuss the abolition clauses, it is important to outline the contents and implications of the law pertaining to the regulation of contract labour. The Act[9] is applicable to establishments employing a minimum of 20 contract workers. Under Section 7 of the Act, the principal employer has to obtain a certificate of registration from the authorities. To obtain such registration, the employer (under the rules stemming from the Act) is required to declare the number of workers directly employed, the

[6] The rigidity of employment index, measured in a scale of 0-100, where 100 is worst, is the average of three sub-indices: difficulty of hiring, rigidity of hours, and difficulty of firing- all three sub-indices have several components and all take values between 0 and 100, with higher values indicating more ridgid regulation. For India, the rigidity of employment index takes a value of 30 in 2009. See GCR 2011-12 (WEF, 2011) for more details.

[7] The hiring and firing practices characterises the hiring and firing of workers in a country. In a scale of 1 (worst) to 7 (best), where 1 indicates that hiring/firing are impeded by regulations and 7 represents that hiring/firing are flexibly determined by individual employers, India scores a weighted average of 4 compared to the average score of 3.9 for 142 countries in 2010-11. See GCR 2011-12 (WEF, 2011) for more details.

[8] AIR 2001 SC 3527

[9] It is to be noted that the Act has undergone recent changes in the form of amendments and judicial interpretations. There is also considerable interest on the part of the new central government under Narendra Modi to amend the Act in terms of its scope as well as its content.

nature of the work in which contract workers are to be employed, and the actual number of contract workers to be employed. Further under Section 12 of the Act the contractors who supply contract labour need to obtain licenses. Under the rules to obtain such licenses there is a requirement for the disclosure of details such as nature of work for which the contract workers are to be employed , duration and the maximum number of such contract workers. The license may contain some specifications on hours of work, fixation of wages, and amenities. Under Section 8 of the Act, both the registration certificate and/or the license can be suspended or evoked if there has been misinformation or non-compliance with conditions under which the registration or license was recorded. The Act also governs aspects of wages paid to contract workers. In general, wages paid to contract workers must not be lower than the prescribed minimum wage; and, while the responsibility of payment of wages is placed on the contractor, if the contractor falls short, the liability is placed on the principal employer (Section 21(4)) to make up for the payment due. The central (as well at least some state level rules) require parity with wages and conditions of work (hours, holidays etc.) that govern directly employed workers, if they are both doing the same work. The Act makes provisions for labour inspectors to examine relevant records as well as to speak with contract workers and initiate prosecution for contravention of the provisions of the Act.

While what has been described so far is more in terms of regulation of contract labour, the law as initially conceived was to prevent the use of contract labour and abolish it wherever it was possible with the Indian Supreme Court understanding the intent of the law along these lines as evident from its ruling on the case Gammon India Ltd. v Union of India (1974) 1 SCC 596, 601. Under Section 10 of the Act, the government has the power to prohibit the use of contract labour keeping in mind factors like whether the contract workers are being used for perennial jobs, regular workers are doing the same job, whether the work is incidental or necessary for the industry etc. Over the years, central governments and state governments have indeed issued notifications prohibiting the employment of contract workers. However the issue of what happens to workers after the abolition of contract work in an establishment often ended up being judicially determined. This precedence of judicial clarification allowed establishments to widely hire contract labour for all kinds of jobs and is probably the law that has enabled wide usage of contract labour. The initial judicial interpretation (as in Air India Statutory Corporation v. United Labour Union (1997) (9) SCC 377) stated that abolition of contract labour required the erstwhile principal employer to employ the workers in regular jobs. However, the famous Steel Authority judgment (Steel Authority of India v. National Union Water Front Workers AIR 2001 SC 3527) stated quite categorically that there was no obligation on the employer to employ contract labour that may have been abolished by the government. Among the reasons provided for this stance, the one that is often quoted is "the contract labour is not rendered unemployed as is generally assumed but continues in the employment of the contractor as the notification does not severe the relationship of master and servant between contractor and contract labour." This reasoning is at odds with the fact that the 'notification' made under Section 10 (2) of the Contract Labour (Regulation and Abolition) Act is presumably notified because the appropriate government has information that the activity for which contract labour has been hired through a contractor is either necessary for the industry, perennial in nature, is/can be performed by regular workmen or

work sufficient to employ full time workers. If this is indeed the case then there is a clear and direct link with employer, but the court makes it clear that whether the relationship is real or sham is an independent issue to be litigated as an industrial dispute separately. The courts have also something to say on whether the contract labour agreement is "sham, nominal and a mere camouflage" by pointing out that if the contract is for the supply of labour then the labour will work under the 'directions, supervision and control of the principal employer" but since the salary is paid by the contractor the "ultimate supervision and control lies with a contractor"(International Airport Authority of India v. International Air Cargo Workers Union and another (2009) 13 SCC 374). These judgments have made it very easy for employers to use contract labour for a variety of jobs, with the government almost never taking any action against the use of such labour because even if they were to abolish such labour the employers are no longer obliged to absorb them as permanent employees. Furthermore as indicated it has become very difficult to show that contract labour has been employed under sham contracts.

The courts have also set the terms regarding wages paid to contract workers. As described above, while the Act requires wage parity between regular and contract workers, the Supreme court has clarified that while looking at the issue of similar work done by regular and contract workers, the following has to be taken in to consideration:

"Nature of work, duties and responsibilities attached thereto are relevant in comparing and evaluating as to whether the workmen employed through contractor perform the same or similar kind of work as the workmen directly employed by the principal employer. Degree of skill and various dimensions of a given job have to be gone into to reach a conclusion that the nature of duties of the staff in two categories are on a par or otherwise. Often the difference may be of a degree. It is well settled that nature of work cannot be judged by mere volume of work; there may be qualitative difference as regards reliability and responsibility." (Uttar Pradesh Rajya Vidyut Utpadan Board v. Uttar Pradesh Vidyut Mazdoor Sangh (2009) 17 SCC 318.320)

This conjoined with another case (Hindustan Steelworks Construction Ltd. v. Commissioner of Labour and Others, 1996 LLR, 865(SC)) which looked into the liability of the principal employer to make up for a shortfall in wages paid to contract workers when they were performing the same work as regular workers, where the court again did not place any liability on the principal employer suggests that wage parity has not been encouraged by the law in practice.

We summarise the timeline of major judicial cases that has led to changes in the way the legislative provisions of the CLA are interpreted in **Table 1** below. It is quite clear that the judicial interpretation of the legislative provisions of the CLA applied to specific cases in the 2000s has primarily been in favour of principal employers creating a pro-employer judicial stance. Such judicial pronouncements and the regime that such interventions perpetuated clearly make employing contract labour easier and cheaper (in terms of wages, other labour payments and firing). In fact the use of contract labour by employers can be used as a device to circumvent some of the restrictions imposed by other restrictive labour legislations (such

as the IDA) and other labour market institutions (like trade unions). It allows establishment's access to a set of workers who can be terminated at will and hence the effect of such a regime should be increased labour market flexibility and rapid contractualisation of the workforce – a hypothesis that we primarily explore in our main empirical analysis in Section 4.

Table 1: Timeline of judicial interpretation by the Supreme Court of India on the legislative provisions of the CLA

Sl. No.	Year	Case	Verdict	Stance
1	1974	Gammon India Limited versus Union if India	Government has the power to prohibit the use of contract labour	Pro-worker
2	1997	Air India Statutory Corporation versus United Labour Union	Abolition of contract labour requires the erstwhile principal employer to employ the workers in regular jobs	Pro-worker
3	2001	Steel Authority of India versus National Union Water Front Workers	There is no obligation on the principal employer to employ contract labour in regular work if the government abolishes the employment of contract labour	Pro-employer
4	2009	International Airport Authority of India versus International Air Cargo Union	If a contract between the principal employer and the contractor is for supply of labour, then the contract workers will work under the direction of principal employer, but since the salary is paid by the contractor, the ultimate supervision, control and responsibility lies with the contractor	Pro-employer
5	2009	Uttar Pradesh Rajya Vidyut Utpadan Board versus Uttar Pradesh Vidyut Mazdoor Sangh	While the CLA requires wage parity between regular and contract workers for similar kind of work, the principal employer can take various factors in to consideration such as skill, reliability and responsibility of workers in deciding whether similar work done by the two categories of workers can be considered to be at par or otherwise for payment purposes	Pro-employer
6	1996	Hindustan Steelworks Construction Limited versus Commissioner of Labour	Principal employer is not liable to make up for a shortfall in wages paid to contract workers performing same work as regular workers	Pro-employer

Source: Based on authors' review of judicial cases related to the CLA

The empirical studies examining effects of labour market institutions on labour market outcomes and manufacturing performance have focused almost exclusively on the Industrial Disputes Act (IDA), 1947 despite the existence of several labour laws. In order to examine the effects of the IDA on industrial performance, the existing empirical literature uses two distinct approaches. The first is 'before and after' methodology (see, for example, Fallon and Lucas, 1993), which examines the impact of the 1976 and 1982 amendment of the IDA on industrial performance. The second exploits state level amendments of the IDA to investigate the effect of the IDA on industrial performance (see, for example, Besley and Burgess, 2004). More recent studies draw upon the Besley and Burgess methodology (i.e. the second approach) – see, for example, Sanyal and Menon, 2005; Ahsan and Pages, 2006, 2007, 2009, Hasan et al, 2007; Aghion et al, 2008, among others. The unanimous verdict of these studies is that pro-worker legislation caused rigidities and inflexibilities in the Indian labour market thus impairing industrial performance. In contrast, Fagernäs (2010) fails to find any clear relationship between pro-worker court awards as well as amendments to the IDA and formal employment in both industrial and service sectors. Goldar and Aggarwal (2012) investigate if labour market rigidities and increasing import competition have led to increased informalisation of industrial labour. Their study shows that labour market reforms tend to

increase the creation of regular jobs; the other result of their study being that import competition tends to raise casual employment among workers with education above the primary level. The EXIM Bank research brief compares labour laws of India with select countries and concludes that India needs to make the labour-related administrative regulations investor friendly to progress in industrial development. In this context it is very important to note that the impact of labour laws on manufacturing performance (output and employment) have almost entirely focused on the IDA at the cost of several other laws which have since then assumed importance – one key law being the CLA[10], which therefore forms the core of our analysis. In the following section, we therefore undertake an exploratory assessment of the implications of the recent judicial interpretation of the CLA by exploiting data on contract labour engagement in the formal manufacturing sector in India in the 2000s.

4. Contract workers in organized manufacturing: empirical patterns

Having reviewed the changes to legislative and judicial interpretations of the Contract Labour Act, 1970 [hereafter CLA] in the preceding section, we undertake an empirical exploration of the pattern of contract worker usage in Indian formal manufacturing in this section. While the existing empirical evidence seems to indicate the presence of large number of 'contract' workers in the Indian manufacturing sector, this increasing contractualisation of the workforce has not been typically discussed as a pointed labour regulation issue. As pointed out in the preceding sections, it is widely argued that Indian labour law imposes institutional rigidities inhibiting employment expansion. However, the academic literature overlooks the recent judicial interpretations to the CLA (see section 3), which has enabled Indian firms to employ 'contract' workers more widely, often employing them in jobs where they work alongside permanent workers. This needs a more detailed examination and we therefore explore data on contract labour usage in the formal manufacturing in India. More specifically, the aim of this empirical exercise is three fold. First, we seek to understand the evolution in the trends and patterns of contract worker usage in the 2000s and whether there is any evidence of the effect of changes in judicial interpretations of the CLA on the use of contract workers in formal manufacturing. Second, we attempt to bring out the implications of any increased use of contract workers due to recent changes in the judicial interpretations of the CLA on labour market flexibility in India. Third, the exploratory empirical exercise allows us to identify relevant empirical questions and hypotheses arising out of the current trends and patterns in contract labour usage in formal manufacturing in India, which we do not explicitly attempt to resolve in the current paper, but intend to examine in our future work. As such, our first stage analysis sets the ground for understanding the use of contract labour in the Indian economy.

The data used in the empirical analysis is for the formal manufacturing sector and its various sub-groups and has been sourced from the Annual Survey of Industries (ASI) undertaken annually by the Central Statistical Organisation (CSO), Government of India. ASI provides reasonably comprehensive and reliable industrial estimates at a disaggregated level for the

[10] There has been some recent applied work exploring issues related to contract labour in India– see, for example, Chaurey (2015) and Sakpal (2015).

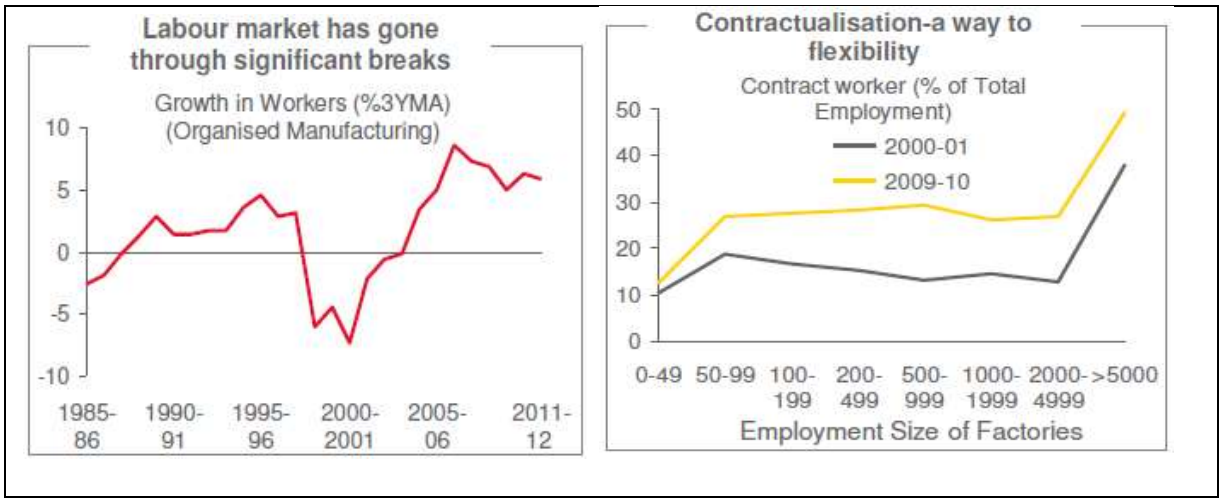
formal manufacturing sector in India. It covers the entire factory sector except factories under the control of Defence Ministry, Oil storage depots and technical training institutes. 'Factories' are those which are registered as such under the Factories Act, 1948 which relates to units which employ 10 or more workers with the aid of power and units which employ 20 or more workers without the aid of power. ASI carries out complete enumeration of large factories on a census basis, and the remaining on a sample basis, where 'large units' are defined as factories employing 50 or more workers with aid of power or 100 or more workers without the aid of power. The scope of the current study in terms of period under consideration is from 2000-01 to 2011-12. We first undertake the empirical exploration at an all India level where we focus on the entire manufacturing sub-groups of the National Industrial Classification 1998 (NIC-98) in sub-section 4.1. This is followed by an extension of the empirical analysis to a disaggregated level where we undertake the empirical exercise at a 2-digit level of NIC-98 in sub-section 4.2. In sub-section 4.3, we investigate the use of contract workers in the top 10 states (top in terms of share in aggregate manufacturing gross value-added (GVA) in 2011-12), where we also highlight selected characteristics of the top 5 industries at 3-digit level of NIC-98 (top in terms of highest share in aggregate manufacturing GVA of the state) by state.

4.1 All Manufacturing perspective

To set the context, we begin by looking at the growth in workers (blue collar production workers, not including managerial and other staff) in formal manufacturing. As shown in **Chart 1** below, we find that growth in workers has undergone several breaks between 1985-86 and 2011-12. As is clear from the chart, the first half of the 1990s saw very low growth in workers, while the second half of the 1990s, in contrast, saw a drastic fall in growth (the period of jobless growth). However, there was a turnaround in the 2000s and growth in workers saw a steady increase until 2006-07. The overall growth remained positive throughout most part of the 2000s. This growth in workers in the 2000s motivates us to explore how the usage of contract labour fared during this period? The first striking point that we observe is that the share of contract workers in total employment during this period increased across factories of all sizes, as seen in Chart 1. We also find that the share of contract workers in smaller factories (factories with less than 100 workers) rapidly increases with the size of the factory, remains more or less constant for medium to big factories (factories with over 100 to less than 2000 workers), and then increases rapidly again for very large factories (factories with over 2000 workers). Two natural questions arise from these observations: (1) why has the share of contract workers in total employment gone up in the 2000s, and, (2) what explains the variation in the share of contract workers in total employment across factories of different sizes? A potential answer to the first question lie in the fact that judicial interpretations of the CLA in favour of employers in the 2000s has enabled firms to employ contract workers more widely and hence the use of contract workers has increased across all factory sizes. But the second question is not out rightly straightforward. We find that the share of contract workers in total employment was relatively low (between approximately 13 and 18 per cent) in 2000-01 even for factories employing up to 4999 workers. However, once the threshold gets over 5000, we find that

share of contract workers in total employment shoots over 35 per cent. There can be two potential explanations for this. First, factories employing more than 5000 workers are capital-intensive industries and as such labour employed is relatively less important in the production process where repetitive machine based work or operation/repair/maintenance of relatively permanent machines can be easily achieved through non-permanent contract workers. Second, it is relatively cheaper for factories with over 5000 workers to engage contract workers in their production processes. In fact in 2009-10, factories with over 5000 workers employed nearly 50 per cent of their workers through contract.

Chart 1: Contract Workers in All Manufacturing- Overall Perspective

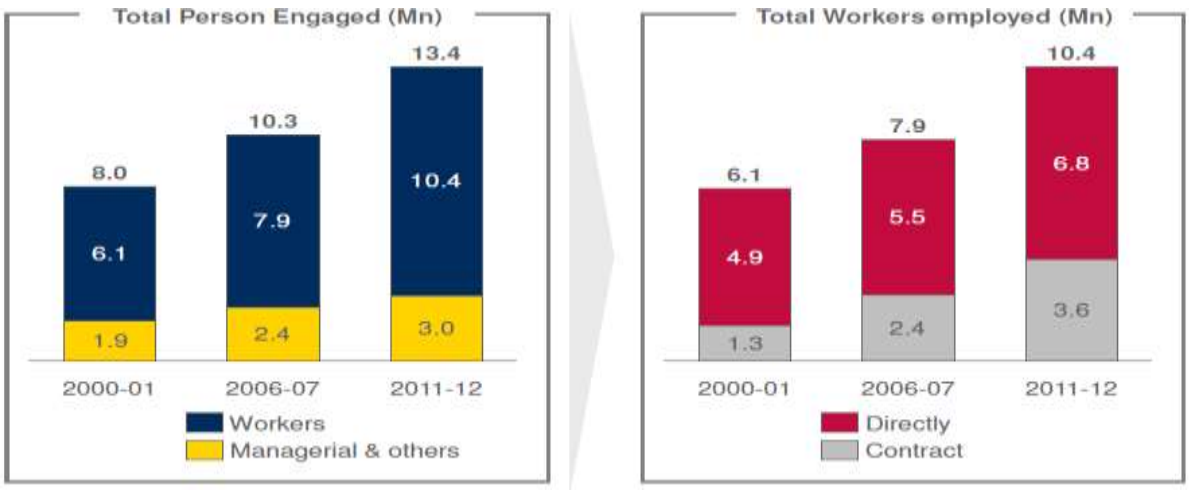


Source: Authors' computation based on ASI data

Drawing attention to the employment scenario from 2000 to 2012, we find that there has been an increase in employment by total persons engaged (which includes managerial staff as well as production workers) from 8 million to around 13 million over a decade (see **Chart 2**), of which, the "workers" category forms the largest component in relation to managerial and non production workers. Among the "workers" category, the number of contract workers increased from 1.3 million in 2000-01 across all manufacturing to around 3.6 million by 2012. Interestingly, the share of the "workers" category in total persons engaged has remained remarkably stable (76.25 per cent in 2000-01, 76.69 per cent in 2006-07, and 77.61 per cent in 2011-12), but the share of contract workers in total workers engaged continuously goes up from 21.31 per cent in 2000-01 to 30.37 per cent in 2006-07 and further to 34.61 per cent in 2011-12 (see **Chart 3**). This indicates that there has been a shift in the preference of employers for contract workers over regular workers over the period of our study thus providing evidence to our hypothesis that the judicial interpretations of the CLA in the 2000s have made it easier to engage contract workers thus adding flexibility to the labour market. In addition, we also find an increase in contract workers in all manufacturing over the 2000s when we consider it from the factory angle. This is evident from **Chart 3** below which shows clearly that, since 2000-01, permanent (or directly employed) employees per factory have remained more or less around 50 until 2009-10, since when it has declined to 45 in 2011-12; whereas, contract workers per factory have gone up from just under 10 in 2000-01 to 19 in

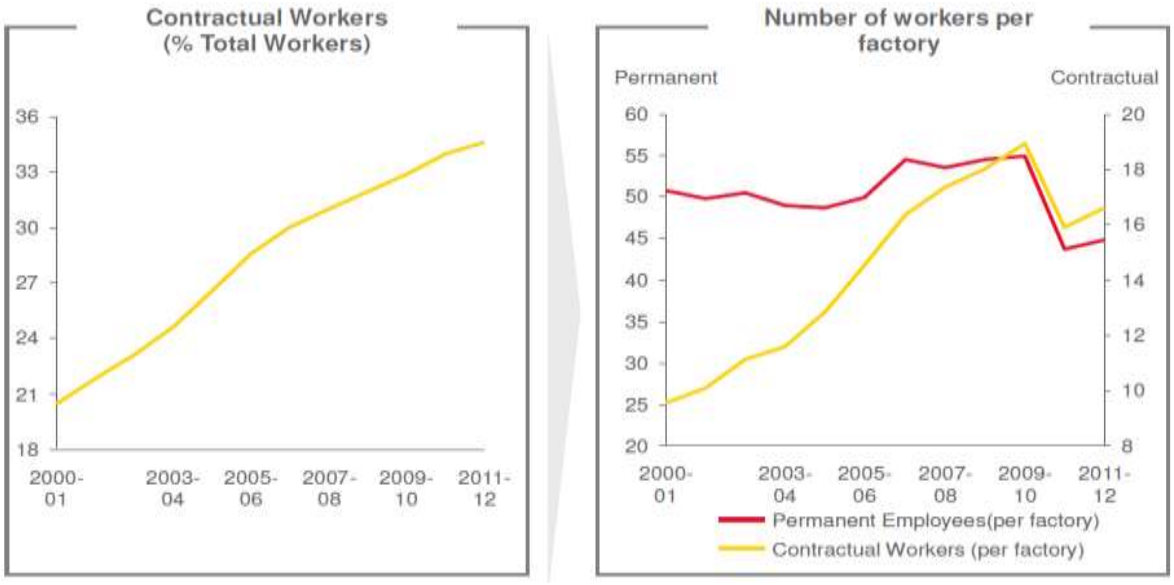
2009-10 and then a moderate decline to 17 by 2011-12. This overall fall in permanent employees per factory and overall increase in contract workers per factory over the decade suggests that bargaining power of labour has continuously eroded during the period in consideration once again suggesting increase in labour market flexibility.

Chart 2: Total Persons, Permanent Workers and Contract Workers- All Manufacturing- Selected Time Points



Source: Authors' computation based on ASI data

Chart 3: Contract Workers in All Manufacturing: 2000-12

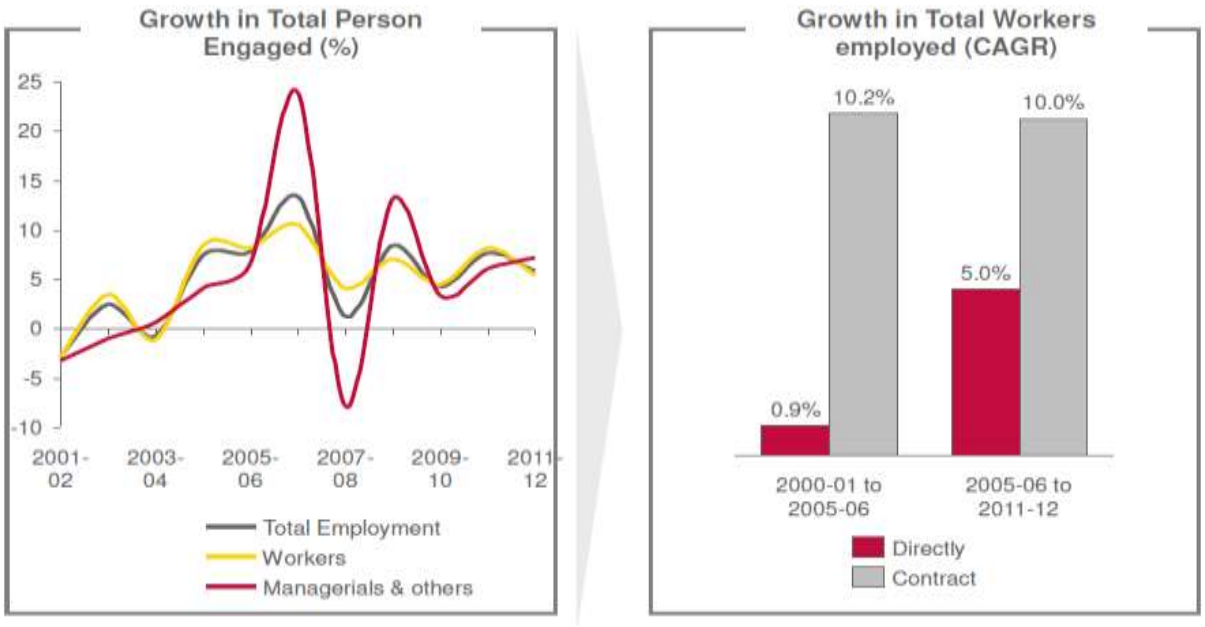


Source: Authors' computation based on ASI data

Another way of observing the contract worker engagement in India's formal manufacturing is by way of comparing the growth rates between the two five- yearly periods 2000-01 to 2005-06 and 2005-06 to 2011-12. In **chart 4** below, we plot the yearly growth rates of total persons engaged (and it's decomposition in to 'workers' and 'managerial & other staff'), which shows that there is clear break in 2005-06. It should be noted that annual growth rates in all

categories of employment remained positive throughout most of the 2000s (particularly after 2004-05, which coincides with a period characterised by high economic growth under the UPA government). In the same chart, we also present the compounded annual growth rates (CAGR) for total workers engaged by two categories – directly employed and contract workers, over the two periods i.e. 2000-01 to 2005-06 and 2005-06 to 2011-12. Clearly, the growth in contract workers over the two periods remained high at about 10 per cent, while growth in directly employed workers was a marginal 0.9 per cent during the first period and a moderate 5 per cent during the second period. This lends evidence to the hypothesis that the 2001 ruling of the Supreme Court in the Steel Authority of India versus National Union Water Front Workers in favour of the principal employer led to a massive increase in the use of contract workers post-2001 across all India formal manufacturing suggesting that labour markets have become much more flexible contrary to popular perception due to an intervention of judicial pronouncements on existing legislative provisions.

Chart 4: Growth in Total Persons, Total Workers and Contract Workers- All Manufacturing, 2000-01 to 2011-12



Source: Authors' computation based on ASI data

In this section, we attempted to bring out the possible patterns of contract worker engagement in the formal manufacturing sector of India. The aggregate analysis clearly provides evidence on increasing labour market flexibility in the formal sector of Indian manufacturing that coincides with unprecedented judicial interpretations of legislation on use of contract labour that is predominantly in favour of principal employers. However, often we find that aggregate data needs to be examined at a deeper level of disaggregation in order to understand better the various nuances of the issue - the contract labour Act and its implications for flexibility in the labour market, which we undertake in the following sub-section.

4.2 Manufacturing sector- A disaggregated view

There are various ways to capture a disaggregated view of manufacturing. For our purposes, we are looking at disaggregation of manufacturing in two ways. First, we analyse the engagement of contract labour by factor intensity of manufacturing (labour versus capital intensive manufacturing[11]) and by using the use-based classification of manufacturing in to consumer, intermediate and capital goods. Second, we bring out patterns in contract labour use at 2-digit level of disaggregation of manufacturing industries at NIC-98. The split of manufacturing into these divisions have been guided by many considerations. First, existing evidence shows that labour intensity has seen a sustained decline in India in the post reforms period (Sen and Das, 2014) not only in capital intensive industries but also in labour intensive industries. Given this backdrop, it would be interesting to observe the pattern of contact labour use in these industries. Second, there is evidence that trade reforms since the early 1990s have targeted capital and intermediate goods more than consumer goods (Das, 2004 and Das, 2015) and it would be interesting to see how contract labour has fared in industries classified by the use-based sectors. Third, an analysis at the 2-digit level of NIC-98 industries will allow us to identify which broad industry groups have seen higher growth in contract labour over the period of our study.

4.2.1 Contract labour in manufacturing by factor intensity and use-based sectors

Chart 5 below highlights the patterns in use of contract workers by factor intensity and use based classification in two panels - the upper panel reflects the intensity of production and the panel below reflects on the categories of industries.

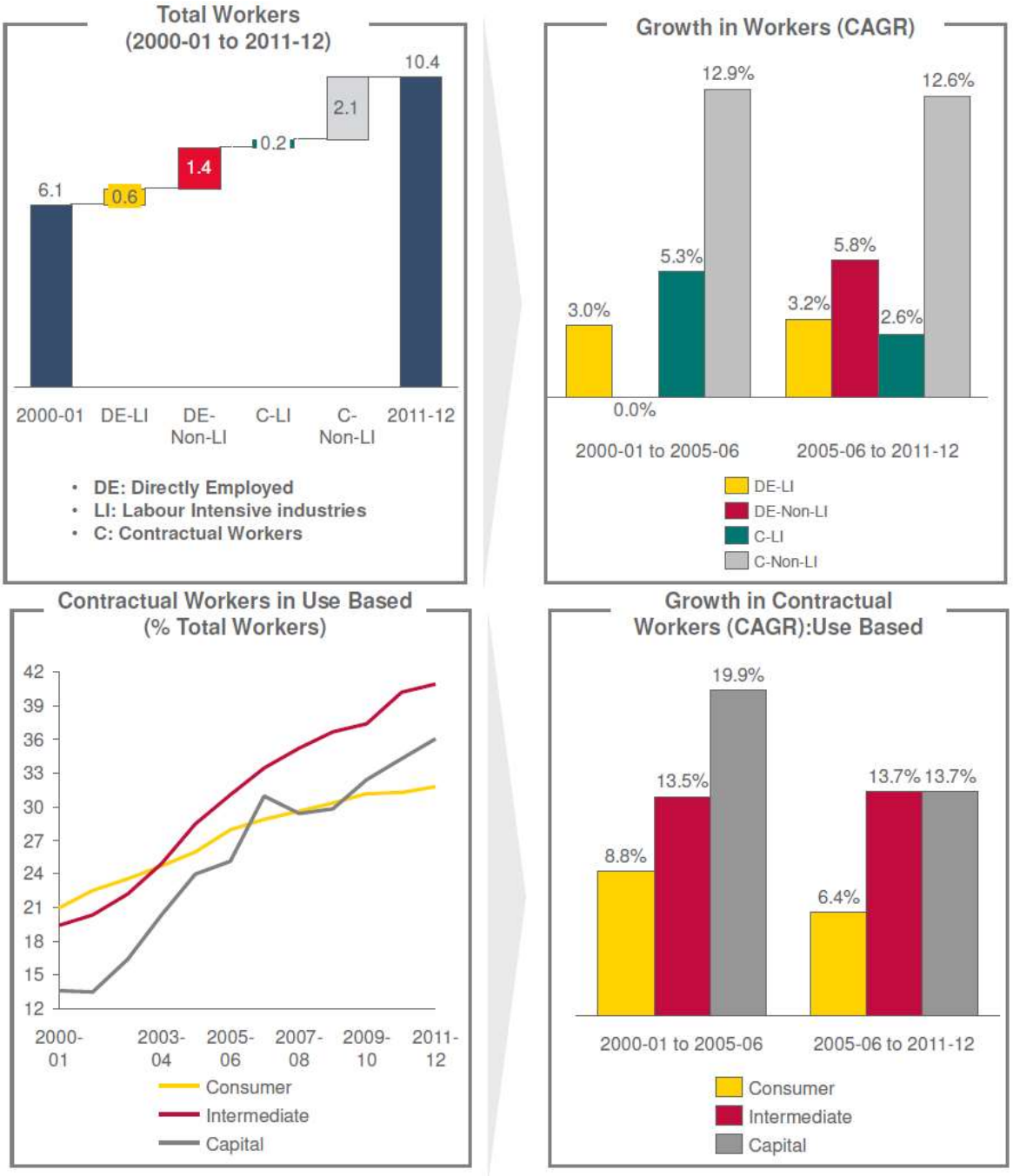
In the upper panel, we find that absorption of contract workers across all manufacturing is mostly in capital-intensive (non-labour intensive) segments of formal manufacturing. Between 2000-01 and 2011-12, the total number of workers (production workers both directly employed as well as contract workers) engaged in all manufacturing by 4.3 million from 6.1 million in 2000-01 to 10.4 million in 2011-12. Of this increase in use of workers in manufacturing, capital intensive industries had a share of 81.4 per cent (3.5 million out of the 4.3 million), of which 60 per cent of the increase was due to an increase in the use of contract workers (2.1 million contract workers versus 1.4 million directly employed workers in capital intensive segment of manufacturing. As regards the growth in workers by categories of workers, we find that capital-intensive sectors saw the highest growth in contract workers - over 12 per cent in both the sub-periods (2000-01 to 2005-06 and 2005-06 to 2011-12). Whereas directly employed workers in capital-intensive sectors saw no growth in the first sub-period and a moderate 5.8 per cent in the second sub-period. On the other hand, labour intensive sectors saw a moderate growth in directly employed workers over both the sub-periods – 3 per cent in 2000-01 to 2005-06 and 3.2 per cent in 2005-06 to 2011-12, and a fall in growth of contract workers from 5.3 per cent in the period 2000-01 to 2005-06 to 2.3 per cent in the period 2005-06 to 2011-12. This pattern of contract labour usage across labour and

[11] We follow Sen and Das (2014) in classifying the manufacturing industries by factor intensity – labour intensive versus capital intensive manufacturing.

capital intensive sectors suggest that labour employed in capital intensive sectors is relatively less important in the production process where repetitive machine based work or operation/repair/maintenance of relatively permanent machines can be easily achieved through non-permanent contract workers. As such, capital intensive segment of manufacturing saw a faster growth in contract workers as these workers were simply required to manage and operate production floors, which could be possibly achieved by training semi-skilled or unskilled workers sourced through contactors. On the other hand, the fact that labour intensive industries saw a consistent growth in directly employed workers and fall in the growth of contract workers implies that such industries require non-transferable industry specific skills which cannot be achieved with non-permanent contract workers but by on the job training of directly employed workers. To formally test this hypothesis, we will obviously need more detailed data on skills and costs of training by industries, which is beyond the scope of the current paper. Nevertheless, our investigation of the contract labour use data allows us to consider this as a valid hypothesis, which we intend to pursue in our future work.

In the lower panel of **Chart 5**, we see that consumer goods segment of manufacturing had the highest share of contract workers in total workers engaged in the beginning of our period of study i.e. 2000-01. However, following the judicial pronouncement in 2001 enabling easier engagement of contract workers and trade reforms targeted on capital and intermediate goods sectors, we see a faster growth of contract workers use for both the capital goods and intermediate goods sector over the two sub-periods 2000-01 to 2005-06 and 2005-06 to 2011-12, while the growth in contract workers for the consumer goods sector fell from 8.8 per cent in the first sub-period to 6.4 per cent in the second sub-period. Consequently, the share of contract workers in total workers engaged was lowest for the consumer goods sector at the end of the period i.e. in 2011-12. The possible explanation for this is as follows. The trade reforms that targeted the capital and intermediate goods sector resulted in increase in competition in these sectors requiring these sectors to adjust their employment of resources. Since it became much easier to engage contract workers following the judicial intervention in the 2000s, these sectors responded to increased competition by engaging with contract workers rather than directly employed workers. Since consumer goods sectors were relatively protected, they did not feel the pressure for adjustment and hence their use of contract workers was relatively less than the other two sectors. A natural hypothesis that arises out of the above observations, which we intend to consider and explore in our future work, is whether there is any link between openness, nature of industry and skills and use of contract workers?

Chart 5: Contract Workers in Organized Manufacturing- Labour Intensive, Capital Intensive and Use Based Sectors



Source: Authors' computation based on ASI data

4.2.2 Contract labour in manufacturing – two-digit perspective

In this sub-section, we empirically explore the use of contract labour at the two-digit level of industrial disaggregation. This enables us to document contract worker engagement at the individual industry level. We provide information on contract workers use for the entire formal manufacturing at two-digit NIC-98. From **Table 2** below, we observe variations in growth of contract workers across industry groups as well as over the sub periods chosen.

The growth of contract workers is more visible in the first period compared to the second period. The average growth in contract workers in the first sub-period 2000-01 to 2005-06 across all 23 2-digit industries was 72.91 per cent, which fell to 61.68 per cent in the second sub-period 2005-06 to 2011-12, along with a fall in the dispersion.

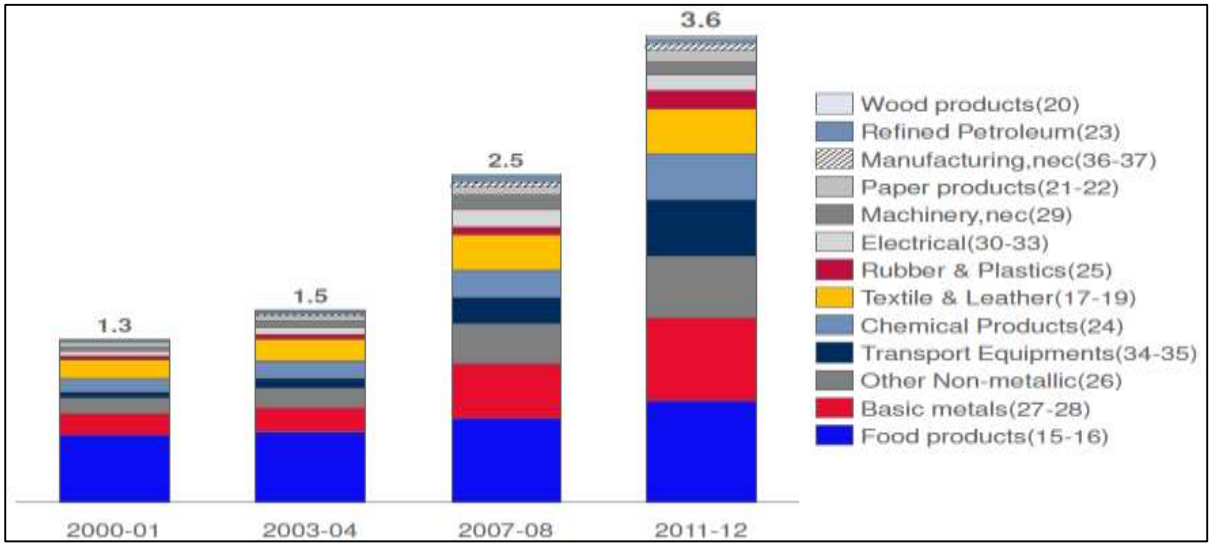
Table 2: Growth in 'workers employed through contractors' across various two-digit industries of the manufacturing sector

Sl. No.	Industry Code (NIC-98)	Description of industries	Growth rate of 'workers employed through contractors'	
			2000-01 to 2005-06	2005-06 to 2011-12
1.	15	MANUFACTURE OF FOOD PRODUCTS AND BEVERAGES	31.07%	41.42%
2.	16	MANUFACTURE OF TOBACCO PRODUCTS	5.90%	-9.36%
3.	17	MANUFACTURE OF TEXTILES	35.23%	34.51%
4.	18	MANUFACTURE OF WEARING APPAREL; DRESSING AND DYEING OF FUR	133.42%	44.31%
5.	19	TANNING AND DRESSING OF LEATHER; MANUFACTURE OF LUGGAGE, HANDBAGS SADDLERY, HARNESS AND FOOTWEAR	30.31%	46.95%
6.	20	MANUFACTURE OF WOOD AND OF PRODUCTS OF WOOD AND CORK,EXCEPT FURNITURE;MANUFACTURE OF ARTICLES OF STRAW AND PLATING MATERIALS	108.67%	35.26%
7.	21	MANUFACTURE OF PAPER AND PAPER PRODUCTS	21.10%	37.20%
8.	22	PUBLISHING, PRINTING AND REPRODUCTION OF RECORDED MEDIA	75.76%	113.72%
9.	23	MANUFACTURE OF COKE, REFINED PETROLEUM PRODUCTS AND NUCLEAR FUEL	115.39%	12.85%
10.	24	MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	47.06%	62.25%
11.	25	MANUFACTURE OF RUBBER AND PLASTIC PRODUCTS	85.80%	80.91%
12.	26	MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	70.51%	63.70%
13.	27	MANUFACTURE OF BASIC METALS	50.72%	79.34%
14.	28	MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENTS	64.24%	69.58%
15.	29	MANUFACTURE OF MACHINERY AND EQUIPMENT N.E.C	87.47%	88.87%
16.	30	MANUFACTURE OF OFFICE, ACCOUNTING AND COMPUTING MACHINERY	-41.66%	120.58%
17.	31	MANUFACTURE OF ELECTRICAL MACHINERY AND APPARATUS N.E.C.	102.35%	82.58%
18.	32	MANUFACTURE OF RADIO, TELEVISION AND COMMUNICATION EQUIPMENT AND APPARATUS	99.67%	73.37%
19.	33	MANUFACTURE OF MEDICAL, PRECISION AND OPTICAL INSTRUMENTS, WATCHES AND CLOCKS	117.35%	42.53%
20.	34	MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	137.13%	118.44%
21.	35	MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	105.24%	80.95%
22.	36	MANUFACTURE OF FURNITURE; MANUFACTURING N.E.C.	67.43%	70.31%
23.	37	RECYCLING	126.71%	28.48%
Average			**72.91%**	**61.68%**
SD			**0.45382348**	**0.32870815**
Median			**75.76%**	**63.70%**
Max			**137.13%**	**120.58%**
Min			**-41.66%**	**-9.36%**

Source: Author's computations based on ASI data

Chart 6 presents the share of 2-digits industries in contract labour usage over time. A detailed examination of the sub groups of formal manufacturing at the two-digit classification shows those industries such as food products (15-16), basic metals (27-28), other non-metallic products (26) and transport equipment (34-35) absorbs almost 65 percent of contract workers in formal manufacturing. The question that arises from this observation is why do certain kinds of industry groups attract more contract workers than others? A potential explanation to this is that the nature of industry specific skills dictates whether to use contract labour or not. Industries that require more specialised skills will have less flexibility to engage with contract labour. On the other hand, industries that depend on workers that do repetitive floor based work, which does not require specialist skills, or technical knowledge can easily engage with contract worker. This is a hypothesis that we would like to consider and investigate in our future work.

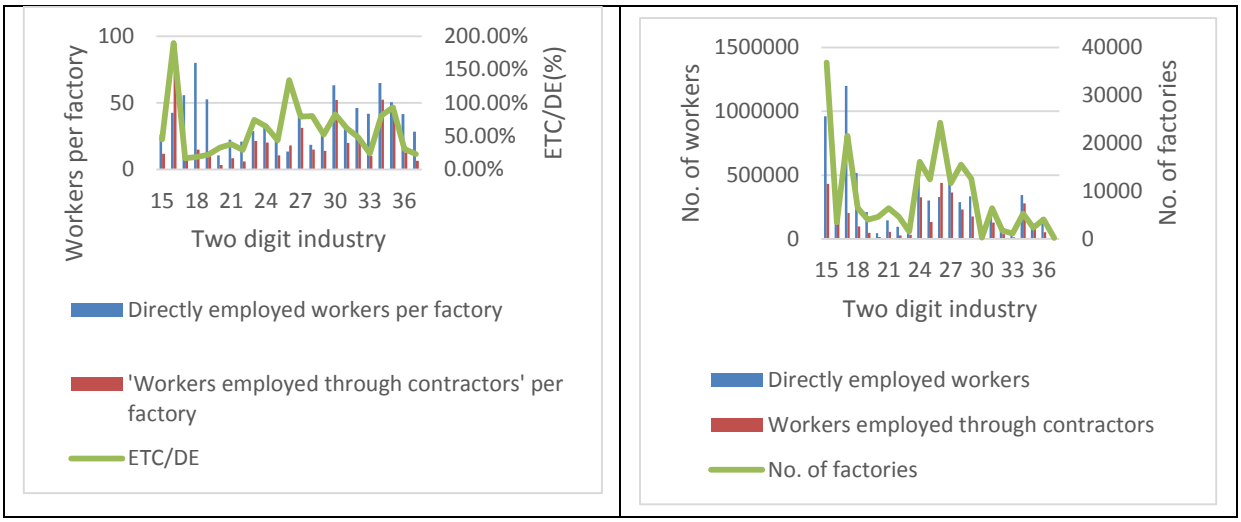
Chart 6: Contract Workers in Two Digit NIC Subgroups- Different Time Points



Source: Authors' computation based on ASI data

Finally, we also look at the proportion of permanent and contract workers per factory for each of 2-digit industry groups in the formal manufacturing. **Chart 7** below lists this for all the two-digit industry groups for the year 2011-12. In order to assess the contract worker intensity by industry groups, we highlight the ratio of contract workers to directly employed works. In the right panel of **Chart 7**, we compare the permanent and contract workers by number in millions and as expected we find wide differences in contract worker engagement. Further when we add the line graph depicting the number of factories for these industry groups, we do find wide variations. Our first observation is that this varies across industry groups implying variation in bargaining power of labour. Industries with a higher 'contract workers to directly employed workers' ratio should exhibit lower bargaining power of labour. It would be worthwhile to test this proposition later along with an assessment of what explains the variation in use of contract labour across industries. This has perhaps got to do with the nature of business activity in these sub groups.

Chart 7: Permanent Workers, Contract Labour and Factories – Two Digit NIC Sub-Groups



Source: Authors' computations based on ASI data

In the preceding two sub-sections, we have documented evidence of the engagement of contract workers across the spectrum of formal manufacturing in India. We find both at the aggregate level (all manufacturing) and various levels of disaggregation (broad sectors as well as individual industry sub groups) a significant presence of contract workers. This becomes even more discerning when we compare with the directly employed workers - also called permanent workers. This analysis presents evidence to support our hypothesis that the judicial interpretation of the legislative provisions of the CLA, starting in 2001 has paved the way for firms and establishments to hire contract labour with ease thus increasing labour market flexibility. It has been widely argued that Indian labour law imposes institutional rigidities inhibiting employment expansion, but our analysis presents new evidence on labour market flexibility in India achieved through increasing employment of contract labour, where contract workers work alongside permanent workers resulting in contractualisation of the workforce.

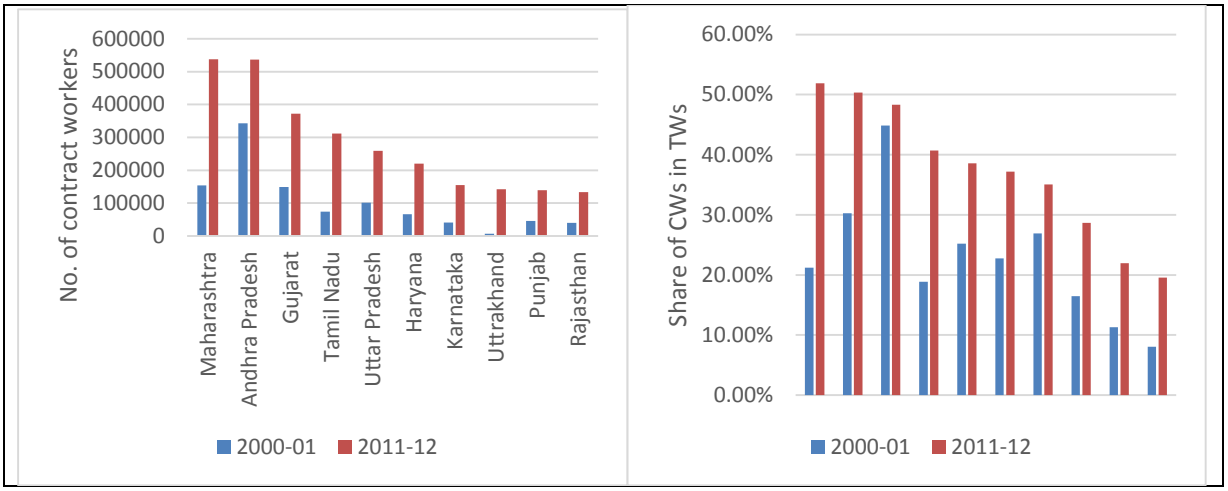
4.3 Manufacturing – A state level analysis

When it comes to legislative authority over labour issues in India, both the Central government as well as the individual state governments exercise legislative powers so that the latter have the power to amend central legislations or to introduce subsidiary legislations. Thus a state perspective on engagement of contract workers in formal manufacturing assumes utmost importance. As is evident at the all India level, that there is widespread engagement of contract workers, it becomes important to check how well does this hypothesis fit in at the state level. As indicated earlier in the paper, we consider the top 10 states of India (top in terms of share in aggregate manufacturing gross value-added (GVA) in 2011-12) and at the state level our focus is on three digit manufacturing to get a deeper understanding of contract worker use at the state level.

As a first step, we identify the states with the maximum number of contract workers and in proportion to directly employed workers. **Chart 8** below shows the number of contract workers in the left panel and the share of contract workers in total workers engaged in the right panel. In both panels, we present the statistics for the first and last year of our study i.e. 2000-01 and 2011-12. It is clearly evident that the engagement with contract workers has increased across all states both in terms of absolute numbers and in proportion to permanent workers. This clearly provides evidence in support of our hypothesis about increased flexibility in the labour market and contractualisation of the workforce following judicial pronouncements on the CLA in favour of principal employers and verifies that this is not only true at an aggregate all India level but also holds at the state level. Each of the major states in our analysis has seen a rise in the use of contract workers throughout the 2000s as seen in **Chart 8**, both in terms of absolute numbers as well as in terms of proportion to total workers engaged over the period 2000-01 to 2011-12. This is true irrespective of the legislative stance of the states as defined by Besley and Burgess (2004): pro-worker states like Maharastra and Gujarat and neutral states like Haryana and Punjab saw considerable increase in the use of contract workers between 2000-01 and 2011-12 just as pro-employer states like Andhra Pradesh and Tamil Nadu.

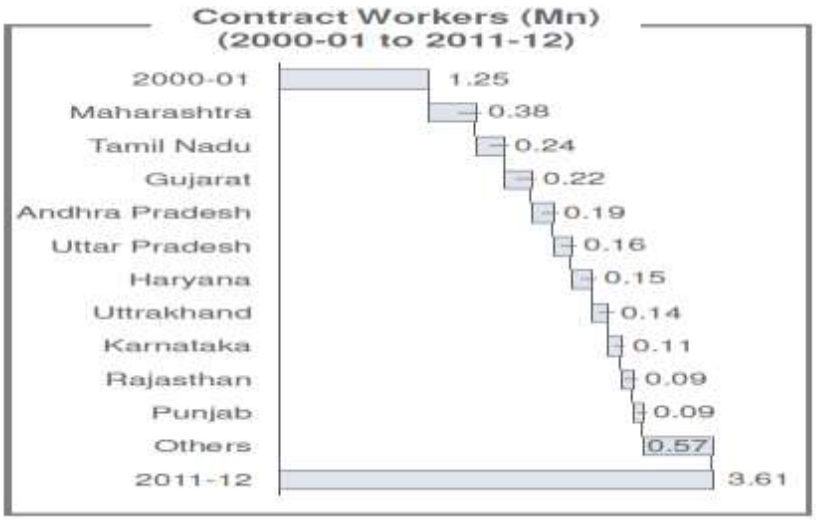
Further, we find that at an all India level, across all manufacturing sub-groups, the increase in contract workers has been from 1.25 million in 2000-01 to 3.61 million in 2011-12. In **Chart 9**, we highlight the contribution of each state in this increase in contract worker engagement between 2000-01 and 2011-12. As is evident, Maharashtra followed by Tamil Nadu, Gujarat, Andhra Pradesh and Uttar Pradesh are the top 5 to have contributed the most in the increase in contract workers over the 2000s. Interestingly, Maharashtra and Gujarat are categorised as pro-worker states by Besley and Burgess (2004), while Tamil Nadu and Andhra Pradesh are categorised as pro-employer states. Besley and Burgess consider Uttar Pradesh as a neutral state in that they have not amended state labour legislation either in favour of workers or in favour of employers in the 1960s through the 1990s. This further lends support to our hypothesis that the pro-employer verdicts of the Supreme Court of India in the 2000s has resulted in labour market flexibility and contractualistaion of the workforce across all states in India.

Chart 8: Contract Workers and Indian States - 2000-01 and 2011-12



Source: Authors' computation based on ASI data

Chart 9: Share of states in increase in contract worker use between 2000-01 and 2011-12



Source: Authors' computation based on ASI data

Next we discern the type of industry sub-groups that contribute to the employment of contract workers in the respective states. We assess the use of contract workers in the top 5 industry sub-groups within each state in terms of their share in aggregate gross value added (GVA) of the states manufacturing GVA. **Table 2** below presents the number of contract workers employed in 2011-12, the growth of contract labour employment over 2000-01 to 2011-12 and contract workers as a proportion of directly employed workers in 2011-12 for the top 5 industry sub-groups (at NIC-2004) for each state considered in our analysis. A close look at the table shows that in 6 out of the 10 states, all the top 5 industry sub-groups in terms of share in the states' aggregate manufacturing GVA in 2011-12 are capital-intensive

industries.[12] Industry sub-group 153 (Manufacture of grain mill products, starches and starch products, and prepared animal feeds) in Andhra Pradesh and Haryana, industry sub-groups 181 (Manufacture of wearing apparel, except fur apparel) and 154 (Manufacture of other food products) in Karnataka and industry sub-group 160 (Manufacture of tobacco products) in Uttar Pradesh are the only labour-intensive industries that feature among the 50 3-digit industries listed in **Table 3**. While this does not confirm the importance of increase in contract labour use in capital-intensive industries by state as the choice of our industries in **Table 3** is not in terms of proportion of contract workers in total workers engaged but in terms of share of industries in aggregate state manufacturing GVA, it still shows the pattern of contract labour use in the capital-intensive industries. The first observation is that the use of contract labour has grown over the period 2000-01 to 2011-12 for almost all the capital-intensive industries across each state (except for industry sub-groups 171 (Spinning, weaving and finishing of textiles) in Gujarat, and 341 (Manufacture of motor vehicles) in Haryana). The second observation is that the there is considerable variation in the growth of contract labour engagement and the proportion of contract workers to directly employed workers between industries within a state as well as across states for the same industry sub-group. This throws out several questions. What explains the variation in contract labour use between industries within states? What explains the variation in contract labour engagement across states for the same industry sub-groups? Is it industry specific internal factors like skill requirements and nature of production or is it external factors like effects of legislation and economic geography factors. To examine these hypotheses, we will need to undertake our analyses at a much more deeper level, which we intend to do in our future work. The current paper is aimed to undertake an exploratory analysis to understand the various nuances associated with contract labour use in India's formal manufacturing in the 2000s and whether there is any evidence of increased flexibility in the labour market following the judicial pronouncements in the 2000s.

[12] The split of industry sub-groups in to capital-intensive industries and labour-intensive industries is based on Sen and Das (2014). They identify 13 labour-intensive industries at three-digit classification of NIC-98. We use an appropriate concordance of the NIC-2004 industries to the NIC-98 industries at the four digit to identify which industries in our sample are labour-intensive.

Table 3: Selected characteristics of the five industries with the highest share in the aggregate manufacturing Gross Value Added (GVA) of the state

Rank (in descending order)	NIC 2004 code	Description	Share in aggregate manufacturing GVA of the state (2011-12)	No. of workers employed through contractors (2011-12)	Average Annual Growth rate in workers ETC (2001-02 to 2011-12)	Contract Workers as a proportion of Directly Employed workers
Andhra Pradesh						
1	***242***	Manufacture of other chemical products	29.31%	36111	16.15%	88.78%
2	***269***	Manufacture of non-metallic mineral products n.e.c.	18.50%	42809	12.30%	101.88%
3	***271***	Manufacture of Basic Iron & Steel	18.37%	10988	10.91%	50.66%
4	***153***	Manufacture of grain mill products, starches and starch products, and prepared animal feeds	9.84%	41311	8.63%	90.27%
5	***241***	Manufacture of basic chemicals	7.75%	8706	10.32%	75.81%
Gujarat						
1	***241***	Manufacture of basic chemicals	34.88%	38256	6.14%	105.36%
2	***232***	Manufacture of refined petroleum products	30.23%	7807	33.73%	472.29%
3	***242***	Manufacture of other chemical products	15.88%	39784	4.60%	95.99%
4	***151***	Production, processing and preservation of meat, fish, fruit vegetables, oils and fats	9.93%	10194	3.17%	120.07%
5	***171***	Spinning, weaving and finishing of textiles.	8.55%	27088	-1.71%	19.73%
Haryana						
1	***343***	Manufacture of parts and accessories for motor vehicles and their engines	18.21%	51319	18.19%	230.12%
2	***359***	Manufacture of transport equipment n.e.c.	16.82%	35561	19.59%	279.37%
3	***341***	Manufacture of motor vehicles	13.90%	7996	-7.67%	206.88%
4	***153***	Manufacture of grain mill products, starches and starch products, and prepared animal feeds	9.68%	7821	-5.61%	167.76%
5	***292***	Manufacture of special purpose machinery	8.08%	9173	15.32%	94.52%
Karnataka						

Rank (in descending order)	NIC 2004 code	Description	Share in aggregate manufacturing GVA of the state (2011-12)	No. of workers employed through contractors (2011-12)	Average Annual Growth rate in workers ETC (2001-02 to 2011-12)	Contract Workers as a proportion of Directly Employed workers
1	***271***	Manufacture of Basic Iron & Steel	59.45%	16584	22.13%	183.67%
2	***181***	Manufacture of wearing apparel, except fur apparel	4.12%	7952	28.47%	3.20%
3	***154***	Manufacture of other food products	3.47%	8455	7.86%	28.82%
4	***242***	Manufacture of other chemical products	3.29%	36111	16.15%	88.78%
5	***269***	Manufacture of non-metallic mineral products n.e.c	3.19%	7680	8.64%	53.25%
Maharashtra						
1	***232***	Manufacture of refined petroleum products	25.20%	3669	6.68%	84.56%
2	***242***	Manufacture of other chemical products	19.58%	38739	12.70%	84.44%
3	***291***	Manufacture of general purpose machinery	9.54%	21883	15.49%	85.52%
4	***292***	Manufacture of special purpose machinery	8.21%	18208	19.92%	69.88%
5	***241***	Manufacture of basic chemicals	7.85%	13177	9.06%	64.63%
Punjab						
1	***242***	Manufacture of other chemical products	45.13%	2836	11.76%	47.13%
2	***171***	Spinning, weaving and finishing of textiles.	12.89%	1818	1.09%	2.71%
3	***292***	Manufacture of special purpose machinery	6.08%	6083	15.32%	33.84%
4	***269***	Manufacture of non-metallic mineral products n.e.c	4.00%	72748	33.22%	2054.45%
5	***359***	Manufacture of transport equipment n.e.c	3.07%	1703	20.38%	4.51%
Rajasthan						
1	***343***	Manufacture of parts and accessories for motor vehicles and their engines	23.01%	5656	49.29%	92.03%
2	***269***	Manufacture of non-metallic mineral products n.e.c	21.68%	43995	12.96%	167.47%
3	***242***	Manufacture of other chemical products	10.18%	1823	0.34%	13.94%
4	***155***	Manufacture of beverages	6.32%	2646	20.58%	65.35%
5	***171***	Spinning, weaving and finishing of textiles	5.44%	11354	5.83%	19.06%
Tamil Nadu						

Rank (in descending order)	NIC 2004 code	Description	Share in aggregate manufacturing GVA of the state (2011-12)	No. of workers employed through contractors (2011-12)	Average Annual Growth rate in workers ETC (2001-02 to 2011-12)	Contract Workers as a proportion of Directly Employed workers
1	***343***	Manufacture of parts and accessories for motor vehicles and their engines	10.72%	44314	27.01%	54.22%
2	***341***	Manufacture of motor vehicles	8.14%	6363	12.30%	37.00%
3	***281***	Manufacture of structural metal products, tanks, reservoirs and steam generators	7.82%	29466	8.94%	95.63%
4	***291***	Manufacture of general purpose machinery	7.46%	11940	14.56%	33.86%
5	***171***	Spinning, weaving and finishing of textiles	6.66%	11323	8.94%	4.98%
Uttar Pradesh						
1	***241***	Manufacture of basic chemicals	11.00%	6381	4.42%	83.6%
2	***160***	Manufacture of tobacco products	8.27%	6946	6.27%	84.3%
3	***232***	Manufacture of refined petroleum products	7.29%	215	31.13%	18.3%
4	***242***	Manufacture of other chemical products	6.71%	8132	10.64%	56.2%
5	***323***	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods	6.58%	3058	22.3%	71.6%
Uttarakhand						
1	***242***	Manufacture of other chemical products	16.57%	24736	46.47%	141.30%
2	***359***	Manufacture of transport equipment n.e.c	15.53%	9887	120.88%	153.10%
3	***341***	Manufacture of motor vehicles	6.99%	2597	-	44.29%
4	***343***	Manufacture of parts and accessories for motor vehicles and their engines	6.60%	28034	94.27%	275.79%
5	***291***	Manufacture of general purpose machinery	6.30%	5277	84.74%	99.80%

Source: Authors' calculation based on ASI data

Finally, we look within each state, the industry with the highest contract worker concentration (see **Table 4**). It is important to note that we do find some correlation between industries with high value added contribution to state manufacturing GVA and engagement with contract worker for some states – for Gujarat, Haryana, Karnataka, Punjab, Rajasthan, Tamil Nadu and Uttarakhand, the industry with the highest contract worker concentration features in the top 5 industries by share in aggregate state manufacturing GVA. Interesting, the industries with highest contract worker concentration for Andhra Pradesh, Maharashtra and Uttar Pradesh do not even feature in the top 5 industries by share in aggregate state manufacturing GVA. In fact Andhra Pradesh is the only state where the highest contract worker concentration is for a labour-intensive industry. This analysis clearly supports the proposition that capital-intensive industries are the ones that engage with contract workers more widely. Andhra Pradesh is the only exception where we see that the labour-intensive industry 160 (Manufacture of tobacco products) is the one that has the highest concentration of contract workers in the state.

Table 4: Industries across states with the highest CW concentration in 2011-12

Sl. No.	**State**	**Industry Code**	**Description**	**No. of contract workers**	**CWs as a % of aggregate CWs in manufacturing in the state**
1.	Andhra Pradesh	***160***	Manufacture of tobacco products	228720	44.93%
2.	Gujarat	***242***	Manufacture of other chemical products	39784	11.11%
3.	Haryana	***343***	Manufacture of parts and accessories for motor vehicles and their engines	51319	23.57%
4.	Karnataka	***271***	Manufacture of Basic Iron & Steel	16584	11.02%
5.	Maharashtra	***343***	Manufacture of parts and accessories for motor vehicles and their engines	50707	10.01%
6.	Punjab	***269***	Manufacture of non-metallic mineral products n.e.c	72748	54.40%
7.	Rajasthan	***269***	Manufacture of non-metallic mineral products n.e.c	43995	34.16%
8.	Tamil Nadu	***343***	Manufacture of parts and accessories for motor vehicles and their engines	44314	14.57%
9.	Uttar Pradesh	***289***	Manufacture of other fabricated metal products; metal working service activities	33031	13.05%
10.	Uttarakhand	***343***	Manufacture of parts and accessories for motor vehicles and their engines	28034	19.83%

Source: Authors' calculation based on ASI data

It is also interesting to note in **Table 4** that there are two industries – 343 (Manufacture of parts and accessories for motor vehicles and their engines) and 269 (Manufacture of non-metallic mineral products) – which appear as the industry with the highest concentration of contract workers across several states. Industry group 343 is the industry with the highest concentration on contract workers in 2011-12 for Haryana, Maharashtra, Tamil Nadu and Uttarakhand, whereas industry group 269 is the industry with most contract workers in 2011-12 for Punjab and Rajasthan. This implies that the industry sub-group and the nature of work and business relations is vital in the use of contract labour, a point that should be examined at a more detailed level.

5. Conclusion and the Challenges Ahead

This paper undertook an exploratory and investigative exercise to assess the Contract Labour (Regulation and Abolition) Act 1970 (CLA) and its implications for employment in the formal manufacturing sector in India. The paper finds that the CLA in India has undergone drastic changes since its inception in 1970. Although legislated with the original intention to protect contract workers against exploitation and for enhancing their overall welfare, the Act has seen major judicial intervention in the 2000s that go against the historical rhetoric of the Act. The judicial verdicts on the legislative provisions of the Act, by the Supreme Court of India in popular high-profile cases, have been pre-dominantly in favour of employers paving the way for flexibility in the labour market and for wider and easier use of contract workers in manufacturing. Although there is a modest and growing literature examining the issues in the use of contract labour in Indian manufacturing, the above-discussed judicial interpretations of the CLA have been primarily been overlooked by the existing empirical literature. As such this paper addresses the evolution of the CLA as a pointed labour issue and assesses the ramifications of judicial intervention on contract labour use in manufacturing. The empirical analysis on the patterns of contract labour engagement by industries and states in this paper therefore provides new evidence from India that the judicial interpretations of the CLA in the 2000s have resulted in increased flexibility in the labour market and has resulted in contractulisation of the labour force. The findings clearly indicate that firms use contract workers to circumvent the restrictive labour market institutions governing the use of regular workers.

The findings of the paper bring out several larger issues that need to be addressed in any ensuing future research. First, it is important to understand why firms have shifted from the use of regular workers to contract workers. Is it due to the institutional rigidities posed by restrictive labour market institutions in the use of regular workers or are there other factors, like temporary market shocks that require labour adjustment by the firms, or some combination of them?. Second, it is quite important to understand, why some firms (or industries) use more contract workers relative to others – is this to do with the type/nature of work/production processes, or is it do with the skill requirements for the job or skills endowments of the different types of labour? Third, there is the issue of investment in skill and workers' productivity, which comes from kind of job security that are largely being avoided here. We need to understand if this is conceived as the best business practice, then

how is manufacturing going to benefit through a sustained use of contract workers from a long term perspective and address issues that are important for manufacturing to grow and thereby absorb more people to reap the demographic dividend benefits of young population. From the viewpoint of employers the crucial benefit of using contract workers may lie in terminating the employment of the worker at will. But, such workers in turn can/will also leave at will. There may be social costs in the fact that such workers may not be sticking around to get skilled - so there will be a perceived shortage of workers and in the current scenario there is definitely insufficient institutional support around for such workers to remain. At the end of the day contract labour is good for relatively unskilled work but not for jobs that require some worker investment one may have to think more comprehensively. Fourth, the issue of the welfare of contract workers also need to be addressed. While use of contract labour may enhance labour market flexibility, one must not forget that these workers will be highly vulnerable to negative market shocks, particularly in the absence of social security in India. The firing of workers is a crucial risk allocation issue - the current law is structured to force the employer to bear the risk and as we have seen to escape this, employers have been able to push the risk entirely on to workers given the large scale contract labour hiring. It is iniquitous to push the risk on workers entirely. Since society as a whole needs to bear this risk collectively - unemployment insurance and other risk sharing devices such as worker re-training/apprenticeship programs that can help displaced contract workers (in times of negative market shocks) to be re-absorbed in employment are very important issues that need to be talked about in relation to labour markets of India. These issues necessarily form the basis of our future work.

The challenges for conducting a study on aspects of labour market reforms and its consequences for manufacturing jobs lies in exploring how the various labour laws affect a firm's decision making, its operations and its economic performance. In particular, we need to know within the confines of contract workers act, how does an increase/decrease in demand, introducing a new product, changing technologies, when the firm decides to outsource affect key parameters of manufacturing performance. These questions along with the issues outlined may be addressed by analysing data from an ongoing survey of manufacturing firms across five states, currently being undertaken by ICRIER, as part of a larger World Bank funded project 'Jobs for Development', of which this preliminary investigative paper forms a part and is a one of the first in a series of publications to come out of this project.

While evidence from secondary sources indicates a significant engagement of contract workers in Indian manufacturing, agenda for future research with the help of primary survey should be to examine on the economic and institutional outcomes of using contract labour alongside permanent labour. It isn't just about the management of contract labour that we care about but how it impacts the firms' performance parameters. Does it raise or lower costs per unit? Does it impair consistency? Does it lower or increase productivity? How does it impact learning on the shop floor and prospects for innovation on the shop-floor, as well as timely, low defect delivery. If the turn to contract labour is a compromise pushed by labour laws then that needs to come out more directly based on these aspects. This forms the challenges ahead. It has often been argued that labour market rigidities stand in the way of

enhancing manufacturing employment despite reforms of several crucial rules and regulations that stand in the way of manufacturing sector achieving competitive standards as practiced in several other Asian economies including China. However, in the name of labour market reforms- especially related to decisions of hiring and firing, there seems to be greater emphasis on Industrial Disputes Act 1947, especially chapter VB at the cost of several other pertinent laws applicable in the Indian context - notably the Contract Labour (Regulation and Abolition) Act, 1970 in examining and understanding the labour reforms and its impact on manufacturing.

Bibliography

Aghion, P., R. Burgess, S. J. Redding and F. Zilibotti (2008), The Unequal effects of Liberalizartion: Evidence from dismantling the License Raj in India, American Economic Review, Volume 98, Issue 4, Pages 1397 – 1412.

Ahluwalia, M. S. (2002), Economic Reforms in India Since 1991: Has Gradualism Worked?, Journal of Economic Perspective, Volume 16, Issue 3, Pages 67–88, Summer 2002.

Besley, T. and R. Burgess (2004), Can Labor Regulations Hinder Economic Performance? Evidence from India, Quarterly Journal of Economics, Volume 119, No. 1, Pages 91–134

Bhattacharjea, A. (2006), Labour market regulation and Industrial performance in India: A critical review of the empirical evidence, Indian Journal of Labour Economics, Volume 49, Issue 2, pages 211-232.

Bhattacharjea, Aditya (2009), The Effects of Employment Protection Legislation on Indian Manufacturing, Economic and Political Weekly, Volume 44, No. 22, pages 55-62.

Bhattacherjee, D. (1999), Formal Labour and Economic Liberalisation in India: Past, Present and Future, Labour and Society Programme, Discussion Paper No. DP/105/1999, International Institute for Labour Studies, Geneva.

Chaurey, R. (2015), Labor regulations and contract labor use: Evidence from Indian firms, Journal of Development Economics, Volume 114, Pages 224-232.

Das, D.K. (2004), Manufacturing Productivity Growth under varying Trade Regimes, 1980-2000, Economic and Political Weekly, Volume 39, Issue 05, Pages 423-433.

D'Souza, E. (2008), Labour market institutions in India: Their impact on growth and employment, ILO Asia-Pacific Working Paper Series, May 2008, International Labour Organisation, Sub-regional Office, New Delhi.

Datta Chaudhari, M. (1996), Labor Markets as Social Institutions in India, IRIS-India Working Paper No. 10, Centre for Institutional Reform and the Informal Sector, University of Maryland at College Park, March 1996.

Debroy, B. (1997), Labour Market Reform, Policy Paper No. 22, Project LARGE, UNDP, New Delhi.

Deshpande, L., A. N Sharma, A. Karan and S Sarkar (2004), Liberalisation and Labour: Labour Flexibility in Indian Manufacturing, Institute for Human Development, New Delhi.

Dutt, P. (2003), Labor Market Outcomes and Trade Reforms: The Case of India, in R. Hasan and D. Mitra (eds.): The Impact of Trade on Labor: Issues, Perspectives, and Experiences from Developing Asia, Amsterdam: Elsevier, 2003.

Dutta Roy, S. (2004), Employment dynamics in Indian industry: adjustment lags and the impact of job security regulations, Journal of Development Economics, Volume 73, No. 1, February 2004, Pages 233–256.

Dutta, P. V. (2007). Trade Protection and Industry Wages in India, Industrial and Labor Relations Review, Volume 60, No. 2, Pages 268-285.

Dutta, R. (2003), Labor Market, Social Institutions, Economic Reforms and Social Cost, in Shuji Uchikawa (Ed.): Labour Market and Institution in India, 1990s and Beyond, Manohar Publications, New Delhi.

Fagernäs, Sonja. (2010), Labor Law, Judicial Efficiency, and Informal Employment in India, Journal of Empirical Legal Studies, Volume 7, Issue 2, 282–321, June 2010.

Fallon, P. R and R. E. B. Lucas (1991), The Impact of Changes in Job Security Regulations in India and Zimbabwe, World Bank Economic Review, World Bank Group, Volume 5, No. 3, Pages 395 – 413.

Fallon, P. R. and R. E. B. Lucas (1993), Job Security Regulation and the Dynamic Demand for Industrial Labor in India and Zimbabwe, Journal of Development Economics, Volume 40, No. 2, Pages 241 – 275.

Ghose, A. K. (1995), Labour market flexibility and the Indian economy, Indian Journal of Labour Economics, Volume 38, No. 1, Pages 55 – 62.

Ghose, A. K. (1999), Current Issues of Employment in India, Economic and Political Weekly, Volume 34, No. 36, Pages 2592 – 2608.

Goldar, Bishwanath, and Suresh Chand Aggarwal, (2012), Informalization of Industrial Labour in India: Effects of Labor Market Rigidities and Import Competition, The Developing Economies, Volume 50, No. 2, Pages 141-169.

Gordon, J. P. F. and P. Gupta (2004), Understanding India's Services Revolution, IMF Working Papers 04/171, International Monetary Fund.

Goswami, O. (1990), Sickness and Growth of India's Textile Industry: Analysis and PoIicy Options, Economic and Political Weekly, Volume 25, No.44, Pages 2496 – 2506.

Gupta, P., H. Rana and U. Kumar (2009), Big Reforms but Small Payoffs: Explaining the Weak Record of Growth and Employment in Indian Manufacturing, MPRA Paper 13496, University Library of Munich, Germany.

Hasan, R., D. Mitra, and K. V. Ramaswamy (2007), Trade reforms, labour regulations, and labour-demand elasticities: empirical evidence from India, The Review of Economics and Statistics, Volume 89, Issue 3, Pages 466 – 481.

Kapoor, R. (2014), Creating 'Good Jobs': Assessing the Labour Market Regulation Debate, Economic and Political Weekly, Volume XLIX, No. 46, Pages 16 – 18.

Kochhar, K., U. Kumar, R. Rajan, A. Subramanian and I. Tokatlidis (2006), India's pattern of development: What happened, what follows?, Journal of Monetary Economics, Volume 53, Issue 5, Pages 981 – 1019

Mathur, A. (1991), Industrial Restructuring and Union Power: Micro-Economic Dimensions of Economic Restructuring and Industrial Relations in India, ILO, Asian Regional Team for Employment Promotion (ARTEP), Geneva.

Mehta, T.U. (1994), Contribution of Judiciary to Industrial Equity, in D.S. Saini (ed.): Labour Judiciarv, Adjudication and Industrial Justice, Oxford and International Book House Publishing Co., New Delhi.

Mitra, A. (2008), The Indian Labour Market: An Overview, ILO Asia-Pacific Working Paper Series, May 2008, International Labour Organisation, Sub-regional Office, New Delhi.

Nagaraj, R (1994), Employment and Wages in manufacturing Industries: Trends, Hypothesis and Evidence, Economic and Political weekly, Volume 29, No. 4, Pages 177 – 186.

Nagaraj, R (2002), Trade and Labour Market Linkages in India: Evidence and Issues, Working Paper No. 50, East West Centre Working Papers Economic Series, East West Centre, Hawaii, August 2002.

Panagariya, A. (2006), Transforming India, Paper presented at the conference 'India: An Emerging Giant', Columbia University, October 2006.

Panagariya, A. (2007), Why India lags behind China and how it can bridge the gap, The World Economy, Volume 30, Issue 2, February 2007, pages 229 – 248.

Ramaswamy, E.A. (1984), Power and Justice, Oxford University Press, New Delhi.

Ramaswamy, K. V. (2003), Liberalization, Outsourcing and Industrial Labor Markets in India: Some Preliminary Results, in Shuji Uchikawa (Ed.): Labour Market and Institution in India, 1990s and Beyond, Manohar Publications, New Delhi.

Rodrik, D. and A. Subramanian (2005), From "Hindu Growth" to Productivity Surge: The Mystery of the Indian Growth Transition, IMF Staff Papers, Volume 52, Number 2, IMF.

Sakpal, R. S. (2015), Labour Law, Enforcement and the Rise of Temporary Contract Workers: Empirical Evidence from India's Formal Manufacturing Sector, Forthcoming in European Journal of Law and Economics (2015).

Sen, K. (2009), Trade Policy, Inequality and Performance in Indian Manufacturing, Routledge, Taylor & Francis Group, 2009.

Sen, K. and D.K.Das (2014), Where Have All the Workers Gone? The Puzzle of Declining Labour Intensity in Organized Indian Manufacturing, Development Economics and Public Policy Working Paper Series WP No. 35/ 2014, University of Manchester

Sharma, A. N. (2006), Flexibility, Employment and Labour Market Reforms in India, Economic and Political Weekly, Volume 41, No. 21, Pages 2078 – 2085.

Shyam Sundar, K. R. (2015), Industrial Conflict in India in the Post-Reform Period: Who Said All Is Quiet on the Industrial Front?, Economic and Political Weekly, Volume L, No. 13, Pages 43 – 53.

Singh, J. (2015), Who is a worker? Searching the Theory of the Firm for Answers, in Ramamaswamy (ed.) Labour, Employment and Economic Growth in India Cambridge University Press Delhi

World Economic Forum (WEF, 2011), Global Competitiveness Report 2011-12, World Economic Forum, Geneva.

Cases Cited

Air India Statutory Corporation versus United Labour Union (1997) (9) SCC 377

Gammon India Limited versus Union of India (1974) 1 SCC 596, 601

Hindustan Steelworks Construction Ltd. v. Commissioner of Labour and Others (1996) LLR, 865(SC)

International Airport Authority of India versus International Air Cargo Workers Union and another (2009) 13 SCC 374

Steel Authority of India versus National Union Water Front Workers (2001) AIR SC 3527

Uttar Pradesh Rajya Vidyut Utpadan Board versus Uttar Pradesh Vidyut Mazdoor Sangh (2009) 17 SCC 318.320

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