Labour Market Institutions in India – Their Impact on Growth and Employment

Errol D'Souza[*]

[*] Professor, Indian Institute of Management, Ahmedabad 380 015, India. Tel.: +91-79-2630-8357/58. Fax: +91-79-2630-6896. Email: errol@iimahd.ernet.in

Introduction:-

The issue of flexibility in the labour market has attracted a lot of attention in policy debates in India. The lack of flexibility in the labour market is often cited as the reason for poor performance of the labour market in terms of employment generation and productivity growth. A popular view is that increased integration of the economy and technological change require structural change in the organization of production in firms and the lack of flexibility in the labour market does not permit accommodation of this change. It is often pointed out that many labour market institutions such as wage settlements that are binding on whole sectors and dismissal regulations are relevant to only a small part of the workforce in what is called the formal sector which is not expanding at a sufficiently rapid pace. This has led to recommendations that these institutions be altered in order that the allocative function of the labour market be improved. Yet the link between the claimed hindrances to the allocative function of the labour market and the slow growth of the formal industrial sector has only been attempted to be demonstrated in a few select articles that are in approach either empirical or theoretical. This paper reviews this literature and draws lessons about the impact of regulations in formal labour markets on employment and output growth.

The literature has exclusively focused on numerical flexibility - adjustment of the numbers employed in response to fluctuating product market demand - and even thought functional flexibility- the ability of a firm to reallocate employees among a wide rage of tasks and initiate changes in work practices and reorganization of job boundaries - is an important issue (section 9A of the Industrial Disputes Act of 1947) the focus has been more on the effect of labour regulation on output and employment. This is mainly because the path of development envisaged a

reliance on the manufacturing sector to draw surplus labour out of agriculture into more productive employment. The success of labour institutions is thus measured by the effect it has had on generating jobs than whether they have enabled the use of more flexible forms of work organization that are supportive of lean production systems.

Legislation's Effect on Employment:-

The important piece of legislation that has attracted all the attention is the Industrial Disputes Act (IDA) of 1947 which applies to establishments employing fifty or more workers in the organized sector. The IDA was amended under pressure from the trade unions in 1976 and 1982. The 1976 amendment of the IDA requires that if a firm employs 300 or more workers, then the workers cannot be laid off or retrenched without the permission of the government. The 1982 amendment of the IDA made this provision of government permission applicable to all firms employing 100 or more workers. This provision is known as Chapter V-B of the IDA which stipulated prior permission from government for layoff, retrenchment or closure. There is an exception for retrenchment resulting from power shortages or natural disaster but the penalty for retrenchment or closure without permission includes a fine and a prison sentence for the employer. Realizing that the amendments lend themselves to a natural experiment Fallon and Lucas (1991, 1993) argue that if new job security regulations impose higher costs on changing the level of employment, then, the change in employment levels should prove even slower following enactment of the new laws. Secondly, apart from the cost of adjusting the labour force, the new regulations can increase the effective cost of employing a given level of employees and result in diminished employment by the firm. Fallon and Lucas use industry data from the Annual Survey of Industries for the period 1959-

81 and find no change in the speed of employment adjustment but a drop in labour demand after 1976 that is significant at 5 percent in 11 of 35 industries. Their estimates reveal a negative effect on labour demand of job security regulation in 25 out of 35 sectors using a 25 percent level of significance. They conclude that employment would have been 17.5 percent higher in India in the organized sector if there had been no job security provision. This conclusion is not warranted as first the negative estimate on labour demand is significant at only a very high level of significance in a majority of the sectors and second they average the coefficients across all sectors (including the sectors with insignificant coefficients) to obtain an estimate of a 17.5 percent drop in labour demand. Clearly they are drawing the conclusion about the negative impact on job of labour regulation that their estimates do not portray.

In a more systematic and exhaustive study Dutta Roy (2004) reinvestigates the impact of job security legislation on employment. Following the extensive analysis of dynamic models of labour demand discussed extensively in Nickell (1986), observed employment is taken to be the outcome of the optimization procedure adopted by firms, and suitably aggregated. The firm is taken to have a net revenue function $R(N_t, D_t, K_t)$ where N_t is employment, K_t the predetermined capital shock and D_t represents demand shift variables. Inclusion of demand shift variables allows for the possibility of imperfectly competitive product markets and for output price to deviate from marginal cost over the cycle. The firm then chooses employment N_t to maximize the real discounted profit stream

$$\Pi = \sum_{t=1}^{\alpha} \rho^t \left\{ R(N_t, D_t, \overline{K}_t) - w_t N_t - c_t w_t \left[N_t - N_{t-1}(1 - q_t) \right]^2 \right\}$$

Where, w_t is the real wage rate, ρ the real discount factor, c_t the costs of adjustment relative to wages, and q_t the exogenously determined quit rate. The solution to this problem is

$$N_t = \lambda N_{t-1} + (1-\lambda)(1-\alpha\lambda)\sum_{i=0}^{\alpha}(\alpha\lambda)^i N^*_{t+i}$$

Here α is the reciprocal of (1+ real interest rate) and N^*_{t+i} is the optimal level of employment expected to prevail in period $t + i$. λ depends on the adjustment cost c_t, the quit rate q_t, and the discount factor, α. The above equation represents the optimal plan the firm would follow for N, taking the current value of c_t and q_t as given for the future. The firm does not use any particular method for forecasting c_t and q_t and if they change in the beginning of a period a new optimal plan is formed embodying a different value of λ. Given a constant long run real rate of interest we could write

$$\lambda_t = \lambda(c_t, q_t) \qquad\qquad \lambda_1 > 0, \lambda_2 < 0$$

The effect of a rise in adjustment cost is to raise λ and to slow employment adjustment $(\lambda_1 > 0)$, and a high quit rate fastens employment adjustment $(\lambda_2 < 0)$. A high value of λ thus entails slow adjustment. Dutta Roy modifies the above employment equations to derive estimates for it for 16 industry groups of Indian manufacturing over the period 1960-1994. These 16 industry groups accounted for over 77% and 84% respectively of total employment and value added of the registered manufacturing sector. Dutta Roy first demonstrates the existence of significant rigidities in employment adjustment in the Indian labour market. For 10 industries the response of workers to a disequilibrium in the industry's own market in the preceding period is insignificant. These

industries include chemicals & chemical products structural clay products, miscellaneous food products, sugar, paper and paper products, no-electrical machinery, electrical machinery railroad equipment and motor vehicles. Barring cement and non-ferrous basic metals where about 90% of the disequilibrium arising in any period is corrected in the subsequent period, the average for the four other industries- iron and steel, rubber and rubber products, textile products and tobacco- is less than 40%. The results reveal that across all industries it takes on an average about 5-6 years for most of the adjustment to be completed. This evidence of rigidities in adjustments is also found by Bhalotra (1998) who shows that it takes time to adjust employment- in her study it was estimated that it takes almost 6 years in Indian factories for 90 percent of the adjustment in employment to its optimal level to be completed. This rigidity in employment also calls into question the Fallon and Lucas conclusion about the fall in employment that coincides with the time of the amendment to the IDA in 1976. It also supports the argument made by Nagaraj (1994) that the 1970s were a period of labour hoarding. We return to this issue later.

Dutta Roy then investigates whether the rigidities in employment are due to the inherent characteristics of the industries or whether job security regulations have exacerbated the rigidities. She investigates whether the pre and post 1976 and pre and post 1984 periods when the IDA amendments came into effect results in an enhancement of flexibility and a change in the adjustment coefficients after the implementation of the new job security regulations. Prior to the amendments in job security regulations ten industries were characterized by rigidities in adjustment. Seven of these did not reveal any change due to changes in job security regulations- textile products, miscellaneous food products, tobacco, non-electrical machinery, railroad equipment, motor vehicles, and paper and

paper products. The net impact of job security regulations amendments of 1976 and 1982 is ambiguous in the case of two industries- petroleum refinery products and sugar- and it is favorable in the structural clay products industry. By contrast six industries showed flexibility in employment in the pre job security regulation amendment period. The amendments did no have any impact on employment practices in three industries- iron and steel, chemical and chemical products, and rubber and rubber products. In two industries - non ferrous basic metals and electrical machinery - amendments to job regulations favorably impacted on employment flexibility, whereas in the sole case of the cement industry flexibility was impaired as a result of labour market regulations. The results indicate that a major proportion of industries reveal rigidities attributable to industry-specific characteristics and the imposition of job security regulations is not the primary cause of observed rigidities in employment adjustment in the registered manufacturing sector.

Intermediation of Other Factors:-

The question that arises, however, is whether job security regulations were responsible for a high rate of growth of wages which in turn adversely impacted on employment. This possibility needs to be considered given that there was a mismatch between output growth in the 1980s and employment growth. Indeed the World Bank (1989) and Ahluwalia (1991) explain the employment decline as a result of a high rate of growth of wages. The World Bank (1989) study calculated a 5.7 percent decline in employment on account of wage growth in the 1980s. However, this estimate overlooks the fact that employers can match staffing to workload fluctuations through two routes:

1) by adjusting the numbers employed

2) by adjusting the number and timing of hours worked

The former is akin to a flexibility on the extensive margin- the flexibility of numbers derived from the ability to adjust the headcount. Here additional workers can be returned to the external labour market when work levels fall and their services are no longer required. Flexibility on the intensive margin by contrast can be achieved without changes in employment levels through changes in the timing of working hours (work-time flexibility) or through changes in the range of tasks employees perform (functional flexibility). Looking at the period 1979-87 Bhalotra (1998) found that actual hours grew at a trend rate of 1.64 percent p.a. and this was significantly different from zero in 14 of the 18 industries in the sample. The increase in time worked from 1979 to 1987 was equivalent to a shift from a 5 to a 6 day week. Thus a sixth of official working time was being lost in 1979 and this was recuperated over the course of the 1980's. The significant increase in days worked per worker implies that rapid rises in earnings (wage rates per day multiplied by days worked) translates into a lower growth in wage rate. Apart from hours of work Bhalotra argues that the Bank omits other variable that affect employment such as productivity and cyclical demand effects. These omissions are serious especially as the period was marked out by a growth in productivity (Ahluwalia, 1991). The specification implies that employment may written as a function of output (Y), real wages (w), productivity (A), hours worked, (H), and cyclical demand effects (D), or,

$$N = f(Y, w, A, H, D)$$

Estimating this equation it was found by Bhalotra (1998) that the trend wage growth of 4.2 percent p.a. during the 1979-87 period implied a decline in employment of 1.18 percent p.a. which is substantially smaller

than the 5.7 percent p.a. decline featured in the World Bank report. The growth in work intensity (*H*) has a strong negative effect on employment and total factor productivity (*A*) also exercises a powerful drag on employment. Bhalotra also finds that capital accumulation exerts a strong positive effect on employment – the effect of capital accumulation on employment growth is that it more than offsets the adverse impact on employment due to growth in work intensity and efficiency associated with technical progress. If we ignore cyclical fluctuations and concentrate on trends, then, if no capital accumulation had taken place the employment decline of the period can be attributed 26 percent to be due to the increase in wage rates, 15 percent to work intensification, and 59 percent to technical progress that is labour augmenting and makes labour more efficient resulting in a lesser requirement of labour per unit of capital. Capital accumulation effects on employment are so strong that they dampen most of these negative effects on employment- employment that would have declined by about 7.13 percent p.a. without capital accumulation ended up declining by just about 0.3 percent p.a. over the period.

The growth in wages would be associated *ceteris paribus* with employment decline and so we concentrate on the increase in productivity (efficiency) and the increase in work intensity. What affects work intensity and productivity? Nagaraj (1990) argues that infrastructure investment increased in this period and this could be responsible for recuperation of time losses on account of power shortages and materials shortfalls. Trade liberalization also resulted in improved access to technology, spare parts and inputs. Ahluwalia (1991) argues that the reforms encouraged technological upgrading and modernization and this spurred productivity growth and efficiency in registered manufacturing. Bhalotra (1998) also argues that the reforms generated

uncertainty about their future course and given costly employment adjustment employers favoured additional hours over additional workers. Moreover, as the growth in hours constituted recuperation of lost time rather than overtime, increasing hours was a cost effective way of responding to the competition unleashed by the reforms.

The scenario in the 1990s bears this out. We find a recovery in employment in organized manufacturing upto 1996. After that till 2001 approximately 1.3 million employees lost their jobs and employment in 2001 at 5.7 million workers was roughly the same as it was in the beginning of the 1990s (Nagaraj, 2004). Apart from beverage and tobacco, textile products, and chemicals and other manufacturing, all industry groups witnessed a decline in employment during 1996-01. The real wages per worker were stagnant in the 1990s and the growth in output was associated with a rise in productivity per worker. So the decline in work intensity in the early 1990s reversed by 1997 and the growth in work intensity and productivity in the latter half of the 1990's contributed to the decline in employment. In the 1980's capital accumulation offset the growth in work intensity and productivity. After 1996, however, the investment boom that had occurred in the first half of the 1990s accompanied by a buoyant stock market, petered out as financial markets went into a decline. The decline in capital formation in the later half of the 1990s was the single most important factor behind the decline in employment growth of that period. Gross domestic capital formation that was 26.9 percent of GDP in 1995-96 had declined to 22.6 percent of GDP by 2001-02. This fits with the estimates of Bhalotra who had shown the offsetting impact that capital accumulation had on work intensity and efficiency for employment generation.

Implementation Effects at Decentralized Levels:-

That job security regulations are passed at the central level but state governments have the right to amend them under the Indian constitution implies that state government amendments to labour regulations could have an important impact on explaining their manufacturing performance. Besley and Burgess (2004) follow up this lead and read the text of each state amendment to the Industrial Disputes Act of 1947 and classify each as pro-worker, pro-employer, or neutral. Each pro-employer amendment (e.g. prohibiting strikes to maintain industrial peace) is coded as a minus one, each neutral amendment as a zero, and each pro-worker amendment (e.g. time frame for workers to receive payments on being laid off being reduced) is coded as a one. After obtaining the direction of amendments in a given year in this fashion, they then cumulate the scores over time to give a quantitative picture of how the regulatory environment evolved over time. They use this as their measure of labour regulation. They then develop an econometric analysis of whether labour regulation can account for the cross state pattern of manufacturing performance between 1958 and 1992. They find that states with more pro-worker legislation have lower levels of employment in registered manufacturing.

The four pro-worker states that Besley- Burgess identify on the basis of the index they develop are Gujarat, Maharashtra, Orissa and West Bengal. Maharashtra and Gujarat are two of India's most industrialized states and are perceived as good locations for setting up manufacturing plants. It needs to be explained as to why these two states are considered as priority states for industrial establishments if they are pro-labour. Conversely Kerala which cannot claim a comparable industrial relations climate is identified as pro-employer and hardly

attracts manufacturing activity. Second, a survey on investment climate faced by manufacturing firms (Dollar, Iarossi and Mengistae, 2002) indicated that whilst in all states firms indicated that there was over-manning and that they would like to reduce employment the extent of over manning reported was lowest in Maharashtra and Gujarat. Third, there is a need to make a distinction between legislation and enforcement in the context of a developing society. The Dollar, Iarossi and Mengistae (2002) study found that small and medium enterprises received twice as many factory inspections a year in states like Kerala (classified as pro-employer by Besley-Burgess) as did states like Maharashtra and Gujarat (classified as pro-employee). Fourth, states like Andhra Pradesh, Rajasthan and Tamil Nadu that had been classified as pro-employer have had declining secondary sector employment elasticities in the recent reforms period (1994-2000) compared to the 1984-94 period whereas pro-employee states such as Maharashtra, Gujarat and Orissa have witnessed an acceleration in secondary employment during this period (their employment elasticities have increased) - see Table 12 of Bhattacharya and Sakthivel (2003). The classification of states as being pro-labour or pro-employer as done by Besley-Burgess thus is at variance with the way these states should have performed or been considered as manufacturing destinations by firms.

The econometric analysis of Besley-Burgess also throws up questionable results. They do panel regressions for 16 states over the period 1958 to 1992. The dependent variable is the log of registered manufacturing output per capita or the log of total employees and this is regressed on their measure of labour regulation, other exogenous variables such as development expenditure per capita, installed electricity capacity per capita, etc., a state fixed effect (to capture state specific factors) and a year fixed effect (to capture common shocks such

as central government amendments to the Industrial Disputes Act). Though they cluster their standard errors by state to deal with serial correlation concerns the high values of R^2 they get of over 0.92 indicate the problem might persist. In a panel regression it is well known that systematic unobserved temporal effects can be quite important and to take care of this the regression is estimated with a time trend on the right hand side. The estimates with and without this time trend are reported in Table I below:

Table I: Estimated effect of various factors on log registered manufacturing output per capita		
Technique	OLS	OLS with state time trends
Independent Variables		
Labour regulation (t-1)	-0.014[*]	0.0002
	(2.67)	(0.01)
Log development expenditure per capita	0.184	0.241[**]
	(1.55)	(2.28)
Log installed electricity capacity per capita	0.082	0.023
	(1.51)	(0.69)
Log state population	0.310	-1.419
	(0.26)	(0.61)
Congress majority	-0.0009	0.020[**]
	(0.09)	(2.08)
Hard left majority	-0.050[*]	-0.007
	(2.97)	(0.77)
Janata majority	0.008	-0.020
	(0.34)	(0.60)
Regional majority	0.006	0.026
	(0.70)	(1.11)
Adjusted R^2	0.94	0.95
Observations	491	491
Source: Besley and Burgess (2004)		
N.B.: Figures in brackets are t-statistics. * denotes significant at 1 percent and ** significant at 5 percent.		

It turns out that once the time trend is introduced labour regulation no longer is a significant variable in the explanation of manufacturing output and employment. Instead now development expenditure which is state spending on social and economics services

(health, education, infrastructure and administration) is the driving variable that explains output growth amongst states. In Indian states public expenditure is know to crowd in private capital formation (Athukorala and Sen, 2002) and as we saw earlier it is capital accumulation that has the biggest impact on employment growth in India (Bhalotra, 1998). Besley- Burgess, however, conclude- "The fact that our results are not robust to state-specific time trends does raise the question of whether the effects that we are picking up are those due to labour regulations *per se* or the consequences of a poor climate of labour relations- union power and labour/management hostility- which affect the trend rate of growth within a state. This goes to interpretation of the finding" (Besley and Burgess, 2004, p. 125). Yet they conclude that the "analysis suggests that labour market institutions in India have had an important impact on manufacturing development". The estimation techniques used by Besley and Burgess is also questionable. They estimate by OLS which is likely to lead to unsatisfactory estimates. In practice actual employment deviates from its desired level due to adjustment costs associated with training, hiring and firing. Besley and Burgess recognize this: "Labour regulation will typically create adjustment costs in hiring and firing labour..." (p.101). In that case employment and output will depend on its lagged values. We have already seen that it takes almost six years for adjustments in employment to be completed (Bhalotra, 1998). As a result employment and its lagged values will be functions of the state fixed effects making OLS estimates biased and inconsistent. In addition, unobserved state characteristics may well be correlated with one or more of the other regressors. One of the ways to proceed then is to first difference the regression equation to get rid of the correlation between the state fixed effect and lagged values of employment (or output) and other right hand side variables and then to use an instrument for the lagged, differenced

employment (or output) term as it would be correlated with the transformed error term in the regression. The generalized method of moments estimator proposed by Arellano and Bond (1991) uses such a procedure to provide consistent and efficient estimates and such a procedure was warranted instead of the OLS used by Besley and Burgess.

Composition of Contracts in Formal Sector:-

It is well know that factories in India employ both regular and casual workers as the adjustment costs for the former would be larger than for the latter. Thus, in addition to varying work intensity firms take care of cyclical fluctuations by varying the composition of the workforce as between permanent and non-permanent employment. In India Ramaswamy (2003) reports that in the formal sector the share of contract workers rose from 12 percent before the reforms to above 16 percent by the end of the 1990s. Despite job security regulations firms are able to vary employment by varying the composition of the contracts (permanent versus non-permanent) offered to the workforce. This means that employment flexibility is quite pronounced even if it could be claimed that the regulatory environment is quite stringent. Deshpande, Sharma, Karan and Sarkar (2004) conducted a study of employment practices in a sample of 1307 factories belonging to 9 industries and 10 states in 1998. They found that between 1991 and 1998 small establishments employing 10-19 and 20-49 workers increased their employment fastest at approximately six percent per annum. However, restrictions of firing (that apply to larger firms) could not have been a factor impacting on employment decisions because firms employing between 200 and 499 workers increased employment at only a slightly lower rate of 5.28 percent. Again, some employers- 13 percent of the

respondents- did not change their employment over the period 1991-98 whereas 27 percent reported fewer employees and 60 percent increased employment. That the same regulatory set up allowed some to decrease and others to increase employment implies again that regulation is not important to hiring and firing decisions. Deshpande, Sharma, Karan and Sarkar also found that the share of permanent workers declined over the years of liberalization and that the larger the firm the higher is the share of non-permanent temporary and casual workers (Table 4.1 in Deshpande *et al*, 2004). One would have expected the industrial relations climate and type of political incumbent to have an effect on the propensity to employ non-permanent workers. Deshpande *et al* find that Kerala and Bengal can be clubbed with Maharashtra in having lower growth in non-permanent employment which implies that it is not just the existence of unions but the effectiveness of administration that is the binding factor. Despite the high unionization Kerala for instance has witnessed a growth in employment in the secondary sector in the latter half of the 1990s that is higher than the all India average (Bhattacharya and Sakthivel, 2003).

Besley and Burgess by concentrating on labour regulation implicitly assume that enforcement is costless and complete. Legal rules comprising regulation do not specify the least cost method of ensuring that legal standards are adhered to. Typically enforcement rarely takes a penal form and legal actions are invoked selectively. Mostly the enforcement system is one of compliance with direct negotiations and bargaining between enforcement official and violator which results in discretionary flexible enforcement that takes into account the offender's difficulties in complying with the law. As regulatory politics scholars emphasize (Hutter, 1989) there is a distinction between a deterrence model of enforcement where firms that violate administrative laws are

sought to be punished and a bargaining model where enforcement is more discretionary and seeks to persuade regulated firms to improve their performance. That establishments were able to vary their employment and that the share of permanent workers declined over the 1990s indicates that there is a variability in enforcement that is important to determining employment. Moreover, as Harriss-White (2003, p.18) puts it: "In practically every 'organized' firm, including state-run corporations, unorganized labour is selectively incorporated into the labour process". The proportion of unorganized labour in the corporate sector has been estimated to be between 40 and 85 percent (Bhowmik, 1998). In a survey of registered firms in the garment industry in Ahmedabad it was found that 50 percent of workers did not have written contracts and about 10 percent did not receive any benefits (Jhabvala and Kanbur, 2004). It is because enforcement is discretionary that this is possible.

In order to employ unorganized labour in a registered firm, some cost to circumvent enforcement has to be incurred. If there was no circumvention cost the firm could employ at the competitive wage in the informal sector, w_I. Without loss of generality let the marginal circumvention cost per unit of labour be linear in the employment of such labour, i.e., cL_I. Then, the marginal cost of employing labour on informal contracts is $w_I + cL_I$. Higher levels of enforcement will result in a larger value of *c*. If all labour were to be employed on these contracts then the interaction of the marginal cost of informal contract labour curve $w_I A$ and the marginal revenue productivity or demand curve *BC* would determine the extent of informal employment at point *E* (Figure I). However, workers on formal contracts are able to bargain a higher wage w_F than the informal wage say due to unionization or by resorting to influences on establishments through the apparatus of the state which

intervenes in the labour market to strengthen the position of workers due to its past historic association with organized labour in the Independence movement and its goals of establishing a socialist and equitable society. We would expect formal wages to be increasing in prices as workers seek to protect real wages and in circumvention costs as higher circumvention costs imply that workers on formal contracts can leverage the better climate of enforcement to bargain for higher wages. The firm accordingly employs *OM* workers on informal contracts and *MN* on formal contracts.
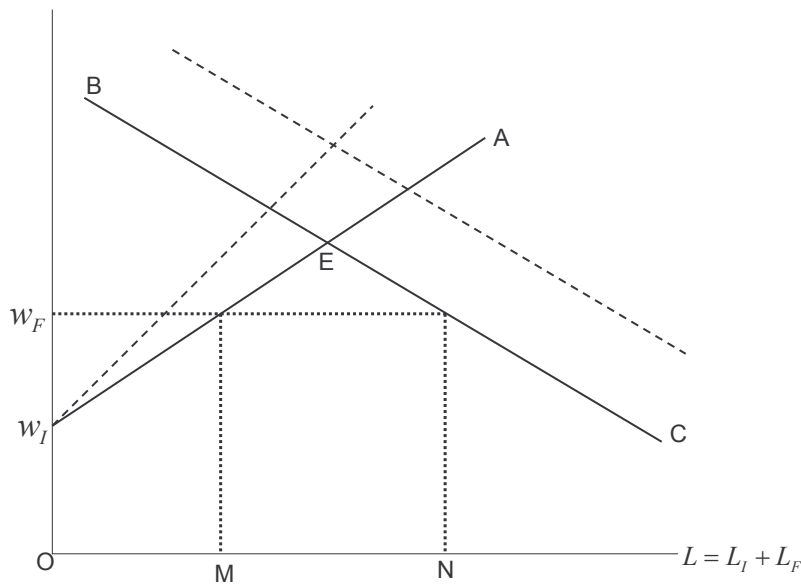

<u>Figure I: Formal and Informal Contracts in Registered Firms</u>

The figure above indicates that if enforcement increases the curve $w_I A$ will rotate counterclockwise – the dashed line beginning at w_I. Total employment would decline but informal employment could even increase if the formal wage increased sufficiently in response to the increase enforcement so as to cause a substitution of formal contract workers with informal contract workers by the firm. The point of interest here is that differences in enforcement result in differences in employment.

We could also interpret the parameter *c* as more stringent regulation that is pro-labour in the spirit of Besley-Burgess and conclude that less employment is associated with pro-labour regulation. However, that is an argument that does not pose the counterfactuals appropriately enough. If there is a rise in capital accumulation the demand for labour curve shifts to the right and employment increases. The empirical data points to employment growth being associated with capital formation (Bhalotra, 1998) and as demonstrated by Ramaswamy (2002) it was the liberalization of capacity licensing and entry regulation that led to high rates of capital formation and employment especially in import-competing industries like consumer durables. Employment may not have grown in India pre-liberalization because capacity constraints imposed by a system of industrial licensing did not allow the demand for labour curve *BC* to shift out to the position of the dashed line on its right. In India lending by banks and development financial institution was also often by virtue of the fact that the establishment had been issued a license by the government. In such a situation employment growth was more a function of imposed capacity constraints than labour regulation.

The conventional view is that job security regulations and unions are the main cause of rigidity and unemployment. The restriction on firing is in this view akin to generating rents equal to the welfare difference between an employed and an unemployed worker. These restrictions increase workers' bargaining power by making it more difficult for employers to resist wage demands by refusing to employ the workers any longer. Firing costs are a device to protect the rents of incumbent employees. However, the historical line of causation is the reverse- job security regulations which are blamed for rigidities in the labour market were often instituted as a response to the threat of unemployment and income insecurity. The arrival of organized labour on

the Mumbai scene for instance goes back to 1917 when there was a wave of large scale strikes in textiles and other industries in response to the erosion of income due to wartime inflation. The inter-war period saw many strikes where workers joined campaigns but drifted away once the strikes were over. The colonial state, however, intervened on the part of labor and passed the Trade Disputes Conciliation Act of 1934 and appointed Labour officers to mediate in disputes. As that was a period of economic depression with unfavourable conditions for bargaining state involvement in labour relations was welcomed by workers as more beneficial to them than the returns possible through unions. Trade unions in turn embraced the state (Sherlock, 2001) and this was not driven by rent seeking as much as a search for social insurance. As stated by Datta-Chadhuri (2000)- "The modalities of labour use in the organized sector in India are dictated primarily by the state, not by the market or by the results of collective bargaining….The state plays a dominant role through labour laws, labour judiciary and administrative officers to administer social justice keeping in view the power position and susceptibilities of workers….to eventually lead to a just industrial society." Given that human capital is the most important asset for most individuals in India the demand for insurance against labour income risk translated into a demand for job security which was accommodated by the state in a situation where insurance markets for such needs do not exist. "The paramount concern of Indian workers, and thus of their trade unions, relates to the question of job security" (Datta-Chaudhuri, 2000) and this risk aversion towards unemployment and income insecurity lies behind institutions like chapter V-B of the IDA. The foundation of the idea is social insurance and not rent seeking. Today job security may create efficiency losses but it should not be lost sight of that it also creates insurance benefits that are probably substantial (and unmeasurable) and may even offset the efficiency losses. Of course, it

may be objected that if labour market risk is so all encompassing, then, why can't we leave it to firms and employees to take care of it themselves through insurance contracts and wage bargains. We turn to this next.

State Intervention and Markets:-

Basu (2002) argues that legislation against retrenchment or dismissal of labour as in the IDA of 1947 can backfire because of failure to distinguish between what is good *ex ante* and what is good *ex post*. A law that makes retrenchment difficult is of course good for workers who are already employed. However, firms will be more wary of employing workers making labour a less valuable input and decreasing the demand for labour. As a result wages will fall and workers who benefit from more secure jobs lose out by having lower wages. Thus workers may be worse off as a result of legislation meant to make them better off. A formal statement of this argument is in Basu, Fields, and Debgupta (2001). Basu recommends on this basis that contracts between firms and employees should not be exogenously fixed by law (such as the restrictions on firing) but that there should be free contract between workers and firms which depending on preferences (including risk aversion) would see some contracts with low wages and long tenure for employees and some contracts with high wages and firing rights with employers. This argument that free contract leads to efficiency is an outcome of the traditional, perfectly competitive story in which workers and firms implicitly bargain for the efficient level of employment security. This is a very unsatisfactory way of carrying out the analysis because in a competitive model when wages adjust the unemployment rate remains unchanged or zero.

A satisfactory model for the analysis of employment protection must be able to demonstrate not only that wages are endogenous but also that equilibrium unemployment is possible because labour markets like credit markets do not clear. Such an explanation is provided by efficiency wage models. In one variant of these models workers are paid in excess of their marginal contribution and reservation wages in order to reduce shirking and increase labour productivity at the risk of involuntary unemployment (Shapiro and Stiglitz, 1984). In another version which is the deferred payment incentive version, the wage is initially less than the worker's marginal product and then increases as tenure in employment increases in order to induce effort over time. In both variants the threat of termination and loss of the efficiency wage deter employee shirking. However efficiency wage models also do not consider the possibility that when efficiency wages exceed worker's marginal contributions, firms have an incentive to terminate workers before the wages are paid. The response to this moral hazard is to introduce employment protection. Hence, labour protection laws may be necessary to deter employer opportunism.

The problem is best addressed in a simple two-period framework. At time t_0 the firm and the worker agree to a contract to be executed in period t_1. The contract states that the firm will pay the worker $(w > 0)$ if the worker expends effort $(e > 0)$ but the worker will be terminated from service without compensation $(w = 0)$ if the worker is caught shirking $(e = 0)$. The worker's disutility of effort is e. The effort provided by the worker is not easily observable by the employer or verifiable by a third party such as a court. The output generated due to the effort expended by the worker, however, is observable and verifiable.

At time t_1 the worker has the options of either working or shirking. If effort is expended the firm's gross benefit is y and if the worker shirks then expected output is py where $(1-p)$ is the probability of detecting a shirking worker. The firm also has two options before it- to fulfill the contract or to behave opportunistically and terminate the worker. If the firm is opportunistic and the contract is terminated by it then it captures the full rents generated from the employee's efforts. If the firm honors the contract it pays the worker for effort or fires a shirking worker detected with probability $(1-p)$. Hence, the worker can be dismissed for two reasons- employer opportunism and verifiable shirking. The expected payoffs of the firm are in the lower left-hand corner of each cell in Table II and that of the worker in the upper right hand corner of each cell.

Table II: Efficiency wages when Firms and Workers are Opportunistic		WORKER	
		Work	**Shirk**
FIRM	**Honour Contract**	$w - e$	pw
		$y - w$	$p(y - w)$
	Terminate	$- e$	0
		y	py

The Table II depicts the opportunism faced by both firms and workers. The worker has an incentive to shirk if the wage is too low and monitoring is imperfect and the firm has an incentive to exploit the worker. When both firm and worker anticipate the other will behave opportunistically the worker will shirk and the firm will fire the worker and neither benefits from engaging in a contract. Employer reputation effects may result in the efficient contractual outcome where workers supply effort and firms honour the contract and compensate workers. But to expect all firms to have reputational capital is unwarranted and so employment protection legislation can play the role of restraining

opportunistic behaviour by firms and workers. Of course, it must be kept in mind that labour protection laws can reduce the effectiveness of efficiency wages and reduce worker productivity if it is a blunt instrument. An employment protection legislation whilst alleviating the worker's fear that he may be opportunistically terminated must at the same time allow the firm to terminate the worker if he is caught shirking. If there is verifiable evidence of shirking then legislation should be such as to induce the expectation in the worker that termination of his services will occur.

There of course is the second variant of efficiency wages where workers are given deferred payments in order to elicit a performance bond in the form of effort over time (Lazear, 1981). Here even if the worker is fired with verifiable evidence he loses compensation due to him in the future. Also, the fact that compensation is deferred gives an incentive to employers to terminate services before the full term is served. To safeguard against this type of opportunism contractual safeguards in the form of a penalty on the firm in case of premature firing is called for. This function is typically performed by severance packages which specify a fraction of the worker's contractually established wage benefits to be paid to the worker if the firm chooses to terminate his services. In the product market when firms may behave opportunistically with respect to quality warranties are used to signal quality attributes. Similarly in labour markets when firms *and* workers may behave opportunistically *third-party* enforcement of employment protection legislation is called for. This legislation should not be written in stone but accommodate firing in case shirking by workers is established and severance payments in case firms wish to terminate workers regardless of shirking.

Employment protection involves a whole range of measures apart from severance payments. These are designed so as to limit the employer's ability to dismiss workers without delay or cost. The idea is to protect both workers and employers from opportunistic behaviour - tying their hands so as to make both better off by deterring them from short-termism. Some forms of employment protection need not entail immediate financial gains to either party. Administrative procedures such as writing to an employee concerned giving reasons for dismissal, specifying lengths of time that the employer has to wait for a response, and notices of termination where the length of notice varies by tenure and includes a cooling off period during which the notice may be issued but not become effective, etc., are employment protection measures that do not entail a direct transfer from the employer to the worker. These are often wise to include in employment protection legislation so as to delay dismissals and induce employers to negotiate over termination and not behave opportunistically. One could argue that this increases job tenures and gives power to established workers with adverse effects on job creation. However, given opportunism, the only way that workers and firms will invest in a job is if there are speed breakers to opportunism. The unintended consequence that this may reduce turnover is an outcome that is an indirect cost of the gains to protection. Employment protection is usually thought of as creating redistribution towards labour, especially established workers, and is held responsible for creating rent seeking and efficiency losses. However, such policies also create immense insurance benefits by deterring opportunism. The challenge is to ensure that the efficiency losses are contained whilst the insurance gains are furthered. Employment protection should not be so rigid that it prevents change and preserves the status quo. It should not be so blunt that it is unable to distinguish between termination for shirking and opportunistic termination. Serious employment protection

is counter productive when it is protectionist to vested interests and does not promote economic progress. Datta-Chaudhuri (2001) appropriately quotes Justice Mehta, a former Chief Justice of a High Court, when he states that the view taken by many judgments "that to favour labour is the only goal of the statute (the IDA) is counter productive in as such as it ultimately harms the cause of labour itself."

Conclusion:

Indian governments have intervened in organized labour markets to strengthen the position of workers vis-à-vis employers. The government has been central to the implementation of labour laws with contractual rights being regulated by it and not in civil courts or labour tribunals. Job security regulations have been central to government interventions in the labour market. Their impact on employment and output growth in the registered manufacturing sector is important because a measure of success in development is the extent to which the manufacturing sector is able to draw surplus labour out of agriculture. Amendments to the legislation in the form of the Industrial Disputes Act have provided opportunities to study the impact of job security legislation on employment and output. The empirical evidence suggests that job security legislation in India has not deterred employment growth. Rigidities in employment adjustment - it takes about 5 to 6 years for employment adjustment to be completed – are more due to the inherent characteristics of the industries than due to job security regulation.

Employers in India in the 1980s that has been termed the period of jobless growth matched staffing to workload fluctuations by adjusting the timing of hours worked (work-time flexibility). The increase in time

worked from 1979 to 1987 was equivalent to a shift from a 5 to a 6 day week. At the same time productivity increases due to infrastructure investment and trade liberalization increased the efficiency of labour whilst reducing its requirement per unit of capital. Capital accumulation, however, has been the driving force that has offset the negative effects of the growth in work intensity and productivity. Empirical work in the 1990s confirms this. Also, apart from work intensity firms have managed to be flexible by changing the composition of contracts via changes in the share of permanent to non-permanent temporary and casual workers. .

Implementation of labour legislation is a state subject and states can amend central legislation. However, identifying state amendments as being pro-labour or pro-employer is a task that can result in paradoxes. Maharashtra and Gujarat in one exercise are labeled as pro-worker states when another study reports the extent of over manning in these states as being the lowest. These states are also perceived as good locations for setting up manufacturing units. Also, it is not just the legislations, but the enforcement that is crucial to the extent to which firms are deterred by labour legislation. More stringent labour legislation and/or better enforcement can both deter employment generation. However, at the same time as labour legislation was being tightened regulations on entry and capacity made the licensing system and capacity constraints the main constraint on expansion of firms in the registered manufacturing sector. Delicensing along with capital accumulation affected employment growth more than labour legislation.

Job security regulations are often seen as a source of rigidity and resulting in rents for organized labour. However, these regulations often emerged as a response to the threat of unemployment and income insecurity and are more a social insurance than rent seeking. Moreover,

markets if left to themselves will not be able to device contracts that provide an efficient level of employment security. In a temporal world if workers tradeoff working with shirking, employers can similarly tradeoff honoring a contract with termination of employees. Opportunistic behaviour is often difficult to observe or to verify. In product markets opportunism can be nipped through signals such as the offer of warranties. In labour markets both firms and workers are susceptible to opportunism and verifying breach of contract is difficult. A meaningful way to get workers to invest in a job and employers to honour contracts is to legislate employment protection. The difficult task, of course, in reality is to ensure that employment protection does not become protectionist and an enemy of economic progress.

BIBLIOGRAPHY:-

Agrawal, P. (2000) – Labour Policies, Employment and Worker Earnings: Indian and International Experiences", in Satu Kähkönen and Anthony Lanyi (ed.) – "Institutions, Incentives and Economic Reforms in India", Sage Publications, New Delhi, pp. 469-502.

Ahluwalia, I.J. (1991) – "Productivity and Growth in Indian Manufacturing", Oxford University Press, New Delhi.

Arellano, M. and S. Bond (1991) – "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations", Review of Economic Studies, Vol. 58, pp. 277-97.

Athukorala P. and K. Sen (2002) – "Saving, Investment, and Growth in India", Oxford University Press, New Delhi.

Basu, K. (2002) – "Ideology, Economics and Labour Market Policy", in Rakesh Mohan (ed.) – "Facets of the Indian Economy – The NCAER Golden Jubilee Lectures", Oxford University Press, New Delhi, pp. 248-264.

Basu, K., G.S. Fields and S. Debgupta (2001) – "Retrenchment, Labor Laws and Government Policy: An Analysis with Special Reference to India", Paper written for the World Bank, Shrinking Smartly Research, Washington D.C.

Besley, T. and R. Burgess (2004) – "Can Labor Regulation Hinder Economic Performance? Evidence from India", Quarterly Journal of Economics, February, pp. 91-134.

Bhalotra, S. (1998) – "The Puzzle of Jobless Growth in Indian Manufacturing", Oxford Bulletin of Economics and Statistics, 60(1), 5-32.

Bhattacherjee, D. and T. Datta Chaudhuri (1994) – "Unions, Wages and Labour Markets in Indian Industry, 1960-86", The Journal of Development Studies, 30(2), 443-465.

Bhattacharya, B.B. and S. Sakthivel (2003) – "Economic Reforms and Jobless Growth in India in the 1990s", The Indian Journal of Labour Economics, 46(4), 845-865.

Bhowmik, S.K. (1998) – "The Labour Movement in India: Present Problems and Future Perspectives", The Indian Journal of Social Work, 59(1), 147-166.

Burgess, R. and A.J. Venables (2004) – "Toward a Microeconomics of Growth", Annual World Bank Conference on Development Economics, The World Bank and Oxford University Press, New York, pp.105- 139.

Dasgupta, I. and S. Marjit (2004) – "Evasive Reform: Informalisation in a Liberalised Economy with Wage-setting Unions", EGDI and UNU-WIDER Conference on "Unlocking Human Potential: Linking the Informal and Formal Sectors", 17-18 September, 2004, Helsinki.

Datta-Chaudhuri, M. (2000) – "Labour Markets as Social Institutions in India", in Satu Kähkönen and Anthony Lanyi (ed.) – "Institutions, Incentives and Economic Reforms in India", Sage Publications, New Delhi, pp. 449-468.

Davala, S. (ed.) (1992) – "Employment and unionization in Indian industry", Friedrich Ebert Stiftung, Delhi.

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

Deshpande, S. (2003) – "Changing Employment Structure in Large States of India: What do the NSSO data show?" The Indian Journal of Labour Economics, 46(4), 811-844.

Dollar, D., G. Iarossi, and T. Mengistae (2002) – "Investment Climate and Economic Performance: Some Firm Level Evidence from India", Development Research Group, The World Bank, Working Paper No. 143.

D'Souza, E. (1997) – "Labour Demand and High Development Theory", Economic & Political Weekly, Vol. XXXII No. 48.

D'Souza, E. (2001) – "The Relationship between Capital Markets and Human Resource Policies: Some Consequences of Flexibility", Twelfth IFCI Annual Lecture, University of Mumbai, mimeo.

Dutta Roy, S. (2003) – "Employment dynamics in Indian industry: adjustment lags and the impact of job security regulations", Journal of Development Economics, 73, 233-256.

Fallon, P.R. and R.E.B. Lucas (1991) – "The Impact of Changes in Job Security Regulations in India and Zimbabwe", The World Bank Economic Review, 5(3), 395-413.

Fallon, P.R. and R.E.B. Lucas (1993) – "Job security regulations and the dynamic demand for industrial labour in India and Zimbabwe", Journal of Development Economics, 40, 241-275.

Harriss-White, B. (2003) – "India Working – Essays on Society and Economy", Cambridge University Press, U.K.

Hasan, R., D. Mitra, and K.V. Ramaswamy (2003) – "Trade Reforms, Labor Regulations and Labor-Demand Elasticities: Empirical Evidence from India", NBER Working Paper 9879.

Hutter, B. (1989) – "Variations in Regulatory Enforcement Styles", Law and Policy, 11, 153-174.

Jenkins, R. (2004) – "Labor Policy and the Second Generation of Economic Reform in India", India Review, 3(4), 333-363.

Jhabvala, R. and R. Kanbur (2004) – "Globalisation and Economic Reform as Seen from the Ground: SEWA's Experience in India", in Kaushik Basu (ed.) – "India's Emerging Economy – Performance and Prospects in the 1990s and Beyond", Oxford University Press, New Delhi, pp. 293-312.

Krueger, A.O. and S. Chinoy (2002) – "The Indian Economy in Global Context", in A.O. Krueger (ed.) – "Economic Policy Reforms and the Indian Economy", Oxford University Press, N. Delhi.

Kuruvilla, S., S. Das, H. Kwon, and S. Kwon (2002) – "Trade Union Growth and Decline in Asia", British Journal of Industrial Relations, 40(3), 431-461.

Lazear, E. (1981) – "Agency, earnings profiles, productivity, and hours restrictions", American Economic Review, 71(September), 606-620.

Nagaraj, R. (1994) – "Employment and wages in manufacturing industries: trends, hypotheses and evidence", Economic & Political Weekly, 29(4), 177-186.

Nagaraj, R. (2004) – "Fall in Organised Manufacturing Employment: A Brief Note", Economic & Political Weekly, XXXIX(30), 3387-3390.

Nickell, S. (1986) – "Dynamic models of labour demand", in O. Ashenfelter and R. Layard (eds.) – "Handbook of Labour Economics", North-Holland, Amsterdam.

Papola, T.S. (1994) – "Structural Adjustment, Labour Market Flexibility and Employment", Indian Journal of Labour Economics, Vol. 37.

Pissarides, C.A. (2001) – "Employment Protection", Labour Economics, 8, 131-159.

Ramaswamy, K.V. (2003) – "Globalisation and Industrial Labour Markets in South Asia: Some Aspects of Adjustment in a Less Integrated Region", The Indian Journal of Labour Economics, April-June, 46(2), pp. 253-274.

Ramaswamy, K.V. (2003) – "Liberalization, Outsourcing and Industrial Labour Markets in India: Some Preliminary Results", in Shuji Uchikawa (ed.) – "Labour Market

and Institution in India – 1990s and Beyond", Manohar Publications, New Delhi, pp. 155-175.

Schmitz, P.W. (2004) – "Job protection laws and agency problems under asymmetric information", European Economic Review, 48, 1027-1046.

Shapiro, C. and J.E. Stiglitz (1984) – "Equilibrium unemployment as a worker discipline device", American Economic Review, 74(3), 433-444.

Sen, K. (2003) – "Globalization and Labour Market Outcomes in the South: A Critical Survey", Paper written for the DFID project on "Globalization, Production and Poverty", University of East Anglia, mimeo.

Sharma, A. (2005) – "Recent Trends in Indian Labour Market and Emerging Issues of Employment and Income Security", Background Paper for International Conference on Employment and Income Security in India, Institute for Human Development, New Delhi, April 6-8, 2005.

Sherlock, S. (2001) – "Labour and the remaking of Bombay", in Jane Hutchison and Andrew Brown (eds.) – "Organising Labour in Globalising Asia", Routledge, London, pp. 147-167.

Sinha, A. and C. Adam (2004) – "Reforms and Informalization: What Lies Behind Jobless Growth in India", EGDI and UNU-WIDER Conference on "Unlocking Human Potential: Linking the Informal and Formal Sectors", 17-18 September, 2004, Helsinki.

Sundaram, K. (2001) – "Employment and Poverty in 1990s: Further Results from NSS 55th Round Employment-Unemployment Survey, 1999-2000", Economic and Political Weekly, 36(32), 3039-3049.

Suryahadi,A., P. Chen, and R. Tyers (2001) – "Openness, Technological Change and Labour Demand in Pre-Crisis Indonesia", Asian Economic Journal, 15(3), 239-274.

Weinhold, D. and J.E. Rauch (1999) – "Openness, Specialization, and productivity growth in less developed countries", Canadian Journal of Economics, 32(4), 1009- 1027.

World Bank (1989) – "India: Poverty, Employment and Social Services: A World Bank Study", The World Bank, Washington D.C.

Zagha, R. (1999) – "Labour and India's Economic Reforms", in T.J. Byres (ed.) – "The State, Development Planning and Liberalisation in India", Oxford University Press, New Delhi, pp. 160-185.