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Trade openness, labour institutions and flexibilisation: Theory and evidence from India ☆

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HIGHLIGHTS

- We develop a model where firms choose a mix of contract and permanent workers.
- We find that increased import penetration leads to greater use of contract labour.
- Stronger bargaining power of workers leads to greater usage of contract workers.

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ABSTRACT

There is a global trend of substituting permanent workers by workers on fixed term contracts, job outsourcing and production subcontracting. Labour institutions and globalisation are often taken to be causally related to this phenomenon, but the evidence remains inconclusive. In India, there has been an increasing use by firms in the formal manufacturing sector of temporary workers employed through contractors (contract workers) who are not represented by trade unions and do not fall under the purview of the labour laws that are applicable to directly employed workers on long-term contracts (permanent workers). We develop a model of labour demand where firms choose a mix of contract workers and permanent workers rather than permanent workers alone, essentially to counter the bargaining power of permanent workers. Our model predicts that greater import penetration will cause an increase in the employment of contract workers, while greater export orientation will have the opposite effect on contract labour usage. Our model also predicts that greater worker bargaining power will increase contract labour usage. We then test the model using state-industry-year panel data for Indian manufacturing. Consistent with our theoretical model, we find that increased import penetration leads to greater use of contract labour in Indian manufacturing, and that the effect of trade exposure on contract labour usage is stronger in states with pro-worker labour institutions.

1. Introduction

There is a global trend of substituting permanent workers by workers on fixed term contracts, job outsourcing and production subcontracting (ILO, 2002; Autor, 2003; IMF, 2010).[1] This phenomenon dubbed as 'flexibilisation' of labour has given rise to some concerns, especially for the workers in developing countries (WTO, 2009). Moreover, as this trend has coincided with trade liberalisation, one might wonder whether this is an unintended outcome of globalisation.

Intuitively, import competition may force firms to seek short-run efficiency and flexibility in labour use by hiring workers on fixed-term contracts. On the other hand, firms mindful of long-run efficiency or concerned about quality improvement (a key issue for exporting firms) may invest in productivity improvement of permanent workers. So the effect of globalisation (or at least the trade liberalisation component of globalisation) can go either way. Currie and Harrison (1997) observed that Moroccan private sector firms responded to 1980s trade and labour reforms by trying to improve productivity rather than resorting to low-wage employment; and only state-owned firms increased low-wage employment. Goldberg and Pavcnik (2003) also noted that in Brazil trade reform did not lead to the employment of low-wage informal workers, but

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[1] IMF reports that this trend has intensified in developed countries since 2008 and "countries with the strictest provisions for permanent, open-ended contracts experienced a large increase in the share of fixed-term (temporary) contracts in total dependent employment"(IMF, 2010, p. 8).

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in Colombia trade reform led to increased employment of informal workers, lasting only for the period preceding a major labour market reform. These two studies suggest that 'flexibilisation' (or informalisation depending on the context of the study) may not necessarily result from trade reform, but from labour market rigidities or a combination of labour market rigidities and trade reform. This would indicate that the recent trend of 'flexibilisation' is in response to labour market rigidities (Botero et al., 2004; Djankov and Ramalho, 2009); but this view has not gone unchallenged and the debate is far from over.[2]

In this paper, we study hiring of contract workers (that is, workers on temporary contracts hired through a government licensed intermediary or contractor) for Indian formal sector firms amidst growing trade liberalisation for the last twenty years.[3] Despite opening up steadily to foreign trade and investment and dismantling unfriendly business regulations rather swiftly in 1991, India has left its labour regulations largely unchanged, even though they were regarded as extremely rigid and favoured a minority of workers with permanent contracts employed in the formal sector (Dougherty, 2008). Large and strong trade unions resisted job cuts, job outsourcing or any other measures that they saw as detrimental to the interest of the permanent workers. Yet firms found ways to bring in contract workers; and after 1991 the practice became open and blatant. Not surprisingly the share of contract workers in the total employment has increased from a measly 12 per cent in 1985 to a substantial 26 per cent in 2004 in the registered manufacturing sector (NCEUS, 2007).

Hiring of contract labour was first permitted by a Central legislation enacted in 1970, and the practice received some boosts from several state-level amendments of the key features of the legislation. A curious aspect of the Indian regulatory system is that a central legislation can be applied with different ferocity in different states, because states are free to amend certain operational aspects to strike a balance between the local level diversity and the national objective. The states have made use of this freedom in all matters of regulation, particularly concerning labour and industry. But not all states have tweaked the labour laws in the same way; some have tweaked them in favour of the workers, and some in favour of the employers. Besley and Burgess (2004) have shown that there are enough state level variations in the labour laws that can explain the growth patterns of the formal and informal sector employment. Several other papers followed this trail to explain the unequal effects of trade and industrial reforms (Hasan et al., 2007; Aghion et al., 2008).

In this paper we focus on the specific problem of contract labour use by formal sector firms in India and we aim to determine as to what extent this pattern of labour use has been affected by labour regulations and trade reforms. Our identification strategy will exploit variations in trade exposure of firms by industry and over time and variations in labour regulations by state. To steer our empirical analysis in a clear direction we first develop a theoretical model, which helps to deal with some thorny issues. Why would firms hire contract workers who might be less skilled, and why do they hire both contract and permanent workers? How would the bargaining power of unions affect the optimal mix of employment between contract and permanent workers? Is the mix of employment also sensitive to exposure to foreign trade?

To get a grip over these issues, we propose a simple insider–outsider model, where a modern firm that prefers to use skilled labour in combination with capital may not hire all workers as permanent, because the permanent status will enable them to form a union and demand higher wages. So it can strategically hire some contract workers, both skilled and unskilled, to curb the union's wage demand. While this seems to be a profitable option, there are some downsides to it. Unskilled labour is not only less productive itself, but also it can reduce the productivity of capital (which is plausible for modern technology). In addition, there might be some contracting cost to set the terms of employment on worker-by-worker basis, as opposed to collectively contracting with a union. We show that the firm's optimal choice of contract labour (whether skilled or unskilled or both) depends on the nature of contracting. If the contract workers can be used only in conjunction with permanent workers, but not in strikes and other industrial disputes, (which we call a case of 'limited contracting'), the optimal type of contract labour will be unskilled labour. On the other hand, if the firm could use contract workers in any situations, (which we call 'unlimited contracting') optimal contract workers can be skilled and unskilled both, and a more general pattern of labour use would emerge.

However, we argue that the Indian scenario resembles the case of limited contracting, where the outcome is simply dichotomous – the skilled workers made permanent and the unskilled workers made temporary.[4] We embed this simple model in a broader economy with technologically backward formal sector firms coexisting with modern firms, and a large informal sector. It is shown that the share of contract workers in total (formal sector) employment increases if the permanent workers' bargaining power rises, or if there is a reduction in tariff making imports easier. These findings may be seen as a novel contribution to the theoretical literature on the developing country labour markets.

We then show using a three dimensional panel of 58 industries over the period of 1998 to 2004 for fifteen major Indian states that import penetration does increase the share of contract workers in formal firms, and so does the union's bargaining power, as our theoretical model predicts. However, we also see that export orientation does not affect the contract labour usage to the same degree. In line with Besley and Burgess (2004) and others, we also find that the positive effect of import penetration and the negative effect of export promotion on the share of contract labour are both stronger in those states, which have pro-worker labour laws, and that stricter labour regulations increase contract labour usage. Our results are robust to alternate measures of worker bargaining power, and to possible endogeneity concerns with the key explanatory variables of interest – trade openness and labour institutions.

The remainder of the paper is in five parts. In the next section, we provide a brief introduction of the Indian labour market. We then develop our theoretical model in Section 3. Section 4 proposes the methodology for the empirical analysis, describes the data, and provides a discussion of some of the variables used. Section 5 discusses the econometric results. Section 6 concludes.

2. The Indian labour market

The Indian labour market is highly segmented with only 20 per cent of all manufacturing workers employed in the formal sector.[5] Firms in the formal sector can employ workers via two routes – the 'permanent' route, where the worker is on a long-term contract, and the 'contract' route, where the worker is employed through government licensed intermediaries or contractors. The permanent route comes with job security rendered by some of the most protective employment legislations in the developing world. A large proportion of the permanent workers are members of trade unions as well, and they collectively negotiate

[2] Djankov and Ramalho (2009) find that developing countries with rigid employment laws tend to have larger informal sectors. This finding has been disputed by ILO (2002). With respect to trade and informality, WTO (2009) argues that the available evidence does not allow any general conclusions about their causal connections. Our question is about trade, labour laws and labour flexibilisation; but we restrict our attention only to the formal sector, not to the whole economy.

[3] India's degree of trade openness increased from 16 per cent in 1990 to 25 per cent in 2005, with significant reductions in tariffs, removal of quotas and import controls (Panagariya, 2008; Sen, 2009).

[4] Successful strikes in India mean total shutdown of the firm's activities. Workers show great solidarity during industrial disputes. Labour laws also prohibit the employers from taking any measures that may be construed an unfair and disguised attempt to infringe on workers' rights.

[5] By the formal sector, we mean the 'organised' sector in Indian manufacturing, which are registered under the Factories Act of 1948 of the Government of India. All firms with 10 workers or more that use electricity and 20 workers or more that do not use electricity are required to register with Indian state governments under this Act.