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The Doing Business Indicators:
Measurement issues and political
implications

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Preface

This paper addresses conceptual and methodological issues as well as the policy implications of the ‘employing workers’ component of the World Bank’s Doing Business Indicators. In 2004, the IFC began publishing the *Doing Business Report* which ranks 175 countries on the ‘ease of doing business’ a composite index of ten different regulatory areas, including labour market regulation.

The index of labour market regulation is known as the “Employing Workers Index.” It assesses the amount of flexibility that exists in national labour legislation on issues concerning use of term contracts, minimum wages, dismissal protection, severance pay, working hours, annual leave and non-wage labour costs. Countries that have less protective legislation score better on the index. The index is controversial because by ranking countries on the flexibility of their labour legislation it possibly encourages labour market deregulation, particularly if the index is used as a guide for determining loans by the international financial institutions.

This paper is a critical review of the ‘employing workers’ indicator and its policy implication that no regulation is best for business (or the lowest the regulation, the better the business outcomes). This is followed by a methodological critique of the indicators that addresses problems of selection, coding, weighting and ranking. The paper argues that despite their role in influencing labour market reforms and policies, the ‘employing workers’ indicators are not satisfactory for formulating policy recommendations.

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Table of contents

| | |
|--|-----------|
| 1. Introduction..... | 1 |
| 2. Theoretical background and conceptual problems: The case of the Employing Workers Index..... | 2 |
| 2.1. A review of the DB indicators | 2 |
| 2.2. Conceptual issues..... | 3 |
| 3. Methodological concerns..... | 9 |
| 4. What is poorly defined is likely to be poorly measured: The Employing Workers' index and the flexibility of the labour markets | 13 |
| 5. Conclusion..... | 17 |
| References | 19 |

Tables

| | |
|--|----|
| Table 1. The Doing Business Employing Workers indicator..... | 3 |
| Table 2. World Bank Doing Business in 2006, Employing Workers indicators | 14 |
| Table 3. Other synthetic indicators of the stringency of Employment protection in Bulgaria and selected countries, late nineties and early 2000s | 15 |

Appendices

| | |
|--|----|
| Appendix 1. Methodology of DB's Employing Workers Index..... | 22 |
|--|----|

1. Introduction

The debate on labour market institutions and how they affect employment and economic performance remains controversial. Since the 1980s, it has been argued that Europe's lacklustre economic performance vis-à-vis the United States is due to its overly rigid labour markets. Similarly, the World Bank, in its 1995 World Development Report, *Workers in an Integrating World*, argued that developing countries would be better positioned to seize the benefits of globalization if they made their labour markets more flexible. But after decades of both theoretical and empirical research, academics have failed to reach consensus on the effect of labour regulations on economic and labour market outcomes. Part of the problem in the debate may be due to the lack of satisfactory indicators (Bertola et al., 2000). Thus the issue of which labour laws are measured and how they are measured is a critical one. So far, most of the empirical research on the topic has referred to the "strictness" of employment protection legislation (EPL), considering different aspects such as the number of months' notice required for individual dismissals or the amount of severance payments. The OECD has produced several EPL indicators and tried to update as well as to improve those indicators to cover both permanent and temporary contracts, as well as collective dismissals (OECD 1994; 1999). But the increasing complexity of the institutional environment and the acceleration of labour market reforms throughout the world calls for new measurement efforts.

In 2004, the International Finance Corporation (IFC) began publishing the *Doing Business Report* to provide "objective measures of business regulations and their enforcement."¹ The report ranks 175 countries on the 'ease of doing business' a composite index of ten different regulatory areas, including labour market regulation. The intention of the index is to promote regulatory reform that minimizes red tape, but by assigning high scores to countries with no or minimal labour laws, the index promotes labour market deregulation. This is problematic for a number of reasons. To begin with, there is little evidence to support the policy view that labour market deregulation will improve economic performance and create more jobs. Second, because large and, in principle, comparable datasets on labour regulations remain scarce outside of the OECD, the index has become a widely used reference for measuring the economic effects of labour market regulations. But the index is based on a partial and crude understanding of how labour markets and its institutions function as well as the purpose of labour law. As a result, empirical evidence emanating from the index is of limited use. Worse, the indicators send misleading policy messages that invite simplistic and potentially erroneous policy conclusions.

This paper is a critique of the 'employing workers' index: its design, its theoretical foundation, its empirical support and its policy implications. The purpose is not to question the use of indicators for assessing the impact of a legal system on economic outcomes, but rather the quality of this particular indicator, since poorly constructed indicators can send misleading policy messages. Hence, the paper intends to raise awareness to academics and policymakers of the limitations of the employing workers index as well as its potentially hazardous consequences.

¹ www.doingbusiness.org

2. Theoretical background and conceptual problems: The case of the Employing Workers Index

2.1. A review of the DB indicators

The ‘ease of doing business indicator’ is a *de jure* analysis of regulations in 175 countries. Since its first publication, the index has expanded to measure ten areas in its 2007 report. These are: (1) starting a business, (2) dealing with licenses, (3) employing workers, (4) registering property, (5) getting credit, (6) protecting investors, (7) paying taxes, (8) trading across borders, (9) enforcing contracts and (10) closing a business. Countries receive a ranking for each of the ten topics, which is then averaged to give an overall ranking on the ease of doing business. Important considerations for businesses, such as macroeconomic conditions, physical and human infrastructure and crime are not considered.

Although the index appears at first glance as innocuous with the sole goal of minimizing red tape, closer inspection reveals some problems with the assumptions, construction and motivation of the different categories. Arruñada (2007), for example, in his analysis of the “starting a business category” cautions that an excessive reliance on reducing the initial costs of registering a business disregards the important role of business registers as a source of reliable information for judges, government departments including tax authorities, and other firms. He stresses the important negative effects of low-quality formalization in terms of future transaction costs and litigation.

The focus of this paper is on the employing workers’ index. This category is arguably even more controversial as the objective is to reduce the cost and hassle of employing workers for businesses, effectively undermining the purpose of labour law. The employing workers index is a composite of three sub-indices: difficulty of hiring, rigidity of hours, and difficulty of firing. In addition, there is a firing cost indicator as well as a non-wage labour cost indicator that measures all social security payments (including retirement fund; sickness, maternity and health insurance; workplace injury; family allowance; and other obligatory contributions), expressed as a percentage of the workers’ salary. (See Table 1 and Appendix 1 for a description of the index’s methodology). Countries are ranked according to their score on the three indices – difficulty of hiring, rigidity of hours and difficulty of firing – as well as the firing cost indicator.

Table 1. The Doing Business Employing Workers indicator

| EMPLOYING WORKERS INDICATOR | | | | | |
|---|---------------------------------|------------------------------|---|---|--|
| Components | RIGIDITY OF EMPLOYMENT | | | NON-WAGE LABOUR COSTS (% of salary) | FIRING COSTS (weekly wages) |
| | Difficulty of Hiring (0-100) | Rigidity of Hours (0-100) | Difficulty of Firing (0-100) | | |
| | | | 1) Use of redundancy | 1) Payroll taxes | |
| | | 1) Night work restrictions | 2) Third party notification for redundancy (indiv./ collective) | 2) Retirement; | |
| 1) Use of term contracts | 2) Weekend work restrictions | | 3) Third party approval for redundancy (indiv./ collective) | 3) Sickness, | |
| 2) Maximum duration of term contracts | 3) Day(s) of rest | | 4) Reassignment or retraining options before redundancy | 4) Maternity | Cost of advance notice, Severance payments, redundancy penalties |
| 3) Ratio of the minimum wage to the average value added per worker (for new hiring) | 4) Workweek duration | | 5) Priority rules for redundancies; | 5) Health insurance; | |
| | 5) Paid annual vacation days | | 6) Priority rules for reemployment | 6) Workplace injury; | |
| | | | | 7) Family allowance; | |
| | | | | 8) Other contributions associated with hiring | |

The data on employing workers is based on a survey of employment regulations completed by local law firms. To ensure comparability across countries, the Doing Business asks lawyers to make the following assumptions when answering the questions: the worker is a non executive, full time male employee with 20 years of tenure. He earns a salary plus benefits equal to the country's average wage. He has a wife and two children, he lives in the most populous city and he is law-abiding. Finally, he does not belong to a union, unless membership is mandatory. The business he works for is a limited liability company, is domestically owned, is in the manufacturing sector, has 201 employees, is law-abiding, but does not grant benefits above what is required by the law. The business is subject to collective bargaining agreements in those countries where bargaining covers more than half of the manufacturing sector.

The employing workers' index clearly does not encourage countries to abide by many of the International Labour Conventions of the International Labour Organization (ILO). In many instances, countries score worse if their national labour legislation reflects the provisions set forth in the ILO Conventions concerning termination of employment, minimum wages, working hours and annual leave, even though these are international treaties ratified and adopted by many countries. Moreover, countries that abide by the conventions on Fundamental Principles and Rights of Work do not score better than countries that have not adopted these conventions.

2.2. Conceptual issues

The Employing Workers index, as well as the other business regulations indicators of the World Bank database, is a composite indicator that compares countries on the degree to which they regulate certain aspects of the labour market. Composite indicators are popular as they are easier to interpret than a long list of individual indicators and because they provide a summary of complex and multi-dimensional issues. In addition, composite indicators put country performance and progress at the top of the policy debate. However, composite indicators need to be formed by individual indicators on the basis of an underlying model and comprehensive analytical framework.

The theoretical framework and methodology of the Employing Workers Indicator is based on Botero et al. (2004). In this study, regulations are viewed a cost that burdens businesses. Their objective, therefore, is to explain why some countries regulate the labour market more than others. The authors advance three theories: to correct market failure (efficiency theory), to benefit political leaders and their allies (political power theory) and because of the country's legal tradition (legal origin). The authors then code different labour laws by assigning a higher score when a regulation is more protective of a worker and then run some simple regressions to test the theories.² They conclude that civil law countries, especially French civil law countries, regulate markets more heavily than do common law countries. They argue that politics—whether leftist or centrist governments have held political power—has led to more generous social security benefits, but that the effect of politics is much less pronounced than that of legal origin. They dismiss “efficiency theories.”

Thus, for these authors, labour laws and policies are, for many countries, the legacy of colonialism, and are thus imposed exogenously. Moreover, according to the authors, the laws do not correct market failures, but actually worsen the performance of the labour market. Indeed, at the outset, the authors are sceptical of efficiency theory arguing that “the basic assumption of market failure is not nearly as convincing in [labour] markets as in some others” (p. 6). Labour laws and policies are viewed as rigidities that should be removed if business is to prosper. But this is a very simplistic and misleading view of how labour markets and labour market institutions work.

Labour markets are governed by market forces, but also by a range of labour institutions, including social values and norms, such as the work ethic and norms of fairness. These endogenous sources influence what labour laws and policies are enacted by government, in some instances, formalizing already what exists informally, but also causing inertia, even when regulations are changed (Rodgers, 1994). Trade unions and employers' organisations also influence the design of labour market regulations, particularly if the rights and means for tripartite negotiation and collective bargaining are mandated by law. But labour market regulations are also imposed exogenously onto an economic system, in order to adhere to the international labour conventions and recommendations of the International Labour Organization (ILO), sometimes out of international pressure, including pressure stemming from bilateral and multilateral trade treaties, but also out of recognition of the need to institute clear policies to safeguard workers' rights and improve working conditions.³

Piore (2002) explains how many of the first labour standards were directed against the ‘sweatshop’ and industrial homework. In sweatshops where workers earn piece-rates, their earnings will fall if they are less productive. Poor working conditions, such as cramped and poorly ventilated work spaces lower productivity, but since workers are paid piece-wages, only they suffer the cost of the poor conditions. In sweatshops and with homework, workers also suffer the cost of fluctuations in market demand as well as industrial accidents when safety and health standards are ignored. But by regulating working conditions—through provisions on health and safety, child labour, minimum wages, and employment protection—labour standards alter the incentives of employers. Under a system of minimum wages, it becomes in the employers' interest to improve workforce productivity, thus firms are more likely to adopt safety and health standards in their workplaces. Similarly, by making dismissal more difficult, firms have more incentive to train their workers, thereby increasing worker productivity and improving functional flexibility. Thus labour standards can be used, and were used successfully in many

² The laws they code include: alternative employment contracts (regulations concerning part-time and fixed-term contracts), conditions of the employment contract (flexibility in working time, paid leave and minimum wages), job security (regulations concerning dismissal and severance pay), industrial relations laws (collective bargaining, workers' participation in company's management and collective disputes) and social security laws.

³ See Martinez (2004) for a discussion of labour standards and trade negotiations in Latin America.

parts of the world, to discourage certain production systems that society viewed as undesirable, both for workers and the economy.

Ultimately, however, the most fundamental reason for the existence of labour laws is out of recognition of the bargaining power disadvantage that workers have vis-à-vis employers. It is a disadvantage that affects the nature of employment contracts and which, in general, cannot be corrected by the market. It is thus a market failure (even if often times resulting from undesirable social structures such as gender, race or class discrimination). Legal statutes (on, for example, maximum hours, vacations, minimum wages, health and safety regulations, and non-discrimination), as well as laws protecting freedom of association and collective bargaining, which are considered process rights that strengthen the bargaining power of workers, seek to correct this asymmetry in bargaining (Langille, 2005). Luckily, as in the example of laws seeking to outlaw the sweatshop and industrial homework, labour regulations can bring about economic benefits for the firm and the economy, in addition to the benefits bestowed on the individual worker.

An unbalanced view of the economic effects of regulations

A significant conceptual shortcoming of the Employing Workers (and Botero et al., 2004) indicators is that they do not consider the positive externalities of labour market regulations. Rather, the index is based on a costs and “time is money” approach where legal systems are seen only as a burden and expense for business. The many benefits, both economic and social, emanating from labour law, such as their role in reducing inequality, insecurity and social conflict, but also in providing incentives to businesses to pursue high-road management strategies, are not considered. A more realistic and comprehensive analytical framework would integrate the beneficial effects of labour regulation on labour costs, employment and productivity in order to better ascertain the net cost of a particular law or policy. In this section we review some of the economic and social benefits of those labour regulations that comprise the employing workers index: minimum wages, working hours, employment protection legislation, fixed-term contracts and social security.

Minimum Wages. In the neoclassical labour market model, minimum wages prevent the labour market from clearing, resulting in unemployment. Viewed through this lens it is understandable that the minimum wage is often singled out in debates on labour market regulations as a distortionary policy that does more harm than good. But labour markets are far more complex than what is illustrated in a supply and demand graph. An increase in labour costs can be compensated by higher productivity of labour stemming, not least, from decreased turnover and absenteeism as well as increased worker morale. Moreover, the multiplier effects associated with the pay raise can stimulate aggregate demand, raising the demand for labour. Because there are competing theories about the employment effects of a minimum wage increase, the debate has centred on empirical studies. Here too there has been much controversy particularly since the publication of Card and Krueger’s (1994, 1995) landmark study, based on a natural experiment that compared the employment effects of a minimum wage increase in fast-food restaurants in New Jersey with restaurants in Pennsylvania, where such an increase did not occur. The authors found that New Jersey restaurants did not decrease employment vis-à-vis their Pennsylvania counterparts, calling into question previous analyses based on time-series regressions. Their work sparked an important academic debate that resulted in a shift in economic discourse within the profession away from doctrinaire assertions about its negative impact based on supply and demand graphs to a more introspective position based on actual experience (see Fox, 2006). Besides the employment impact, the minimum wage has also been shown to be an effective policy tool for reducing wage inequality and poverty (see Eyraud and Saget, 2005). Although minimum wages are criticized for only aiding wage earners under

formal employment contracts, minimum wages have been shown to act as a benchmark for wage-setting even among informal workers (Neri et al., 2001).

Working Hours. Economic studies have shown that a lack of restriction on working hours can lead to a socially inefficient level of hours worked for the worker, the firm as well as society as workers often do not realize the harmful effects that working long hours can have on their health and safety as well as their family and community life (see Lee and McCann, 2007). Restrictions on working hours may also encourage firms to adopt productivity-enhancing technologies that benefit the firm as well as economic growth in the medium to long term.

Employment protection. Much of the debate on labour market flexibility has focused on employment protection legislation, which are the laws that regulate workers' dismissal and which mandate severance pay. It is argued that removing these laws will result in an increase in employment as employers will be less wary about hiring workers whom they fear getting stuck with. But economic theory is fairly clear that any potential benefits to deregulating dismissal will increase the flow of workers, but not the overall stock, as both separations and hirings will increase. Moreover, according to economic theory, the additional costs associated with the legislation are discounted ex-ante in wage contracts (Lazear, 1990). Economic theory also argues that there are important economic and social benefits to the legislation as it increases labour market stability and workers' security, possibly mitigating social conflict. According to research conducted by the ILO, solely increasing flexibility will not improve labour market efficiency, as workers as well as firms need some degree of stability and security.⁴ Indeed, there is no clear-cut evidence that firms systematically opt for a very high degree of flexibility and high labour turnover, even when allowed under the law. The negative effects of too much turnover on investment in human capital, in new technologies, and in capturing new markets have been pointed out in numerous economic studies (see for example, Becker, 1964 and Williamson, 1985). Moreover, businesses may prefer stable relationships that cultivate a worker's experience, as transaction costs such as screening and training are lowered. All these effects should then be taken into account as having beneficial impacts on productivity and competition.

Fixed-term contracts. Prolonged use of fixed-term contracts has been associated with negative economic and social effects. Traditionally fixed-term contracts have been viewed as a means for hiring workers for specific periods or for a specific task, in response to short-term increases in labour demand, some of which are seasonal, or for giving employers the ability to hire workers on a probationary period until the suitability of the worker could be confirmed. Many countries have circumvented dismissal restrictions by offering fixed-term contracts for a prolonged period or by way of contracts that can be continuously renewed. Fixed-term contracts are prevalent in Spain with over one third of workers employed under such contracts, twice the EU average (Ayuso i Casals, 2004). The prevalence of these contracts has given Spanish firms the ability to adjust their workforce more easily in response to business cycle fluctuations while reducing labour costs (workers on fixed-term contracts have been found to earn 10% less than workers on indefinite contracts after controlling for worker characteristics), but has also lead to greater turnover, less skills development, a greater prevalence of work accidents as well as a postponement of marriage and parenthood (Muñoz de Bustillo Llorente, 2005; De la Rica and Iza, 2005). These negative effects are not reflected in the construction of the indicator.⁵

⁴ See for example, Auer and Cazes (2003); Cazes and Nesporova (2003); Auer, Berg and Coulibaly (2005).

⁵ In addition, the index does not consider that terminating a fixed-term contract before its term is usually regulated even more strictly than terminating an indefinite contract and is often limited to reasons of worker's misconduct.

Social security. Social security provides protection to workers against the economic and social distress of not working as a result of sickness, maternity, injury, invalidity, and old-age, as well as unemployment. It is typically funded through payroll taxes, which is a tax levied on the wages paid to workers, since financing of social security is often contributory with worker, state and employer participation. Because payroll taxes increase the cost of labour, some economists argue that they negatively distort the demand for labour, causing a ‘wedge’ between the equilibrium level of full employment and the quantity of labour that the employer would demand at the higher price. There are two principal economic debates concerning payroll taxes. The first concerns tax incidence, or the extent to which employers pass this tax onto workers in the form of lower wages. If tax incidence is high, which is often the case, then payroll taxes have no distortionary effect. The second issue concerns the economic and social benefits derived from having a well-funded social security system. Social security provides financial relief to workers and thus improves their income security. It is therefore a fundamental pillar of *flexicurity* policies which exchange this income security for greater numerical flexibility in the labour market. Although social security is often thought of as a ‘luxury good’ that only rich countries can afford, these policies have brought economic benefits to both rich and poor countries. In India, for example, social security spending during 1973-1999 contributed to economic growth and the reduction of poverty (Justino, 2006).

In addition, an effective unemployment insurance system operates as a stabilizing mechanism for the economy while providing for the needs of laid-off workers. In the United States, it is estimated that the unemployment insurance programme mitigated the loss in real GDP by approximately 15 per cent during the five recessions that occurred between 1969 and the early 1990s. The programme exhibited a substantial and significant countercyclical effect on changes in real GDP over the three decades, resulting in an average peak saving of 131,000 jobs (Chimerine, Black and Coffey, 1999). A household-level analysis of the effect of unemployment insurance on consumption found that in the absence of unemployment insurance, becoming unemployed would be associated with a fall in consumption of 22 per cent, compared with the 6.8 per cent drop for unemployment insurance recipients in the United States (Gruber, 1997). Moreover, if the replacement rate of income under the unemployment insurance programme were to be over 84 per cent – compared with the existing rate of approximately 50 per cent – unemployment insurance would fully spread consumption across the spell of unemployment. By comparison with other incentive measures, such as income tax cuts, Orszag (2001) calculates that the United States unemployment insurance system is at least eight times as effective as the tax system as a whole in offsetting the impact of a recession.

The importance of interactive effects when assessing labour market institutions

The Employing Workers Index also fails to understand the “package” nature of labour laws and policies and their interactions. It is rare that a policy objective can be achieved through a single law and policy.⁶ For example, if the policy objective is to increase women’s labour market participation then there may be laws outlawing discrimination (and labour inspectors and courts to ensure the law is upheld), but a government may also consider making it easier to hire part-time workers, ensure that they receive social security benefits on a pro-rata basis as well as increase childcare options. Similarly, if the goal is to increase labour market mobility, then governments would be well advised to increase income protection for workers who change jobs, but also offer them the opportunity to receive training if they are out of work, as opposed to

⁶ See Sengenberger (1994) for a discussion of this issue.

simply eliminating redundancy and severance pay provisions, as this could create the opposite effect. In Central and Eastern Europe, for example, Cazes and Nesporova (2003) found that the lowering of the employment protection combined with a general weakening of labour market institutions made workers reluctant to quit their jobs, even when economy was recovering because of greater insecurity. This suggests that it is never one institutional setting that on its own determines the question of labour flexibility, labour market mobility and security, but systemic interaction between the main national labour market institutions, such as labour legislation, unemployment benefit schemes, active labour market policies and wage-setting institutions. Boeri and van Ours (2007) identify possible trade-offs or complementary relationships between these different institutional settings: strict employment protection legislation, for example, would not be effective if wages were completely deregulated as this would allow employers to induce voluntary quits.

Flexicurity systems, which are based on these interactions, are superior to flexibility systems both socially but also economically (Auer, 2007). Yet the taxes collected to finance passive and active labour market policies in a flexicurity system would reflect poorly on the ‘paying taxes category’ of the index. Thus replacing severance pay by unemployment benefits – under certain circumstance a superior solution—may not lead to an improvement in the overall DB ranking. Yet deregulating without providing compensatory measures is a recipe that has met with little success. Thus policy recommendations on flexibility should be formulated with the greatest caution as none of the existing indicators captures the increasing complexity of legal provisions and their interactions.

Statutory provisions in the labor code are not the sole determinant of working conditions (or labour costs). In some cases, collective agreements mandate conditions of work (for example, working hours in Denmark). When a country considers that workers have sufficient voice and equality in bargaining, they may allow certain working conditions to be agreed upon via collective bargaining, thus bypassing statutory provisions.⁷ Collective bargaining also allows firms to negotiate with workers on pay, hours, benefits and other issues, giving business a greater degree of flexibility than is apparent in the Employing Workers Index. As the ILO notes “collective bargaining has increasingly become an instrument in managing the process of enterprise restructuring, with a view to enhancing the competitiveness of enterprises.”⁸ In some instances, collective bargaining allows firms and workers to negotiate pay and working conditions that are below what is stipulated in the law. Countries also have exemptions concerning specific issues. Brazil, for example, allows collective negotiation to establish a bank of hours that provides firms with considerable flexibility in working hours.⁹ Yet, this is not apparent in the Rigidity of Hours index where Brazil scores 60, which was 42 percent worse than the average for all countries.

Lack of robust empirical evidence

The Doing Business report champions the belief that by deregulating the labour market, businesses will prosper and informality will be reduced. But the empirical debate on the economic benefits of labour market deregulation is far from being settled.¹⁰ For example, in the

⁷ Although the index claims to consider collective bargaining provisions where bargaining covers more than half of the manufacturing sector, it is not clear how the index can consider specific provisions negotiated for the construction sector but not the beverage sector or for one firm but not another.

⁸ “Collective Bargaining and the Decent Work Agenda” GB.297/ESP/2, Geneva, November 2006. See also Ozaki (1991) for an in-depth analysis of how social dialogue can be used to negotiate flexibility.

⁹ M. L. Vega Ruíz (2005), p.66.

¹⁰ There are scores of articles on this issue demonstrating negative, neutral, positive as well as inconclusive economic effects as a result of labour market regulations and institutions. Part of the vastness is attributed to what is taken as representative of labour market regulations. Many studies on labour market institutions focus on employment

study by Botero et al. (2004), which is the basis for the methodology of the Employing Workers Index, the authors run a number of regressions to determine the effect of their index on labour force participation, unemployment and informality. After correcting for endogeneity, the authors find that employment laws have a significant negative effect on male labour force participation and unemployment (positive and significant), but no effect on informality. Nevertheless, contradicting the study upon which the Employing Workers Index is based, the Doing Business reports assert repeatedly that deregulating the labour market will reduce informality.¹¹ Moreover, the indices for employment laws, collective relations and social security laws are regressed separately on the dependent variable, which is peculiar for a labour institutions study given the well-known interaction effects between these three areas. Bertola (2005) tests the reliability of the indicators and empirical findings of Botero et al. (2004) by regressing the indicators on employment and unemployment for both Latin America and the OECD in both pooled regressions and as well as regression controlling for Latin America with a regional dummy as well as interaction terms. He concludes that the evidence is “rough” and “far from clear cut” and that it “fails to support simplistic views of labour market institutions” .

3. Methodological concerns

Other limitations relate to methodological questions. This section looks at the implications of the methodological choices made when constructing the indicators.

Selection bias

The Employing Workers Index scores countries based on strong assumptions about the workers and the enterprises which are not relevant, particularly in developing countries, but also in developed countries. The report offers no indications of why and how the “representative” cases were selected: what methodology was used? Were the cases the mode or the average? According to the authors of Doing Business reports, the hypothetical cases should make international comparison more simple and universal. But this is an erroneous and narrow view that assumes that in all countries the same legal instruments are used to resolve identical problems. Thus the index does not account for the diversity of solutions offered by each national legal system.

A first, particularly unrealistic, assumption is that the representative worker has twenty years of job tenure. Yet in the fifteen countries of the European Union (EU-15) in 2005, only 17 percent of the working population had job tenure equal to twenty or more years and average tenure was 10.6 years (Auer et al., 2005). In Central and Eastern Europe, the longest average tenure to be found was Poland with 11.7 years in 2003, whereas the regional average was 9 years

protection legislation including severance pay, whereas other consider freedom of association and collective bargaining rights, minimum wages, laws on working hours and social security provisions. For a review of the labour market flexibility debate see Berg and Kucera, eds. (2007). For a detailed overview on empirical work measuring the labour market effects of employment protection legislation see Cazes and Nesporova (2003) and Pierre and Scarpetta (2004).

¹¹ In the 2006 report, for example, the chapter on Employing Workers begins with the anecdote of Yasmine, a college graduate from Burkina Faso, who is unable to find a job in the formal sector: “her plight can be explained by rigid employment regulation” (p. 21).

(Cazes and Nesporova, 2007). In Latin America, average tenure was just 6.2 years and about half the labour force had one or fewer years on the job.¹²

Likewise, assumptions about the business refer to the most protective cases, namely big firms with two hundred or more employees, even though small enterprises are often exempt from labour legislation, in particular dismissal protection legislation. In Germany, for example, establishments with 5 or fewer workers are not subject to the *Kündigungsschutzgesetz* or Protection Against Dismissal Act (PADA)¹³; and there were almost 1.5 million small establishments of that size who were subject to social insurance, accounting for over 68 % of all establishments in the country. These units employed around 3.2 million workers in 2001 which represented over 11 % of all workers. In middle and low income countries, most workers are not employed in big companies. In Chile for example, 60 percent of workers were employed in firms with fewer than 50 employees (micro and small firms). In Peru and Pakistan, the figures are even higher at 79 percent, respectively. Even in Europe, 53 percent of workers worked in firms with fewer than fifty employees (data for 19 countries).¹⁴ One could conclude that the World Bank has selected the most protected cases that are the long tenured workers working in a firm that employs 200 or more workers. Clearly this reference is *not* very representative of the world of work.

Omitted variable

Another important limitation of the Employing Workers indicators relates to the omission of enforcement procedures. The Doing Business reports refer to the evaluation of texts and are not concerned with the application of the law. Hence they are based on the legal constraints that apply in each country and do not capture the degree of enforcement of employment legislation. Yet, there are several important indications that asymmetries across countries (and over time) in the degree of enforcement of labour legislation may be more marked than differences in regulations per se. Enforcement plays a crucial role in the functioning of labour markets, notably in determining labour market flows such as job losses and inflows into unemployment. Bertola et al. (2000), for example, argue that given the increasing institutional complexity and the legislative vacuum surrounding the rights of workers under new types of contracts, national administrations and labour courts effectively determine the enforcement of employment protection. Moreover, the indicator offering the closest approximation of judicial interpretation of employment protection legislation – namely an OECD indicator based on the notion of “difficulty of dismissals”¹⁵ – is more closely related than other available indicators to job-termination probabilities and to the inflows of persons into unemployment (Cazes et al, 1999). Jurisprudence would thus be as important as – if not more important than – the nominal strictness of regulations per se. Yet it is often neglected as being a particularly hard to measure aspect of the legislation.

Preliminary evidence on the role of the courts, incidence of courts cases, applicable sanctions and the costs of legal proceedings confirm that there is much to learn from the cross-countries variations in the implementation of the law. The limited and rough information available suggests for example that countries whose courts are the most frequently involved in labour disputes over termination of employment also tend to be those displaying the highest

¹² Data from IDB (2004) *Good Jobs Wanted* data appendix. Data are for 10 Latin American countries from the early 2000s and late 1990s.

¹³ See Verick (2004).

¹⁴ Data on employment in micro and small firms from Reinecke and White (2004).

¹⁵ This indicator of EPL reflects a qualitative assessment of the strictness of legal definitions of unfair dismissal, the frequency of verdicts involving the reinstatement of employees, and the monetary compensations awarded in cases of unfair dismissal (the methodology is discussed in detail in Grubb and Wells, 1993).

percentage of rulings favourable to employees. Spain is a case in point. In 1995, 1 employee in 200 appealed to the courts (compared with 1 employee in 15,000 in Austria) and about 72 per cent of cases in 1995 were won by the workers. France and to a lesser extent Italy display the same patterns (Bertola et al., 2000). Besides, the precision, transparency and consistency with which legislators define reasons for dismissal may give the courts more or less discretion in interpreting the law. Another relevant aspect refers to the endogeneity of jurisprudence as the incidence and outcomes of litigation are likely to be affected by labour market conditions. There is evidence, for example, that in western Germany court rules have been particularly unfavourable to employers during downswings as if jurisprudence were playing the role of a stabiliser (Berger, 1997). There are also some indications that court ruling have favoured employees in the high unemployment Mezzogiorno more than in the northern part of Italy (Ichino et al., 1997). These results should perhaps be duly acknowledged when assessing the causal relationship between labour legislation and labour market outcomes.

Aggregation and weighting system

The composite Employing Workers indicators aggregate quantitative and qualitative dimensions of hiring, firings and hours worked. Two concerns emerge at this stage of the construction process: what is aggregated (choice of the variables) and how (weighting scheme used). The design of the “Difficulty of Hiring” index provides a good illustration of these issues. In this index, the authors mostly focus on external numerical flexibility;¹⁶ they look in particular at contractual flexibility, the reasons for using a fixed-term contract and the maximum duration of these contracts and dismissal legislation. Other important channels of adjustment such as wage flexibility, part-time work and work-sharing arrangements are not taken into account. It is fair to admit that it would be difficult to measure internal flexibility in an index, but there is room for improving the index on the cost side. Presently, the only price variable included is the mandated minimum wage to average value added per worker, considered as a determinant of the difficulty of hiring. The DB scoring system penalizes countries if the minimum wage is greater than one-fourth (0.25) of average labour productivity, one of the most difficult variables to measure accurately.

Another concern relates to the arbitrary choices of the weighting scheme used by the DB reports: on the one hand, equal weights are attributed to each of the three components of the difficulty of hiring index or the synthetic index of rigidity of employment; on the other hand, the difficulty of firing gives greater weight to some sub-components of the indicator without providing convincing rationale for it. Indeed, there is no economic analysis to back up why specific regulations are chosen.¹⁷ To avoid this apparent ad hoc approach, the authors should justify their choices. Ideally, the design of an appropriate weighting should be done according to the impact of the respective sub-components of the Employing Workers indicators on the labour market outcomes.

¹⁶ Labour market flexibility can be defined as the degree to which employment or working time (quantitative adjustment) or wages (price adjustment) adjust to economic changes. The literature on flexibility usually looks at the different definitions of labour market flexibility; *external* versus *internal* flexibility, the former referring to job changes involving new employment with a different employer and to labour turnover and geographic mobility, and the latter referring to job changes within the same enterprise; and *numerical* versus *functional* flexibility, the former relating to changes in the number of workers, and the latter meaning occupational changes and mobility within the enterprise.

¹⁷ Such as the arbitrary decision to penalize countries that do not allow fixed term contracts for less than five years.

Subjective indicators

As indicated previously, the Doing Business reports are based on answers to questionnaires on the different types of labour regulations that prevail in each country. Questionnaires allow room for interpretation and value judgements as they are based on the perception of the respondent, resulting in a certain level of subjectivity.¹⁸ But the way questionnaires are constructed also adds some partiality since the formulation and wording of the questions are not neutral and can affect responses. The du Marais report analyzed detailed aspects concerning the formulation of questionnaires, such as linguistic bias, translation problems and the choice of vocabulary.¹⁹ The authors found in the “Hiring and Firing” indicator for example, bias in the conception of some questions. In France, for example, the question on whether or not the law establishes “fair” grounds for dismissals, is meaningless as no such criteria is specified in the law, rather a general concept of “real and serious cause” is left to the decision of the tribunal.²⁰ Moreover, the question on the maximum number of hours in a normal workweek is also not relevant as several correct answers are possible.

Ranking of ranking procedure

Ranking is the simplest method to normalize indicators and make them comparable. It is also a useful tool in summarizing many qualitative aspects of labour legislation which are difficult to measure. This method requires however detailed information on all countries in order to compute the ranking, making updating a time consuming and expensive exercise. As the Doing Business reports are produced on a yearly basis, they miss part of the legislative changes and reforms which take place almost on a continuous basis. In addition, countries’ performances in absolute terms cannot be evaluated as information on levels is lost. More disturbing is the dynamic induced by country ranking according to their level of (de)-regulation. The authors of the DB report claim that ranking countries create strong incentives to initiate reforms because each government will consider its position mainly *in comparison* to other countries (and in particular to its regional cluster). This means that when reforming, the attention of policy makers will be mostly focused on the change of the relative position of the country, whatever its starting conditions. Thus, despite efforts for reforming, a country could simply keep the same ranking, or even “regress”, just because other countries would be “better reformers” or because new countries would be included in the Doing Business reports. The ranking exercise is thus a clear incentive to continuous reforms, in a race to deregulation of the labour market.

Coding method

Another important step in the construction of the indicators relates to the coding of responses. This is a challenging task as legislation, regulations and references texts are particularly unsuited for this type of analysis, where qualitative and complex information needs to be transformed into quantitative variables. While difficult, it is a necessary exercise for having empirical evidence and arguments in the flexibility debate, thus it is crucial to do a proper assessment of the law that is accurate and does not lose too much information. The Employing Workers indicators are based on responses to questionnaires which are most commonly recorded

¹⁸ Problems due to the collaboration with foreign lawyers include: possible misunderstanding of the questions; the risk that each foreign lawyer fills in gaps in the definitions of terms used in a question according to his own priors.

¹⁹ Du Marais (2006).

²⁰ This shows the importance of having a common frame of reference, such as ILO Conventions, in order to ensure full conformity of the questions. Articles 4 and 5 of Convention 158 provide that “the employment of a worker shall not be terminated unless there is a valid reason for such termination,” as well as a list of number of reasons that do not constitute valid reasons for termination of employment.

by coding 0 or 1.²¹ As demonstrated in the comprehensive analysis of H. Spamann (2006) on legal rights of shareholders, having a consistent coding for legal data is particularly difficult because rules are not only multidimensional in content, they are also constituted by multidimensional sources which give room for interpretation. For example, whether only mandatory rules, or default rules or even optional rules should be considered and coded is a critical aspect of the coding process. In his study, Spamann recodes the “Antidirector Rights Index”²² of shareholder protection rules, a composite indicator commonly used as a measure of legal shareholder protection in cross-country empirical studies. His revisions, based on a more rigorous coding, alter the meaning of the ADRI indicator and the regressions’ results in terms of country performances: the recoded indicators give a different picture of the impact of regulation on stock market outcomes (market size, ownership concentration, block and control premia). While the core findings of Spamann’s study can not be generalized to other empirical research using legal data, they call for a rigorous and consistent coding. Based on his meticulous analysis of questions and difficulties arising from the transformation of text and qualitative information into quantitative data, guidelines or protocol for technical options in assessing the law could be established.

Finally, it is not clear how missing data are processed in the DB index. This is a critical issue, as a “zero” would be an extreme value and the best score countries could receive according to the Doing Business reports. This issue should be clarified as affecting more specifically the ranking of developing countries, where information is more likely to be missing or non available.

4. What is poorly defined is likely to be poorly measured: The Employing Workers’ index and the flexibility of the labour markets

In this section, we illustrate through the cases of Bulgaria and Argentina some of the conceptual and methodological critiques that we have raised in this paper concerning the Employing Workers’ Index. Table 2 gives the scores for the two countries in comparison with their regional average and the average of the OECD. In both cases, the countries are considered more rigid and both are ranked quite poorly, with Bulgaria positioned at 100th place and Argentina at 138th out of a total of 175 countries. But are their labour markets overly rigid and in desperate need of reform?

²¹ Except for very few aspects of the legislation (maximum duration of terms contracts, the ratio of mandated minimum wage to average value added per worker and the maximum number of working days per week) the EW index is based on a binary coding.

²² The “Antidirector Rights Index” (ADRI) is defined as the number of shareholder protection mechanisms based on legislative aspects ,such as the “oppressed minorities mechanism”, that is whether the Law grants minority shareholders either a judicial venue to challenge the decisions of management or the right to step out of the company by requiring the company to purchase their shares when they object to certain fundamental changes (definitions from La Porta et al., 1998 for 46 countries, revised definitions from Djankov et al., 2005):

Table 2. World Bank Doing Business in 2006, Employing Workers indicators

| Country / Region | Employing Workers Rank | Difficulty of Hiring Index | Rigidity of Hours Index | Difficulty of Firing Index | Rigidity of Employment Index | Non-wage labour costs (% of salary) | Firing Costs (weeks of wages) |
|---------------------------|------------------------|----------------------------|-------------------------|----------------------------|------------------------------|-------------------------------------|-------------------------------|
| Bulgaria | 100 | 50 | 80 | 10 | 47 | 30.1 | 8.7 |
| Europe & Central Asia | -- | 34.2 | 50.7 | 37.1 | 40.8 | 26.7 | 26.2 |
| Argentina | 138 | 44 | 60 | 20 | 41 | 23.0 | 138.7 |
| Latin America & Caribbean | -- | 34 | 34.8 | 26.5 | 31.7 | 12.5 | 59.0 |
| OECD | -- | 27.0 | 45.2 | 27.4 | 33.3 | 21.4 | 31.3 |

Source: World Bank, Doing Business website (www.doingbusiness.org).

Bulgaria

As in most Central and South Eastern European transition countries, the exposure of national economies to global competition has forced Bulgarian enterprises to adjust labour, production technology and outputs to market demand. At the launch of transition, it was widely accepted by policy makers and the population at large, that full employment and the generous previous social protection systems could no longer be maintained. Within the structural adjustment process, introducing employment flexibility and lowering social protection was seen as the sole possibility for transforming labour markets. Major economic and social reforms²³ were undertaken to introduce flexibility in the labour market in hope of boosting employment. In 2006, the Bulgarian labour market was characterized by a relatively high degree of flexibility and relatively low levels of job protection and income security (Beleva et al., 2007). Still, new proposals continued to be made for further increasing wage flexibility as well as introducing greater flexibility in working time. In 2006, heated debates took place between trade unions and the IMF on the portability of seniority bonuses²⁴, with the IMF making this issue a conditionality for lending (IMF country report, No. 6/131, April 2006). In the same document, the IMF also indicated the level at which the minimum wage should be fixed for 2007.²⁵

What then do the World Bank's Doing Business Reports tell us about the level of labour market flexibility in Bulgaria? Table 2 displays the main components of the Employing Workers indicators for the country in 2006. They include the difficulty of hiring a new worker (second column), the restrictions on expanding or contracting the number of working hours (third column), the difficulty and expense of dismissing a redundant worker (fourth column) and an average of the three previous indices (the Rigidity of Employment Index, fifth column). The last two columns respectively provide figures for non-wage labour costs and firing costs. As explained before, higher values in the table indicate more rigid conditions. With a value of 47 in 2006 for the overall rigidity of employment, Bulgaria was ranked as "not so flexible" in terms of

²³ For example, the liberalization of employment protection legislation which has been radical and was carried out in 1992 and 2001. The approach has been based on a neo-liberal view of the State's role in the social sphere.

²⁴ The issue was linked to the portability character of the seniority bonuses: these bonuses could get in some sectors up to 30 per cent to the total workers wages with a + 0.6 per cent increase for each additional year of service; these bonuses were then automatically transferred when the worker changed companies. While the IMF insisted on removing the compulsory portability of the seniority bonuses, it also more generally called for a complete removal of bonuses as being a serious obstacle for hiring older workers.

²⁵ Under the following condition "the monthly minimum wage should not exceed 160 Leva (75 euros)".

hirings and firing rules, in particular if compared with the OECD countries and the regional average. In 2007, Bulgaria kept the same ranking.

As explained in the methodological section, two concerns emerge when building composite indicators: the choice of the variables aggregated and the weighting scheme used. Bulgaria's employment protection legislation (EPL) on regular individual contracts is actually one of the most flexible in the region, even more so than Slovakia, the regional deregulatory leader, as indicated by both measures of regular employment protection index given in table 3 (first two columns (1) and (2)). The first measure (1) is a subjective indicator based on the perception of employers;²⁶ the second (2) is based on the strictness of the legislation using the OECD methodology²⁷ (OECD, 1999), with a higher value indicating more restrictive labour regulations. But this quite liberal legislation for individual contracts is however not properly reflected in the Employing Workers' indicator which ranks Bulgaria at 100th place. This is due to the aggregation process that masks how easy it is to fire workers individually in Bulgaria; and second, to the weighting scheme which gives equal weight to EPL for regular contracts and EPL for temporary contracts, even though temporary contracts only represented 7.5 percent of employment in Bulgaria in 2005. Another important shortcoming relates to the strong focus on external numerical flexibility ignoring the issues of seniority bonuses and minimum wage levels, which are critical to the Bulgarian flexibility debate. These few arguments, while not comprehensive, highlight the partial and narrow approach of the Employing Workers' indicators, which does not correctly portray the actual degree of labour market flexibility in Bulgaria. Similar evidence could be provided for other Central and Eastern European countries, such as Romania or Lithuania. Hence, policy recommendations in the field of labour reforms should be formulated with great caution, and not be based on the Employing Workers indicators which are neither meaningful nor relevant.

Table 3. Other synthetic indicators of the stringency of Employment protection in Bulgaria and selected countries, late nineties and early 2000s

| | Regular EP Index | | Temp EP index | | Individual EP (Reg + Temp) index | | Collective dismissals | EP summary index |
|----------|------------------|-----|---------------|-----|----------------------------------|------|-----------------------|------------------|
| | (1) | (2) | (1) | (2) | (1) | (2) | | |
| Bulgaria | 0.17 | 2.1 | 0.5 | 0.9 | 0.34 | 1.50 | 4.1 | 2.0 |
| Hungary | 0.29 | 2.1 | 0.08 | 0.4 | 0.19 | 1.25 | 3.4 | 1.6 |
| Poland | 0.35 | 2.0 | 0 | 1.8 | 0.18 | 1.90 | 3.3 | 2.1 |
| Slovakia | 0.18 | 2.9 | 0.08 | 0.3 | 0.13 | 1.60 | 3.0 | 1.8 |
| Slovenia | 0.59 | 2.7 | 0.25 | 1.8 | 0.42 | 2.25 | 3.3 | 2.4 |
| CSEE* | n.a | 2.6 | n.a. | 1.3 | n.a | 2.00 | 3.3 | 2.2 |
| EU 15 | n.a | 2.4 | n.a | 2.0 | n.a | 2.2 | 3.4 | 2.4 |
| OECD | n.a | 2.0 | n.a | 1.8 | n.a | 1.9 | 2.5 | 2.0 |

(1) Based on Employers' perceptions (Pierre & Scarpetta, 2004)

(2) Based on OECD methodology (Cazes and Nesporova, 2007)

* Regional unweighted average for Central and South Eastern Europe

²⁶ Based on evidence on how employers perceive labour regulations and react when these are perceived to constrain the operation of their firm. Data are drawn from two separate business establishment surveys: the World Business Environment Survey (WBES) and the Investment Climate Survey (ICS). For details, see Pierre and Scarpetta (2004).

²⁷ The OECD methodology covers permanent and temporary contracts, as well as collective dismissals. In the case of permanent contracts it includes procedural inconveniences, notice and severance payment for no-fault individual dismissals, and difficulty of dismissals. A similar procedure is used for measuring the strictness of temporary contracts, including both fixed-term contracts and temporary work agencies, as well as for collective dismissals. The summary EPL strictness index then aggregates the three indices, assigning weights of 5/12, 5/12 and 2/12, respectively.

Argentina

Like Bulgaria, the Employing Workers indicator for Argentina masks a considerable amount of flexibility inherent in Argentine labour law. But unlike Bulgaria, the Employing Workers indicator has had little influence in the policy debates in Argentina concerning the labour market, as the country went through a series of labour reforms in the 1990s and 2000s, originally towards deregulation but later toward re-regulation.

At the beginning of the 1990s the Argentine government undertook sweeping economic reforms which included trade and financial liberalization, privatization of state-owned industries, and the establishment of a fixed parity with the U.S. dollar in March 1991 in an attempt to ensure price stability. Initial labour market reforms were implemented in 1991 with the idea of making the labour market more responsive to economic restructuring. Further reforms were made in the mid-1990s in an attempt to mitigate the rising levels of unemployment under the belief that by lowering the cost of labour, employers' demand for workers would increase. As a result a number of exemptions were given to reduce non-wage labour costs. A cap was placed on severance pay and "promoted" temporary employment contracts were introduced that exempted employers, either partially or totally, from having to pay social security contributions. In 1993, an across-the-board-rebate on social security taxes was decreed, which resulted in annual foregone revenue equivalent to 1.2 percent of GDP (Marshall, 2004). In 1995, trial contracts and part-time work were made legal. Moreover, because of the convertibility programme, wage increases were prohibited unless the firm could demonstrate productivity increases that justified an increase in salaries. The minimum wage remained fixed at its August 1993 level.

Flexibility was also pursued through collective agreements. Collective bargaining was decentralized by allowing firm-level agreements to supersede agreements negotiated at the industry level. In addition, small firms, with up to forty workers, were given additional scope for modifying, via collective agreement, provisions in the law (Beccaria and Galin, 2002). The shift to firm-level negotiation was dramatic. In 1991, negotiations at the firm level represented only 19 percent of agreements, while in 2002 they accounted for 82 percent of agreements. Flexibility clauses, concerning working hours, contracts and organization of work featured prominently in the agreements signed during the decade (Novick, 2001). In addition, there were few labour inspectors in the 1990s and penalties for transgressions were low, prompting many employers to hire off-the-books.

But despite these ambitious efforts, the labour market situation worsened along with the overall economy. Liberalizing the goods and financial markets in a period of real exchange rate appreciation hurt Argentine industries to the detriment of its workforce. As a result of appreciation, labour costs measured in dollars rose, even though real earnings in pesos stagnated (Frenkel and Ros, 2003). Unemployment climbed steadily during the 1990s peaking at 21.5 percent in May 2002, at the height of the economic crisis. In addition, the number of workers without work contracts rose by sixty percent from 1991 to 2001, due to the weakening of the labour inspectorate and despite the introduction of contracts that were exempt of social security contributions.²⁸ Inequality worsened and by 2002, nearly fifty percent of households were under the poverty line.

Since 2003, Argentina's economy has grown vigorously, averaging 9 percent annual growth. The devaluation of the exchange rate made the economy much more competitive, resulting in a boom in exports and job growth in these sectors. Furthermore, in an effort to increase the purchasing power of workers the government has since July 2003 nearly tripled the real value of the minimum wage, after being fixed for a decade at the rate of 200 pesos per

²⁸Data from presentation given by Dr. Carlos Tomada, Minister, Ministry of Work, Employment and Social Security, Republic of Argentina, to the Governing Body of the ILO, March 2005.

month.²⁹ In addition, an important number of workers increased their wages through collective bargaining. The government eliminated the “promoted” temporary contracts and though probationary contracts were still allowed, they were now subject to social security contributions and other mandatory benefits and restrictions were put in place to ensure that companies did not abuse them.³⁰ In an attempt to discourage dismissals, the government also doubled severance pay.³¹ Nevertheless, mobility continues to be high, maintaining its rate of 39% job rotation per year in private, formal employment since the late 1990s (Castillo et al., 2006). The government also strengthened the labour inspectorate and developed a programme to regularize work contracts, in order to ensure that workers have full social and labour protection. As a result of inspections, 25 percent of identified undeclared workers became registered. Unemployment has been sharply reduced and in early 2007 stood at 9.7%. Inequality has also decreased and the number of households below poverty has fallen to around 30 percent.

What are the lessons of the Argentine experience and how does this relate to the Employing Workers indicators? To begin with, the Argentine experience shows that lowering labour costs will not create jobs rather it will worsen conditions of work, increase inequality and potentially harm the social fabric of society. When relative prices do not discriminate against labour and when an economy is growing, job growth will prosper as well. Although no such time series exists, if there were a labour market rigidity index dating from 1990, we could plot the series of legislative changes from ‘rigid’ at the beginning of the decade, to ‘flexible’ in the mid-1990s to ‘moderately rigid’ by the mid-2000s. Yet such a line would be inversely related to the rise and fall of unemployment as well as to the incidence of irregular work contracts. The Argentine experience also demonstrates the importance of strong institutions. A strong labour inspectorate is needed to ensure that the law is enforced and that working conditions are respected. Collective bargaining is also an important tool for negotiating working conditions that ensure workers’ needs while giving some flexibility to the firm. Yet this principle remaining legacy of the labour market reforms of the 1990s is not captured in the Employing Workers index. Thus not only does the Employing Workers index gives an incomplete picture of the flexibility inherent in the Argentine system, it promotes policy deregulation, which in the Argentine case has been shown to be ineffective for job creation, though effective for worsening working conditions.

5. Conclusion

This paper has attempted to point out the serious conceptual and methodological problems that surround the Employing Workers index of the Doing Business indicators as well as the risks of formulating policy based on these indicators. It has illustrated this through the examples of Bulgaria and Argentina. Although it is difficult to build indicators that capture the complexity of labour laws, how they interact with other policy variables, and the different types of flexibility that exist in a labour market — it can be done. As demonstrated in this paper, there are a number of conceptual problems in the indicators including a simplistic “regulations are costs” perspective that negates many of the beneficial externalities associated with labour laws and

²⁹ In nominal terms, the minimum wage has been increased incrementally reaching 800 pesos per month in December 2006.

³⁰ In particular, by consecutively employing different workers under these contracts for the same permanent job.

³¹ The government stated that once unemployment fell to below ten percent, the amount of mandated severance would revert to its original level.

which are, in effect, the *raison d'être* of labour law. Moreover, the index disregards the provisions set forth in numerous International Labour Conventions and even tends to discourage countries from abiding by many of the International Labour Conventions of the ILO. It also fails to consider that labour laws are often part of a package of complementary laws and policies aiming to achieve a particular policy objective. In particular, by focusing on external numerical flexibility, it neglects other important channels of labour market adjustment, such as wage flexibility or functional flexibility. Finally, tripartite negotiation and collective bargaining are other important means for achieving a dynamic and responsive labour market, but they too are not considered in the index.

On the methodological side, the index suffers from overly rigid assumptions – a worker with 20 years of tenure working in a firm with more than 200 employees – that is not representative of the world of work, particularly in developing countries. It is also not clear why the index chose to focus on the variables it did. The choice of questions is arbitrary and no economic analysis is provided to substantiate these decisions. In addition, the index does not account for the diversity of solutions offered by different national legal systems. It also ignores questions of compliance when assessing the rigidity of particular regimes. There are also concerns about the subjectivity of responses, the choice of aggregation and the coding.

The objective of the Doing Business Index and its Employing Workers Index is to propel policy change in countries. Each annual report lists the best reformers and applauds those countries that have improved their score. The index would favour a country that eliminated severance pay to one that replaced severance pay with unemployment insurance, despite the economic and social benefits of providing a safety net. The index is based on a myopic view of the labour market that if adhered to cannot guarantee improved economic performance or employment. It thus sends misleading policy messages that, if implemented, risk hurting workers but also business and the economy in general.

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Appendix 1. Methodology of DB's Employing Workers Index³²

The Doing Business Index assigns a score to each country for the subcategories that is then tallied. The rankings of the individual indices as well as the overall Doing Business index is computed based on these scores. The scoring of the five Employing Workers categories is as follows:

Difficulty of Hiring Index

Can term contracts be used only for term tasks?

[Score: Yes=1; Can be used for any task=0]

What is the maximum duration of term contracts? (in months)

[Score: 1 if max. < 3 years; 0.5 if between 3 and 5 years; 0 if 5 or more years]

What is the ratio of mandated minimum wage to the average value added per worker?

[Score: 1 if ratio > 0.75; 0.67 if 0.75 > ratio > 0.50; 0.33 if 0.5 > ratio > 0.25 and 0 if < 0.25]

Rigidity of Hours Index

Can the workweek extend to 50 hours (including overtime) for 2 months per year?

[Score: Yes = 0; No=1]

What is the maximum number of working days per week?

[Score: If equal to or greater than 5.5 then 0; if less than 1]

Are there restrictions on night work?

[Score: If restricted, then 1; if not restricted then 0]

Are there restrictions on weekend work?

[Score: Yes = 1; No=0]

Is paid annual vacation equivalent to 21 working days or fewer?

[Score: Yes = 0; No=1]

Difficulty of Firing Index

Is the termination of workers due to redundancy legally authorized?

[Score: Yes = 0; if No then 10 and the rest of the questions do not apply]

Must the employer notify a third party before terminating one redundant worker?

[Score: Yes = 1; No=0]

Does the employer need the approval of a third party to terminate one redundant worker?

[Score: Yes = 2; No=0]

Must the employer notify a third party before terminating a group of redundant workers?

[Score: Yes = 1; No=0]

Does the employer need the approval of a third party to terminate a group of redundant workers?

[Score: Yes = 1; No=0]

Must the employer consider reassignment or retraining options before redundancy termination?

[Score: Yes = 1; No=0]

Are there priority rules applying to redundancies?

[Score: Yes = 1; No=0]

Are there priority rules applying to re-employment?

[Score: Yes = 1; No=0]

³² Based on methodology given in Doing Business website, accessed on 25 July, 2007.

The *Employing Workers Index* is the average of the Difficulty of Hiring, Rigidity of Hours and Difficulty of Firing indices, scaled from 0 to 100.

The *Firing Cost indicator* measures the cost of advance notice requirements, severance payments and penalties due when terminating a redundant worker, expressed in weekly wages.

The *Hiring Cost indicator* (also referred to as Non-wage labour costs) measures all social security payments (including retirement fund, sickness, maternity and health insurance, workplace injury, family allowance and other obligatory contributions) and payroll taxes associated with hiring an employee. In 2007, this indicator was shifted to the paying taxes indicator and added to the total taxes paid as a percentage of profits.

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