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Optimal Global Configurations and Effects of Labor Market Flexibility and Security

by

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ABSTRACT

“Flexicurity” denotes an optimal configuration of flexible labor legislation and secure social protection. But how much and which combination of flexibility and security are advantageous, and for whom? This paper outlines different configurations of employment protection laws (EPL), collective relation laws (CRL) and social protection around the millennium. In accord with this regime notion of socio-economic protection, these three continuous workers’ rights indices are used to typologize nation states globally employing cluster analyses. These clusters are scaled by their relative proximity to each other and compared using both labor market and macroeconomic outcomes.

Keywords: Labor market legislation, unions, global, cluster analyses, unemployment

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Introduction

This paper analyzes how much and which labor market flexibility and security combinations — “flexicurity” — are advantageous and who benefits. The concept of flexicurity moves beyond a labor market “rigidity” discussion to analyze optimal configurations of labor legislation and social protection for labor market efficiency and socio-economic well-being.

The premise is that only the totality of legal statutes and loopholes mirrors the protection status of any given worker. In accord with this regime notion of socio-economic protection, global flexicurity combinations among nation states are delineated by a cluster analysis of three indices: (1) Employment Protection Legislation (EPL):¹ laws covering dismissals of permanent workers and the contract modalities of temporary workers; (2) Collective Relations Legislation (CRL): indicating collective bargaining procedures and union strength; and (3) social protection: legislation covering unemployment, health and pensions. These three continuous variables together outline the degree of legal security workers are afforded in their countries.

In the heated discourse under headings such as “Eurosclerosis” or labor market “rigidities”, general postulations abound about adverse labor market and other macroeconomic effects of these three types of securities. However, the data wielded in this discussion is almost exclusively confined to OECD countries. Moving beyond the simplistic Europe-USA dichotomy, this paper establishes a more fine-graded assessment of institutional regulations and socio-economic outcomes. The first contribution of this paper is to extend the discussion geographically by establishing different clusters along a security-flexibility continuum. The second contribution is to broaden the discourse substantively to uncover synergies and trade-offs between indicators of societal well-being that different labor law regimes bring: Rather than just focusing on labor market inclusion/exclusion indicators (total and youth, male versus female unemployment rates), the spectrum of outcome indicators is enriched by social justice (Gini coefficient and poverty rates) and economic performance (GDP growth) measures.
**Literature discussion and operationalization: Trends and effects of labor power and social protection**

“Flexicurity” here denotes an optimal configuration of labor market flexibility and social security (Keller and Seifert, 2002). The first part of the literature review outlines the context of the “flexicurity” discussion, then delineates the genesis and prior applications of the term and lastly explains the value-added of this paper taking a more global approach by pointing to the shortcomings of OECD-based discussions. The second part discusses each of the cited “labor market rigidities”, or put differently flexibilities and securities, and their trends in greater depth. Lastly the ground is set for their operationalization.

*Definitions of "Flexicurity": Genesis and connotations*

Conceptually, the flexicurity debate can be grouped with the current third way discussion spawned by Esping-Andersen's "three worlds of welfare capitalism" (Esping-Anderen, 1990). The “third” way pertains to a golden middle way between a hypothetical “European” and “US” model that has dominated much of the labor market rigidity discussion.

Often ignoring disparities between European countries and across US states, these two “ways” of regulating labor have been compared and contrasted on a few indicators and then (mis)used for general postulations. According to neo-liberals, European labor markets are crippled by Eurosclerosis, a disease brought forth by affording workers too much dismissal protection and bargaining power and leading to high unemployment rates. In contrast, the US labor market, unencumbered by too much labor protection, boasts an “employment miracle”, declining unemployment rates despite a growing population and rising labor force participation rates, especially among women. The labor market rigidity discussion gained full momentum in the late 1980s and early 1990s after the ever more fervent demands to import the US model to European and developing countries.

However, the strict dichotomy between the unsuccessful European and the successful US model is erroneous; the performance assessment depends crucially on three factors:

First, *which indicators* are employed: Typically, the most commonly used measure for the comparison is the total unemployment rate. However, as Howell (2005) and others argue, this measure
poorly describes the state of worker welfare levels or labor market efficiency. If other measures of welfare than the total unemployment rate are employed, such as GDP growth, the US scores neither consistently higher nor even the highest at any given point in time (see Figure 1: Comparing performance on GDP per capita growth). This point highlights the importance of parameter choice. For instance, if the point of comparison were working poor, the US may rank lowest.

Second, which countries are compared: Even if, for the sake of argument, we use the total unemployment rate as the sole comparison, the US is not consistently the star performer. The unemployment rate of continental European States such as Italy, France, Germany and Spain hovered near or over the 10 per cent mark but Austria, Norway or Luxembourg’s unemployment rates of less than 5% outperformed the US over a 20 year period as figure 2 shows (see Figure 2: Comparing performance on unemployment).

Third, which reference period is used: Again, even if, for the sake of argument, only the continental European States are examined, many fared better in the 1970s than the US and are on the upward trend in the new millennium. The neo-liberal counter argument is that the sclerotic structure of the European welfare system could not recover from the oil shock. Therefore pre-1973 is not a valid reference period. If we assume this to be true and only compare the time periods 1980 to 2000, the answer as to whether France or the US scores better on unemployment, depends on whether 1980 or 2000 are compared (see Figure 3).

In lieu of erroneously postulating the US as the paragon of a flexible model that should be applied to all nations, researchers have begun to look for fruitful ways of combining both “flexibility” and “security”. Demands for “flexibility” are typically associated with easing employment protection legislation (EPL) and with shifting the balance in the collective relation regulations in favor of the employer. Security implies “social protection” in the form of non-wage income, typically unemployment insurance and active labor market policies but conceivably also health or pension benefits.

Any combination of “flexibility” and “security” is called “flexicurity”. The genesis of the term is perhaps most closely associated with the Danish model, which combines high unemployment benefits
with low dismissal protection (Algan and Cahuc, 2006). The term itself was coined in a debate that gave way to a “law on flexibility and security” in the Netherlands in 1997, which facilitated the use of temporary jobs, while introducing more securities. For instance, temporary agency firms were obliged to offer unlimited contracts to their personnel after three years of temping. Despite the high unemployment benefits, Denmark could report high labor market participation rates; a model Madsen (2002) has deemed “a paradise—with some snakes”.

Conceptually, the idea originated at the Labor Market department of the Science Centre for Social Research in Berlin (WZB) within research on transitional labor markets. The argument was that in a time of increased labor market volatility because of globalization and new social demands (e.g. for balancing work and family life) new securities for those transitioning in the labor market had to be developed (see Schmid, 1995, Auer and Schmid, 1998, Schmid and Gazier, 2002). In this environment Ton Wilthagen, now very influential in European “flexicurity” policies, published his first piece on flexicurity (see Wilthagen, 1998). Concomitantly, the European Commission’s forward thinking unit developed ideas on a possible trade-off between employment protection legislation and “generous” unemployment benefits (Buti et al. 1998).

Like most successful models, the Danish model raises questions about its applicability to other contexts. Keller and Seifert (2002) apply the "flexicurity" concept to the various forms of atypical employment relationships within the institutional framework of Germany to establish a viable alternative to solely increasing flexibility. Four central and interlinked elements are crucial for a successful “flexicurity mix”: transitional labor markets, collective bargaining policy and working time policy, both aimed at safeguarding employment, life-long learning and a basic level of welfare (ibid.).

Safarti and Bonoli (2002) cast the net wider in their consideration of optimal configurations of social protection systems and labor market structures. While outlining employment stability and flexibility in industrialized countries, including the Danish flexicurity model, the developing world is not adequately integrated.

Algan and Cahuc (2006) argue that even among European countries, the efficiency of the Danish flexicurity model cannot be replicated due to cultural differences. In particular, they argue that
Continental and Mediterranean European countries cannot successfully implement the Danish Model because their citizens lack the required “public-spiritedness” leading to moral hazard issues regarding social protection mechanisms, particularly public unemployment insurance.

The key question here is not the applicability of the Danish model. It is how to evaluate what Auer et al. (2005) and Auer (2007) have called "protected mobility", of which the Danish model is but one example. Which countries perform well on labor market and macroeconomic indicators while combining both flexibility and security?

The major impediment of most studies addressing this question is that they focus on a relatively small and, on a global scale, homogeneous number of developed countries when assessing the effects of protective labor legislation on employment (Nickell, 1997, Nicoletta and Scarpetta, 2001, OECD, 1999) or unemployment (Elmeskov, Martin, and Scarpetta, 1998, Siebert, 1997, Blanchard, 1998, Franz, Steiner et al., 1998, in Ochel, 1998, Nickell, 1997). As Heckman and Pagès (2004:63) argue, in most OECD-based literature, the “sample variation in regulations and institutions may be too limited and the level of aggregation too great to capture any effects of regulation on employment”.

Furthermore, Nickell (1997) argues that the insufficient variation argument holds not only for cross-sectional but also for longitudinal analyses as labor market institutions in Europe have, roughly speaking, stayed the same since the 1970s.

Though the empirical evidence is informed largely by this small sample of fairly homogeneous Western OECD countries and the baseline of developing countries may be very different from those found in developed countries (some countries already having few regulations), the conclusions of the debate are applied to developing countries, “many of them coming under strong pressure to deregulate their labor markets” (Baker et al., 2004: iii). Multinational institutions began promoting deregulation in the 1990s; for example in the OECD’s 1994 report and, more so, in the 1997 “Implementation of the Jobs Strategy report” and the IMF’s “Unemployment and Labor Market Institutions: Why Reforms Pay Off”. The first goal here is thus to provide a broader perspective by integrating developing countries into the analyses.
The second goal is to provide an overview of de facto combinations of flexible and protective labor legislation. As Baker et al. (2004) argue, many of the claims that unemployment is solved through structural reform are based on “the assumption that in absence of protective labor market institutions, text-book-style competitive labor markets would prevail” (Baker et al., 2004:2003). However, if labor markets are inherently and non-trivially imperfect, the absence of a social protection mechanism may well lead to clientelism and crime rather than the perfect competitive ideal. Workers may respond to insecurity with more 'black market' work, or they may drop out of the labor market entirely. Thus “paring back the welfare state may lead to greater detachment form the labor market”(Howell et al., 2006:11).

As Baker et al. (2004:16) argue, “evidence does not suggest that there is a single model that guarantees successful employment performance”. A richer understanding of diverse combinations of (in)security across the world and their welfare correlates may help move the discussion beyond misleading USA-Europe dichotomies, erroneous OECD-based prescriptions, or strict advertisement of one-case-based “success stories” which may not be applicable in other contexts. Looking at worldwide labor regulations and a wide array of their de facto outcomes, not theoretical deductions based on textbook models, may thus serve as a bulwark against any rushed conclusions. The following section discusses the three most cited rigidities and their operationalization.

Three indicators of labor market “rigidities”

When explaining the allegedly inferior European labor market efficiency relative to the US since the oil shock, the most cited “rigidities” neo-liberals see as influencing labor supply and demand adversely are: Employment Protection Legislation (EPL) because tenure protection decreases labor demand; Collective Relations Legislation (CRL) because unions affect labor demand by increasing wage and employment protection levels; social protection in the form of a very generous system of non-wage income lowers labor supply because alternate forms of income increase the reservation wage (Siebert, 1997).”

The two main variations of the rigidity story are that high levels of social protection limit the ability of economies to adjust to shocks and that changes in social protection institutions explain
employment outcomes (Howell et al., 2006). Others argue that the evidence proving these claims is “largely inconclusive” (Baker et al., 2004: iii). The case of weak labor markets institutions and low unemployment should be set against cases of strong labor market institutions and low unemployment (ibid). The synergies of these institutional characteristics also play a role. As Baker et al. (2004:2) argue, poorly matched components of a social protection system may have “substantial negative effects on employment opportunities”. Auer (2000) has shown this convincingly for four European countries. Yet another school of authors argues that it is also misleading to diffusely speak about the “rigid” European labor market since there is great diversity in institutions and regimes as well as in unemployment rates. Nickell (1997) argues that some institutional characteristics of European labor markets further the rise of unemployment rates and others do not.

The following sections provide an overview over recent global changes in EPL, CRL and social protection and ways to operationalize them. To goal is to position countries in a three-dimensional flexibility-rigidity matrix.

**Labor power I: Employment Protection Legislation (EPL)**

Employment Protection Legislation (EPL) decreases the firm’s ability to adjust the number of (wo)man hours or heads, depending on the country, needed at will. Since the 1980s international agencies such as the IMF, OECD and the World Bank have pressed governments to erode EPL in the name of reducing labor market rigidities in lieu of encouraging more “contingent” working, via temporary labor, agency labor, and part-time work. The reason is, so the argument goes, that EPL has the unintended, negative effect of increasing unemployment due to anticipatory effects. Employers foresee high dismissal costs during an economic slump and thus prefer to take on fewer regular employees than necessary if the prospective dismissal costs are too great (Siebert, 1997). As wages are sticky, employers cannot compensate for a decrease in product demand or productivity by lowering wages (ibid.). Besides increasing the total unemployment rate, EPL may adversely affect the unemployment and labor force participation rates of marginalized groups such as females and youth, as well as pushing more workers into the informal economy, leading to more shadow work (Heckman and Pagés, 2004).
There is little discussion about where to draw the line between too little and too much rigidity or which forms of flexibility are most (un)desirable. E.g. what dismissal notice period is Pareto efficient or which form of overtime regulation and cost structure is optimal? The US was simply hailed as the right model while Europe was argued to simply have too much arbitrary dismissal protection.

De facto, there has been an increase in industrialized countries of casual and temporary labor, subcontracting, telework, agency labor, etc (Standing, 1999). With shrinking public sector employment relative to private sector employment, security has eroded where it was strongest. Top companies plan to achieve higher turnover rates (ibid.).

There is considerably less literature on developing countries. Interestingly, Heckman and Pagés (2004:31) argue that “once advance notice, compensation for dismissal, and severance pay are added, we find that the cost of job security provisions is much higher in the poorer LAC region than in the richer OECD sample” because “regulations are a low cost way (from the point of government fiscal authorities) of providing social insurance to protect workers”. Therefore, “rigidities” are often more severe in lower income countries than in the high income OECD world (ibid., p. 7). However, in large parts of the world, objective employment security has weakened in recent years, while not improving in countries with traditionally weak or non-existent employment security (ILO, 2006).

In pursuit of a more fine-graded criteria roster and considering that differing arrangements may be functionally equivalent, the burden of labor legislation here is conceptualized fourfold:

First, the labor legislation burden is operationalized as a cost of regular employee tenure security. This is measured by *dismissal costs* for permanent employees. Second, the *autonomy of employers in dismissal procedures* is measured. Does the employer have to consult a third party? Can they determine which employee to fire? The third component of the index is the *accessibility of alternative employment contracts* that allow for hassle free hiring/firing. Temporary contracts are one way to circumvent stipulations surrounding permanent employees. The availability of part-timers with insecure employment tenure or other alternative employment contracts facilitates an ‘accordion’ style of management. The company no longer needs to hire for peak times but, rather, can employ a small number of regular employees. Laws governing tenure or task restrictions of temporary staff are
therefore included in the EPL index. Galiani and Hopenhayn (2006) find that in Argentina, temporary contracts increase hiring and substitute long-term for short-term hiring. They also tend to increase turnover and reduce skill training of workers on the side of firms.

Fourth, the cost of overtime is measured: Hiring more workers for a job is one alternative; obliging workers already on the payroll to work more is another. As overtime is to some extent a functional equivalent of hiring new hands, another component of EPL here is the cost of increasing hours worked. While in Europe the amount of overtime is limited, in the US it is not (Siebert, 1997).

Labor power II: Collective Relations Legislation (CRL)

Although the rights to unionize and bargain collectively are fundamental labor rights, governments and certain international agencies have targeted unions on the grounds that they raise labor costs and contribute to rigidities in employment and working practices (ILO, 2006). Unions, the argument goes, are one of the chief institutional characteristics that impede wage and unemployment elasticity because this “wage cartel” increases unemployment via “unrealistic” wage demands and benefits and by tightening EPL (Siebert, 1997).

The evidence is unequivocal that unions do tend to raise wages of their members compared with other groups of workers (Budd and Na, 2000, ILO 2006, World Bank, 1995). Many studies show that, controlling for personal and other characteristics, there is a “union premium”, e.g. in Bangladesh, Brazil and Tanzania (ILO, 2006). The effect of unions on wages is not uniform, however, being less pronounced in Eastern Europe but evident in countries like Malaysia, Indonesia and the Philippines (ILO, 2006). Unionized workers are also more likely to receive benefits.

This wage increase may, or may not, lead to higher labor costs as the wage premium may be due to higher, union induced, productivity such as unions contributing to “skilling” the labor force and increasing its functional flexibility (ILO, 2006). Unions may also serve as low cost management structures, their absence mandating employers to hire more control and management personnel (Nickell, 1997). Likewise, benefits often attained by unions do not necessarily increase labor costs. Nickell (1997) argues that benefits of union members constitute in-kind wages that are subtracted from employee wages except when wages are protected by a minimum wage.
The suppression of unions may even increase the factor price of labor. To fend off unionization incentives, many governments feel pressured to appease workers in the formal sector through privileges like high wages (e.g. Kenya, Congo, Zambia, Sudan) resulting in labor market imbalances (World Bank, 1995).

How unions affect the wages and employment of non-union members is more contested. The wage increase of union members can drag up the wages of workers in non-unionized workplaces (Boeri et al., 2001), sometimes in the effort to reduce incentives to unionize. Others only point to negative union externalities; Siebert (1997) argues that unions are not inclined to reduce their demands to take the effect on non-union members into account and thus increase unemployment by high wage demands in all but the tightest labor markets.

However, worldwide union membership has been decreasing while unemployment has not followed in lock-step. According to the ILO’s World Labor Report, in the time period between the mid 1980s and the mid 1990s, 51 percent of the countries in the study reported a decrease in union membership of more than 20 percent, while 25 percent reported a decrease of 25 percent (Leisink, 1999). This trend has continued in recent years: Across the world there has been widespread de-unionization, particularly in industrialized market economies (ILO, 2006).

Another problem is that many unions are not independent. In Argentina, Mexico, Peru and Brazil, the State accredits only chosen unions with “representative authority”, and in Argentina and Mexico the State also intervenes in the conflict resolution and arbitration process (Heckman and Pagés, 2004:11).

These examples highlight that the unionization rate is not necessarily a good reflection of union power. High unionization rates when unions constitute the extended arm of the State are not valid indicators of labor power. Conversely, in France, for instance, though the numbers of unionized workers are low, the possibility of wildcat and solidarity strikes grants unions tremendous leverage. Mere percentages reflect little; they do not adequately represent very different union structures with different bargaining and representation capabilities (ILO, 2006).
In lieu of the per cent of workers unionized, the “union density” as used by Howell et al. (2006), this paper employs the collective relations legislation index (CRL). The CRL measures the protection of collective relations laws as the average of: (1) labor union power reflecting rights around unionization and representation and (2) collective disputes measuring the leverage that unions are able to exert through disruptive action. The indicators of Botero et al. (2004) were cross-referenced with other data, e.g. from legal data from the ILO Socio-Economic Security Primary Database.

**Social protection: Social security and benefits**

Social protection benefits can come in many guises: Unemployment or health insurance, pensions or any other age-based (child support), need-based (welfare) or universal state transfers are all central to income security.

The factors constituting the social protection index here, also called social security laws index, are: old age benefits, disability and death benefits and unemployment benefits. It could be argued that these three components should not be put into a single index. Arguably, protection mechanisms against income loss due to ill health and old age do not strictly constitute a functional equivalent of unemployment benefits. However, old age or disability benefits have in many countries functioned as a kind of unemployment compensation in kind through early retirement schemes. Moreover, the logic regarding the adverse effects of benefits extends to all of these benefits: A generous system of non-wage income, particularly unemployment insurance, affects wages and thus unemployment via two mechanisms: (1) By decreasing the fear of unemployment and therefore increasing wage demands; (2) by making the unemployed choosier, it reduces the potential of the reserve army to rapidly fill vacant positions (Siebert, 1997). All three components provide significant sources of non-wage income increasing what Auer et al. (2005) have called “empowerment on the labor supply side”. According to an OECD (1994) study, “if unemployment is to be kept low, it is vital to limit entitlements to benefits and refuse people who are not available for work, and give employers and local governments incentives to tackle employment problems”.
Old age, disability and death benefits

Since the 1980s, there has been a concerted strategy to promote the privatization of pension schemes and a shift from defined benefits to defined-contribution schemes modeled to a greater or lesser degree on the Chilean individual accounts pension system introduced in 1981 (ILO, 2006). In 1990, this became a concerted effort by international organizations with the World Bank’s influential report, Averting the Old Age Crisis, 1994, which stated, “the first step is to reform the public pillar by raising the retirement age, eliminating rewards for early retirement … downsizing benefit levels … and making the benefit structure flatter. The second step is to launch the private pillar”. There has since been a marked shift away from the classical variants of the Bismarckian and Beveridge models that have constituted the models to insure against the vicissitudes of age for over a century.

Sickness and health benefits

In some developed and almost all developing countries, the absence of a universal health care system constitutes the main source of insecurity (ILo, 2006). In the last decade, countries have been pushed to privatize, most notably by the WTO’s General Agreement on Trade in Services, cut spending and enable private companies to provide (or compete with) public services and decentralize (Lethbridge 2002).

The trend to decentralize responsibility to local or regional bodies reduces the central governments political exposure although it retains budgetary control; often central governments merely transfer funds for an “essential health package” of 10–15 interventions or services as recommended by the World Bank (Laurrell, 2003, ILO 2006), contributing to geographic disparities in quality, access, and citizens’ costs.xvi

Unemployment benefits

An ILO (2006:106) report finds: “Unemployment benefits have been one of the main pillars of the social insurance systems of industrialized countries. But they have been withering almost everywhere, and have scarcely spread to developing countries, even though they were proposed for a number of East Asian countries in the wake of the 1997–98 Asian crisis, and were introduced in the Republic of
Korea.” Although unemployment benefit schemes have been under strain more countries have such a scheme than in the 1980s, mainly because many Eastern European countries introduced them after the fall of communism when open unemployment emerged (ILO, 2006).

Unemployment coverage correlates with country income even though variations in benefits and coverage are large, up to the factor four if the measure is the cost of the program relative to GDP (ibid). Likewise, replacement rates and eligibility criteria vary.

*Indicators of workers’ welfare*

As argued above, an Achilles heel of much labor market flexibilization advocacy is the assumption that in the absence of protective labor market institutions, text-book style competitive labor markets would prevail although labor markets are inherently and non-trivially imperfect (Baker et al., 2004:2). These analyses delineate how the cumulative effect and interaction of legislation governing employment plays out in actual country clusters, including countries with little to no protection. But which outcome indicators best serve to judge the effects of the clusters, interwoven legislative blanket constituting a social protection regime?

Howell (2005) argues that the most commonly used indicator, the unemployment rate, is a poor measure of both the state of worker welfare and labor market efficiency: “‘For instance, a highly developed labor market such as the United States could be operating at nearly full employment (…) despite the large numbers of adult active work seekers unable to find anything but part-time work at poverty level wages (as in the late 1990s)’. Thus such an economy should not get the same score on labor market performance as a country with the identical unemployment rate but a lower percentage of poverty-level wages, involuntary part-time, and discouraged workers (ibid.). Outcomes by which country cluster performance is judged in this analysis thus goes beyond total or youth unemployment statistics to include indicators of labor market *efficiency*, usefully employing available labor sources, as well as worker *well-being*.

The focus on *efficiency* also resonates with a strand in feminist literature strongly linking women’s emancipation to their income access. A central piece of the ‘Gender-and-Development-Approach’ (World Bank, 1997) is the more equitable representation of women in the current positions of power
Besides the direct effects associated with income, women also profit indirectly from better access to employment in the modern sector because it increases their bargaining position in the household (World Bank, 1995). A key non-discriminatory labor market efficiency indicator is the “gender blind” accessibility to employment. The outcome indicators by cluster chosen here include female labor force, female (per cent of total labor force) as well as ratios of female to male labor force participation and ratios of female to male unemployment rates.

Youth unemployment is included as much literature points to the differential impact labor market “rigidities” have on different demographic groups trying to break into the labor market such as young or migrant workers (Heckman and Pagès, 2004, 2003, 2000). As total unemployment may thus not reflect discrepancies in the equitable access to the labor market, youth unemployment is a second non-discriminatory labor market efficiency indicator.

A much debated, unintended consequence of stricter workers’ rights legislation is a push into the informal economy. To assess if low unemployment rates merely mask the displacement of workers into shadow work, employment in the unofficial economy is delineated by cluster as a labor market efficiency indicator.

The ultimate goal of any social policy is to increase the levels of societal welfare. Well-being indicators here include indicators of economic progress (GDP growth) poverty (population below US$1 a day) and equity (Gini index). Lastly, as redistributive government policies are incurred at a cost, the tax burden is outlined per cluster (highest marginal tax rate, individual and corporate rate).

Hypotheses, definitions, indicators

Hypotheses

The three null-hypotheses are:

**HO 1:** The more flexible a country (little EPL or union power and a loose social security net), the better its performance on labor market efficiency and well-being indicators.

The opposite hypothesis would be:
HO2: Countries with greater labor empowerment indicators (such as stricter EPL, more union power and a tighter social security net) perform similarly or better on labor market efficiency and well-being indicators.

Both of these hypotheses, though logically deducible from the above literature discussion, suggest a strict continuum of labor market efficiency and society welfare in one or another direction. Thus the third null hypothesis would be:

HO3: Rather than a strict continuum of labor market efficiency and society welfare along the flexibility-rigidity continuum in either direction, the relationship between the protection of employee and employer protection is an inverse U-shape with an obvious middle ground.

Definitions

As argued above, only the totality of the provisions, the labor law “regime”, adequately mirrors the protection status of any given worker. The term “regime” connotes “that in the relation between state and economy a complex of legal and organizational features are systematically interwoven” (Esping-Andersen, 1990:2). Thus, rather than juxtaposing countries on the basis of one or two variables, a regime approach is employed to guarantee a more valid operationalization of labor power. Employment tenure protection can come in various forms: In the form of legal contractual stipulations or strong unions able to negotiate time-sharing of work allowing workers to maintain employment, as in the case of Volkswagen. The following section outlines along which indicators countries are clustered into labor rights regimes.

Indicators

Similarly to Auer et al. (2005), the focus here is on de jure protection mechanisms. While, as Auer (ibid.) points out, de jure status does not always closely correlate with subjective attitudes, what is of interest here is the potential power workers have within a legal framework. The following variables, and their descriptions, are taken from Juan Botero, Simeon Djankov, Rafael La Porta, Florencio Lopez de Silanes and Andrei Shleifer (2004): "The Regulation of Labor", unless noted otherwise.
Data

The limiting factor in these analyses, as in any, is data availability and comparability. Including non-OECD countries further aggravates these problems of cross-national analyses. The variables operationalizing the concept are available for at least 85 countries around the year 2000 +/- 5.

The choice of indicators was also contingent upon maximizing reliable and valid comparability across the OECD and non-OECD world. For instance, the minimum wage stipulations proved not be a useful one-size-fits-all indicator, as it did not mirror a wage floor for most OECD countries. Highly developed OECD countries have often another mechanism of securing a wage floor other than a minimum wage across the board. In Germany, for example, the same function is often fulfilled by a “Flächentarifvertrag” (wages, working hours and conditions for certain industrial sector and geographic area) and not country-wide stipulations like a national minimum wage. Despite the drawback of any cross-country analysis using aggregate statistics across widely differing countries, examining such a wider sample of countries provides larger and exogenous variations and hence identifying power not found in analyses in most OECD countries (Heckman and Pagés, 2004:1).

Legal regime variables: Labor power and social protection

A detailed description of the variables is found in the appendix.

Labor power: Employment protection legislation (EPL)

The employment laws index measures the protection of labor and employment laws as the average of: (1) Cost of firing workers; (2) Dismissal procedures; (3) Alternative employment contracts; and (4) Cost of increasing hours worked.

Labor power: Collective relations legislations (CRL)

The Collective Relations Legislation index measures the protection of collective relations laws as the average of: (1) Labor union power; and (2) Collective disputes.
Social protection: Benefits index

The Social protection index is composed of the three variables. It thus measures social security benefits as the average of: (1) Old age, disability and death benefits; (2) Sickness and health benefits; and (3) Unemployment benefits.

“Outcome” variables: Labor market efficiency and macroeconomic indicators

As argued above, clusters generated on legal variables are compared and contrasted on a wide variety of desirable outcomes variables (see exact definition in the appendix): Unemployment, total (per cent of total labor force); Unemployment, youth total (per cent of total labor force ages 15-24); Unemployment male/unemployment female, 20-24 years old; Labor force, female (per cent of total labor force); Labor force female/ male; Employment in the unofficial economy; GDP per capita growth (annual per cent of GDP); Size of the unofficial economy; Size of the shadow economy as a percentage of GDP (varying time periods); Population below US$1 a day (only for non-OECD countries); Gini index; Tax burden: highest marginal tax rate, corporate rate (per cent); and Highest marginal tax rate, individual rate (per cent).

Sample: Worldwide

Theoretically, the sample is worldwide. De facto, coverage is a question of countries collecting, reporting or acknowledging data on certain topics. Different countries have or lack incentives to report to international agencies. Taking the World Development Indicator database of the World Bank as an example, countries with missing values tend to be either (a) very small, e.g. island states with a presumably insufficient State infrastructure to collect data, such as Sao Tome, Dominica, Bahamas, St. Kitts, St Lucia, etc., or (b) have civil strife/war like Afghanistan, or (c) belong to very rich oil states like Qatar or Kuwait, perhaps due to a lacking necessity of being assessed (and “helped”) by international agencies.
Methods: Cluster analyses

Logic of clustering

Cluster analyses can take several indices into account simultaneously to assess the similarities and dissimilarities of the units of analysis. In this case countries are grouped on the basis of employment law, collective relations law and social security laws. The rankings of countries on any of these factors individually can be found in the appendix. The advantage of clustering countries along these three dimensions simultaneously is that it takes the problem of functional equivalency into account when grouping nations along their worker protection legislation, e.g. a country having a weaker legal framework surrounding employment protection because strong unions fulfill this protective position.

Methods of clustering

There are two main methods: hierarchical and k-means cluster analysis. A hierarchical cluster analysis identifies relatively homogeneous groups of cases according to the selected variables based on an algorithm that starts with each case in a separate cluster and combines clusters until all cases form a single cluster. For recent applications and discussions of clustering, see the work of Wolfson et al., (2004) and McKernan et al., (2005).

After a cursory assessment via hierarchical cluster analyses, regarding the number of clusters the data fall into, k-means cluster analyses was performed. K-means allows an assessment of how (along which variables) and to what extent (cluster mean distance) they differ. Distances are again computed using simple Euclidean distance. Distance(x,y) = \sum (x_i - y_i)^2. As differences in scaling can distort the results, the variables here are standardized.

Results

The analysis is divided into OECD and non-OECD countries to take into account differing enforcement and uptake levels in OECD and non-OECD countries. Dismissal laws, when laxly enforced, arguably have a more negligible impact than laws backed-up by a functional system of compliance insurance. Social security laws may have a greater effect when they are not only on the books but mirror uptake and thus influence the distribution of welfare within a society as in OECD
countries. Ideally, a weighing of legal provisions according to the degree of uptake or enforcement would be possible. It is not due to lack of data.

To divide the analyses into OECD and non-OECD countries also constitutes an explorative attempt to gage if countries with similar compositions of worker protection legislation have comparable relative welfare outcomes within clusters. Real world parallels between these two universes may be instructive: If stricter EPL legislation leads to greater unemployment this should be true for developed and developing countries alike.

**OECD**

**Cluster grouping**

Cluster analyses yielded the following groupings (for OECD cluster descriptives see table 1).

The tables evidence quite a range among the standardized indexes with the collective action index having the greatest spread.

<table>
<thead>
<tr>
<th>Table 1: OECD cluster descriptives^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Tenure index</td>
</tr>
<tr>
<td>Collective action index</td>
</tr>
<tr>
<td>Social security index</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
</tr>
</tbody>
</table>

^a Zscores of normalized indices employed for analyses.

Table 2 arranges the clusters by relative distance suggested by distance between the final cluster centers with the Anglo-Saxon countries typically being the most flexible of the continuum regarding labor arrangements (with the exception of the social security laws) and the corporatist, continental countries affording the greatest security on all three indices (social security laws are again the exception, being very marginally higher in the European Flexicurity cluster). As the clusters are in a three dimensional space, the continuum is not strictly linear. The countries are ranked by their distance
to the cluster center within the three dimension space of each cluster. By cluster the findings are as follows.

Table 2: OECD final cluster centers

<table>
<thead>
<tr>
<th></th>
<th>Anglo-Saxon Labour flex</th>
<th>European Labour flex</th>
<th>European Flexicurity</th>
<th>Non-West OECD Securi-flex</th>
<th>Corp.-Cont. Triple-sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour-index EPL</td>
<td>-1.23</td>
<td>-.53</td>
<td>.63</td>
<td>-.37</td>
<td>1.03</td>
</tr>
<tr>
<td>Labour-index CRL</td>
<td>-1.73</td>
<td>-.02</td>
<td>-.59</td>
<td>1.00</td>
<td>1.32</td>
</tr>
<tr>
<td>Social security index</td>
<td>.61</td>
<td>.43</td>
<td>.89</td>
<td>.29</td>
<td>.86</td>
</tr>
</tbody>
</table>

Zscores of normalized indices employed for analyses.

**Anglo-Saxon Labor Flex:** New Zealand, United Kingdom, Canada, United States. New Zealand is thus the closest to the cluster center and the US is the furthest. This cluster consists of countries that exhibit low scores on the EPL and union power index while scoring modestly high on the social security index.

**European Labor Flex:** Belgium, Australia, Greece, Switzerland, Austria, Ireland. Somewhat similar to the first cluster concerning the relative mix of the three indices, this cluster, however, scores higher on all three. It consists of a Commonwealth country, the Celtic Tiger as well as Mediterranean countries. Australia and Turkey are the outliers, measured by distance from cluster center.

**European Flexicure:** Finland, Czech Republic, Denmark. This cluster scores much higher on the EPL and social security index, while union power is weak. Its cluster center is approximately equidistant from the Anglo-Saxon Labor Flex and Corporatist Continental Triply Secure, being a little closer to the latter. The hallmark of the flexicurity is not a specific degree of EPL laxness but rather some elemental form of social protection combined with the midrange EPL and CRL score, within the OECD group.

**Non-West OECD Securi-flex:** Korea, Republic, Mexico, Hungary, Turkey. This cluster stands out as having the lowest social security protection while scoring relatively high on the collective relation laws. The union power that this suggests may be misleading though as some of the countries, Mexico in particular, only allow state accredited unions. This cluster is very heterogeneous if measured by distance from cluster center with Turkey being the most different.
**Corporate Continental Triply Secure**: Spain, Germany, Italy, Portugal, Poland, Norway, Sweden, France, Netherlands. The latter three countries have a considerable distance from the cluster center with the Netherlands being furthest. A dendogram\textsuperscript{xxiii} suggested that Sweden could form its own cluster as well. This cluster is farthest from the Anglo-Saxon cluster and scores high on all three indices, reporting the highest scores of all clusters on EPL and union power.

**Outcomes**

The outcomes are placed along a continuum with the Anglo-Saxon countries being the most “flexible” and the Corporate Continental countries being the least flexible as suggested by Table 2: OECD Final Cluster Centers.

Arranging the countries along a continuum reveals that there is no clear linear progression along the security-flexibility continuum; see Table 3: OECD Labor market outcomes by clusters and Table 4: OECD Poverty, inequality and tax burden outcomes by clusters. Even concerning the most cited indicators, unemployment rates in total and of marginal groups, not every additional degree of flexibility coincides with lower incidences of unemployment. The most flexible European labor markets, the European labor flex, have total and youth unemployment rates comparable to those of the most rigid, the Corporate Continental Triply Secure.

To gage which differences constitute a significant difference, t-tests assess the magnitude of dissimilarity. All reported significances are at the .05 level at least.\textsuperscript{xxiv} Clusters are tested against all other clusters unless other comparisons are specified.

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Total unemployment\textsuperscript{c}</th>
<th>Youth unemployment\textsuperscript{d}</th>
<th>Female labor force\textsuperscript{e}</th>
<th>Fem./male labour force</th>
<th>Male unemployment rate (20-24y.)\textsuperscript{f}</th>
<th>Female unemployment rate (20-24y.)\textsuperscript{g}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anglo-Saxon Labour Flex</td>
<td>5.55%</td>
<td>11.92%</td>
<td>45.22%</td>
<td>0.63</td>
<td>13.41</td>
<td>10.32</td>
</tr>
<tr>
<td>European Labour Flex</td>
<td>7.92%</td>
<td>16.98%</td>
<td>38.90%</td>
<td>0.59</td>
<td>17.26</td>
<td>19.51</td>
</tr>
<tr>
<td>European Flexicure</td>
<td>6.12%</td>
<td>12.62%</td>
<td>44.52%</td>
<td>0.79</td>
<td>11.14</td>
<td>11.69</td>
</tr>
<tr>
<td>Corp.-Cont. Triple-Sec</td>
<td>7.90%</td>
<td>17.06%</td>
<td>43.07%</td>
<td>0.74</td>
<td>17.06</td>
<td>21.11</td>
</tr>
</tbody>
</table>

\textsuperscript{c}Unemployment total (% of total labor force)

\textsuperscript{d}Unemployment youth total (% of total labor force 15-24 y.)
Labor force, female (% of total labor force)


Table 4: OECD Poverty, inequality and tax burden outcomes by clusters

<table>
<thead>
<tr>
<th>Clusters</th>
<th>GDP per capita growth\textsuperscript{H}</th>
<th>Unofficial economy Size</th>
<th>Gini index\textsuperscript{1}</th>
<th>Individual highest marginal tax rate\textsuperscript{3}</th>
<th>Corporate highest marginal tax rate\textsuperscript{K}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anglo-Saxon Labour Flex</td>
<td>3.14%</td>
<td>12.63</td>
<td>0.37</td>
<td>36.78</td>
<td>34</td>
</tr>
<tr>
<td>European Labour Flex</td>
<td>4.19%</td>
<td>23.00</td>
<td>0.34</td>
<td>45.25</td>
<td>30</td>
</tr>
<tr>
<td>European Flexicure</td>
<td>2.18%</td>
<td>14.92</td>
<td>0.27</td>
<td>44.5</td>
<td>31</td>
</tr>
<tr>
<td>Corp.-Cont. Triple- Sec</td>
<td>2.31%</td>
<td>20.29</td>
<td>0.31</td>
<td>41.42</td>
<td>30.76</td>
</tr>
</tbody>
</table>

\textsuperscript{H} Annual GDP per capita growth (%), average 1996-2003
\textsuperscript{1} Last observation carried forwards and backwards for 1995-2004
\textsuperscript{3} Observations pertain to 2002
\textsuperscript{K} Observations pertain to 2002

T-tests reveal that the Corporate Continental Triply Secure model underperforms significantly regarding both labor market and macroeconomic statistics. The Anglo-Saxon model performs well on most labor indicators compared to all other OECD clusters: female labor force participation is significantly higher, while the young adult female unemployment rate is significantly lower. This cluster also reports a significantly lower incidence of unofficial economic activity. However, Anglo-Saxon countries tend to evidence significantly more inequality, especially when compared to the Flexicure.\textsuperscript{xxv}

On the other end of the flexibility-security spectrum, the Corporate Continental triply secure cluster, combining high social security benefits with strong dismissal protection and union power, underperforms significantly relative to all other OECD clusters on youth unemployment and female unemployment, both absolute and relative to that of males. On the macroeconomic indicators, the significantly lower growth rates stand out.

Comparing the Flexicure cluster to the Anglo-Saxon model reveals that the Flexicurity countries do not boast significantly higher incidences of unemployment while reporting a significantly lower Gini-coefficient. While the Flexicurity cluster reports a low share of informal economy and the lowest
Gini-index, the growth rates do not compare favorably with those of other clusters. Looking beyond labor market indicators reveals how much the choice of the preferred model is a judgment call contingent upon the ranking of favorable outcomes.

Non-OECD

Direct comparisons between the OECD countries and developing countries are difficult because OECD countries almost always have some form of social security provisions even if they belong to the flexible Anglo-Saxon model. Within these limits, the alternate sample of non-OECD countries can serve as a “counterfactual proxy”, pre-empting unjustified extrapolations or universal laws. For instance, while more union strength is associated with higher unemployment in the West, the cluster with above average union security across all groups, the Indebted Union Secure, reports relatively low unemployment rates. Below is a more detailed account.

Cluster grouping

Among developing nations, cluster analyses suggested the following typology (for Non-OECD cluster descriptions; see Table 5). The clusters are again arranged by the distance of their cluster centers from each other as suggested by table 6.

<table>
<thead>
<tr>
<th>Table 5: Non-OECD cluster descriptive</th>
<th>L-M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenure index</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>57</td>
</tr>
<tr>
<td>Minimum</td>
<td>-1.81</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.95</td>
</tr>
<tr>
<td>Mean</td>
<td>-0.05</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.00</td>
</tr>
<tr>
<td>Collective action index</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>57</td>
</tr>
<tr>
<td>Minimum</td>
<td>-2.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>2.05</td>
</tr>
<tr>
<td>Mean</td>
<td>-0.08</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.93</td>
</tr>
<tr>
<td>Social security index</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>57</td>
</tr>
<tr>
<td>Minimum</td>
<td>-2.42</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.21</td>
</tr>
<tr>
<td>Mean</td>
<td>-0.30</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.06</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>57</td>
</tr>
</tbody>
</table>

L Zscores of normalized indices employed for analyses.

M Zscores
Table 6: Non-OECD Final Cluster Centers

<table>
<thead>
<tr>
<th></th>
<th>Low income Full-flex</th>
<th>Indebted Union-sec</th>
<th>Low income Tenure-sec</th>
<th>NIC Flexicurity</th>
<th>Middle income Securi-flex</th>
<th>Socialist legacy Full-Sec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour-index EPL</td>
<td>-1.38</td>
<td>-.64</td>
<td>.65</td>
<td>-.36</td>
<td>-.75</td>
<td>.99</td>
</tr>
<tr>
<td>Labour-index CRL</td>
<td>-1.67</td>
<td>.29</td>
<td>-.55</td>
<td>-.93</td>
<td>.51</td>
<td>.35</td>
</tr>
<tr>
<td>Social security index</td>
<td>-1.62</td>
<td>-1.34</td>
<td>-1.59</td>
<td>.19</td>
<td>.46</td>
<td>.73</td>
</tr>
</tbody>
</table>

\( ^N \text{zscore} \)

**Low-Income Fully Flexible:** Malaysia, Jamaica, Zambia, Nigeria, Malawi, Kenya. This cluster is made up of low-income countries, except for Malaysia. They provide very little EPL for workers and no union rights or social security. This cluster has the greatest distance to the Socialist legacy full security cluster.

**Indebted Union Secure:** Sri Lanka, Zimbabwe, Madagascar, Burkina Faso, Ghana, Bolivia, Lebanon, Senegal. This cluster is more diverse in terms of the income level of the countries, spanning from Burkina Faso to Zimbabwe. However, all of the countries are either severely or highly indebted according to the World Bank. These countries provide their workers little in the way of EPL or social security but have some elemental union rights.

**Low-Income Tenure Secure:** Mali, Jordan, Indonesia, Uganda, India, Tanzania. The composition of this cluster is the inverse of the previous one regarding labor-based rights. These low-income countries tend to have more EPL legislation but lower union rights than the previous cluster.

**NIC Flexicurity:** Brazil, Pakistan, Singapore, China, Thailand, Chile, Israel, Uruguay, Mongolia and Dominican Republic. This cluster is the unequivocal winner regarding the outcomes. While scoring low on both the EPL, though not as low as some other clusters, and the Collective action index, it provides some elemental social security.

**Middle Income Securi-Flex:** South Africa, Croatia, Argentina, Romania, Colombia, Philippines, Egypt, Arab Rep., Morocco, Ecuador, Hong Kong and China. Countries in this cluster typically report a medium income and medium scores on union rights and social security provisions, while scoring below average on EPL.
Socialist Legacy Full Security: Venezuela, Kyrgyz Republic, Slovak Republic, Lithuania, Slovenia, Armenia, Bulgaria, Ukraine, Russian Federation, Latvia, Panama, Vietnam, and Tunisia. This cluster is strongly dominated by countries with a socialist past. This cluster scores highly on EPL, union rights and social security provisions. It performs well relative to the other clusters in its group.

Outcomes

The outcomes are again aligned along a flexibility-security continuum. The most flexible cluster is associated with the highest incidences of unemployment, particularly among youth, while reporting the lowest growth rates. It also combines the highest shadow economy and poverty. To the degree that a flexible labor market is argued as being endogenous to welfare outcomes, flexibility alone does not seem to be the answer to labor market efficiency and economic prosperity.

On the other side of the continuum is the Socialist Legacy Fully Secure cluster. As in the OECD sample, this cumulative three-pronged security has adverse labor market effects with relatively high unemployment and significantly higher unemployment among young males (20 to 24 years); see Table 7: Non-OECD labor market outcomes by clusters. However, it also boasts significantly more female labor market participation and lower discrimination of women on the labor market if measured in male to female unemployment rates. Regarding the macroeconomic performance such as GDP growth or social welfare indicators such as absolute poverty rates or inequality, this cluster performs very well, having a significantly lower Gini-coefficient than all other clusters (see Table 8: Non-OECD Poverty and inequality as well as tax burden outcomes by clusters).

Table 7: Non-OECD labor market outcomes by clusters

<table>
<thead>
<tr>
<th>Low income Full-Flex</th>
<th>Total unemployment $^a$</th>
<th>Youth unemployment $^a$</th>
<th>Female labor force $^a$</th>
<th>Fem./male labour force</th>
<th>Male unemployed rate (20-24) $^b$</th>
<th>Female unemployed rate (20-24) $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12.99%</td>
<td>34.70%</td>
<td>43.35%</td>
<td>0.69</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Indebted Union-Sec</td>
<td>7.52%</td>
<td>14.31%</td>
<td>41.60%</td>
<td>0.74</td>
<td>14.6</td>
<td>23.96</td>
</tr>
<tr>
<td>Low income Tenure-Sec</td>
<td>8.15%</td>
<td>18.10%</td>
<td>40.10%</td>
<td>0.67</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NIC Flexicure</td>
<td>7.73%</td>
<td>16.88%</td>
<td>38.91%</td>
<td>0.64</td>
<td>9.39</td>
<td>17.3</td>
</tr>
<tr>
<td>Middle income</td>
<td>14.12%</td>
<td>31.47%</td>
<td>36.64%</td>
<td>0.55</td>
<td>15.96</td>
<td>23.24</td>
</tr>
<tr>
<td>Socialist legacy Full-Sec.</td>
<td>12.01%</td>
<td>28.97%</td>
<td>45.05%</td>
<td>0.77</td>
<td>20.89</td>
<td>21.50</td>
</tr>
</tbody>
</table>

$^a$ Unemployment total (% of total labor force)

$^b$ Unemployment youth total (% of total labor force 15-24 y.)
Table 8: Non-OECD poverty and inequality as well as tax burden outcomes by clusters

<table>
<thead>
<tr>
<th>Cluster</th>
<th>GDP per capita growth %</th>
<th>Unofficial economy size %</th>
<th>Population below 1$/day</th>
<th>GINI index</th>
<th>Individual highest marginal tax rate %</th>
<th>Corporate highest marginal tax rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low income</td>
<td>2.71</td>
<td>41.48</td>
<td>34.70</td>
<td>0.47</td>
<td>27.60</td>
<td>31.26</td>
</tr>
<tr>
<td>Full-Flex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indebted</td>
<td>3.25</td>
<td>45.60</td>
<td>32.83</td>
<td>0.43</td>
<td>34.87</td>
<td>31.50</td>
</tr>
<tr>
<td>Union-Sec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low income</td>
<td>3.49</td>
<td>29.87</td>
<td>7.65</td>
<td>0.44</td>
<td>32.06</td>
<td>25.81</td>
</tr>
<tr>
<td>Tenure-Sec</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIC</td>
<td>4.80</td>
<td>34.05</td>
<td>25.75</td>
<td>0.37</td>
<td>31.25</td>
<td>31.43</td>
</tr>
<tr>
<td>Flexicure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle income</td>
<td>2.74</td>
<td>32.66</td>
<td>6.67</td>
<td>0.43</td>
<td>33.7</td>
<td>30.33</td>
</tr>
<tr>
<td>Securi-Flex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socialist legacy</td>
<td>4.04</td>
<td>37.63</td>
<td>3.50</td>
<td>0.36</td>
<td>32.38</td>
<td>25.30</td>
</tr>
<tr>
<td>Full-Sec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\* Annual GDP per capita growth (%), average 1996-2003

\(U\) West set to .1 interpolated and nearest neighbor 1995-2005

\(V\) Last observation carried forwards and backwards for 1995-2004

\(W\) Observation pertain to 2002

\(X\) Observation pertain to 2002

Again there seems to be, if not a golden, at least a “bronze middle”, the Flexicure. As in the OECD sample, the hallmark of this cluster is that these countries provide a basic social floor with medium-high labor protection indices. This cluster reports significantly lower total and young unemployment rates compared to all other clusters. However, regarding labor market exclusion indicators, it is also noteworthy that female labor force participation is significantly lower while the unemployment rates of young women relative to that of young men is still significantly higher. The shadow economy is also significantly below that of the Non-OECD group mean. This suggests that the low unemployment rates do not merely reflect the migration of workers from the formal to the informal economy. This
cluster also reports high GDP per capita growth rates, favorable poverty statistics and a low tax burden.

**Conclusion**

Much of the discussion on the beneficial impact of flexible labor markets has taken place within the confines of the Western OECD world. This has tended to obscure the effects of completely removing any protective barriers for workers. On a more global scale, countries with no safeguards against arbitrary, instantaneous dismissal, no collective action power or social safety net tend to be the countries that score lowest on labor market efficiency indicators and social justice indicators as well as poor macroeconomic performance. However, the countries with the most extensive labor protection regimes perform poorly on efficiency and welfare indicators. The three null hypothesis delineated above can be rejected fairly confidently, leading to the following conclusions:

1. *The most flexible labor markets in the world, the Low-Income Full-Flex, do not correlate with optimal results regarding all labor market efficiency and well-being indicators.* Countries with a completely flexible labor market, the Non-OECD Low-Income Full-Flex, having no unions, no dismissal protection and no social safety net, report high unemployment rates, the lowest growth rates, the highest absolute poverty rates, great inequality and a large shadow economy. This low score of all indicators of socio-economic performance rejects the null hypothesis that a simple linear relationship exists between flexibility (for employers) and desirable socio-economic performance. Among OECD countries, comparisons are somewhat constrained as there tends to be a floor of elemental safeguards even among the most flexible. Yet again, the countries with both the most flexible labor markets and the loosest social safety nets, the Anglo-Saxon Labor Flex are not the star performers if a broader range of comparative socio-economic indicators is employed. Whereas the Anglo-Saxon model tends to perform well regarding (un)employment statistics, inequality is high and GDP growth is, at best, average. Further confirmatory analyses can help clarify causality between these different factors.
(2) *Countries with the most extensive labor protection regimes worldwide are also not among the star performers.* The European Corporate Continental Triply Secure constitutes this cluster, as these countries have a high ranking on all three indices of labor empowerment. These European countries perform very poorly regarding labor market efficiency statistics. Whereas the high total unemployment rate or the sky-rocketing youth unemployment rate is well known, female unemployment rates also tend to be much higher than that of males suggesting grave inequalities in labor market inclusion due to ascriptive characteristics such as gender. More surprisingly than the much-quoted inferior labor market performance is that these corporatist continental countries also under-perform *vis-à-vis* the Flexicure regarding the size of the unofficial economy and the Gini index.

(3) *There is evidence for some optimal middle ground on the flexibility-rigidity axis across the world regarding all labor market and well-being indicators, the data suggest trade-offs between different desirable outcomes.* Countries with a basic form of social insurance and moderate dismissal protection fare well. Examining performance along different indicators suggests that performing well on one welfare indicator is not necessarily predictive of performing well on another. Countries with a low unemployment rate are not necessarily those with a low Gini-coefficient or consistently high growth rates. Socialist legacy full security countries are a good case in point for trade-offs, performing poorly on the unemployment indicators while doing well in terms of growth and equity.

(4) The two hypotheses yielded by the analyses are thus:

a. Countries with a basic form of social insurance and moderate dismissal protection, the Flexicure, cumulatively perform significantly better

b. However, within this middle ground of the flexibility-rigidity continuum, different protection regimes correlate dissimilarly on outcome indicators. More flexible labor markets correlate positively with labor market efficiency outcomes, such as unemployment rates, while countries with a more secure labor market perform better on societal well-being indicators, such as equity and poverty measures. The answer to
the question “the winner is?” thus depends on the indicators employed for comparison.

Much remains to be done. These clusters could be examined on their labor market and macroeconomic outcome longitudinally as any cross-sectional analysis cannot adequately address causality issues. Further studies may seek to develop a weighing system for assessing the enforcement or “accessibility” of labor protection policies. The impact of specific reforms of the European “reform cluster” could be traced in more specific case studies. The indices could be clustered in a disaggregated form; in further analyses protection mechanisms against income loss due to ill health and old age could be separated from unemployment benefits for instance. Clusters could be compared along other outcome indicators. Other multivariate procedures could be employed to confirm the results. Most importantly, how much is too much or too little according to which indicator should be examined more closely. While some of these suggestions have found their way into the appendices, the realization of confirmatory methods is beyond the scope of this paper.

Numerically and substantively this study takes the discussion beyond its current confines, and two tentative policy conclusions emerge: First, the superiority of the Anglo-Saxon cluster versus all European models could not be confirmed. Rather, a certain group of European countries outperform the Anglo-Saxon cluster but more than that, they out-perform their European neighbors on a variety of labor market outcomes as well as poverty scores and informal economy ratings. Rather than the misleading Europe-US dichotomy, these countries could provide a variety of applicable models of how to maximize workers’ rights while circumventing adverse economic outcomes.

Second, the study highlights the importance of widening the basis for comparison. As a closer look at more countries along more indicators of well-being indicates that even among the winners, who successfully combine security and flexibility, certain trade-offs between labor market efficiency and social equity seem to take place, which outcomes to maximize remains a political decision.
1 Employment protection legislation (EPL) is also referred to varyingly as employment (tenure) security or job security (ILO, 2004).

2 The models are hypothetical because there is no one US or European model that is consistent across time or continent. Werner (2002) argues that rather than being "frozen landscapes", European States exhibit innovative features with investments in education and active labor market policy. Welfare state policies differ dramatically between Greece and France. Likewise, the US model is a hypothetical construct, different US states varying in degrees of social protection mechanisms with the costal states typically being more generous and the Southern states less so. The effect of these large welfare provision disparities has been heatedly debated ever since Murray published Losing Ground in the 1980s (Murray, 1984, for a counter position see Wilson, 1987, (see also Ellwood, 1986, Holtfreter, 1989, Ehrenreich, 1989 Leibfried and Wiseman, 1995 for a review of the discussion).

3 The greatest difference between Europe and the US lie in long-term unemployment rates. However, this may be due to measurement differences. Long-term unemployment refers to the number of people with continuous periods of unemployment extending for a year or longer as a per cent of the total unemployed. Source: ILO, Key indicators of the labor market database. Critics point out that this is due to registered, and not real, unemployment. Longer unemployment compensation periods in Europe lead to more reported unemployment, as workers need to be registered as looking for work to receive benefits. While unemployment registration incentives undoubtedly influence the direct comparability of numbers, there is little doubt that the real unemployment rate in the USA is in fact considerably lower.

4 As a side-note on the issue of comparability, it is questionable if judging, e.g., the labor market of Luxembourg and the US, is not comparing apples with oranges. Also, within the US, the least generous states do not necessarily report the best labor market efficiency (Wilson, 1987).

5 Unfortunately, there is no data available globally and comparative on active labor market policies.

6 In this "contentious economics policy debate" other, less cited, factors are payroll taxes, the coordination of collective bargaining and active labor market policies (Baker et al., 2004).

7 Furthermore, other factors that have nothing to do with the labor market per se as the degree of competition among products tending to reduce unemployment rates may be important. However, these questions go beyond the scope of this paper.

8 De facto, there has been an increase in industrialized countries of casual and temporary labor, subcontracting, telework, agency labor, etc (Standing, 1999). With a shrinking public sector relative to private sector employment, security has eroded where it was strongest. Top companies plan to achieve higher turnover rates (Perrin, 2000). While there is some debate on the trend in employment protection in industrialized countries as average tenure has not decreased, an ILO report (2006) argues that average tenure is not a valid indicator of loosening employment protection and ensuing casualization as its effects are masked by ageing and employment growth.

9 These rights are enshrined in various ILO Conventions, most notably Convention No. 87 on Freedom of Association and Protection of the Right to Organise, 1948 and Convention No. 98 on the Right to Organise and Collective Bargaining, 1949.

10 One critical interactive factor concerning the effects unions have if this central bargaining on the side of the employees is met with employer coordination. Nickell (1997:68) argues that while "unions are bad for jobs", employer coordination negates this effect. While conceding that the wages in the US are more flexible, Nickell (1997:59) argues for a more detailed look at the relationship between unemployment increase and wage decrease as wages are known to be sticky downwards.

11 Union membership has declined dramatically in the US since the 1980s (Wallace & Rothschild, 1988:8), now hovering around 10 percent due to industry automation, rationalization and businesses moving to States with a "favourable business climate", a strong feature of this climate being the absence of unions (Braun, 1991). In other parts of the world too union memberships have declined as unions were targeted by states. A predominant concern for many Asian countries is that independent unions could impede economic growth. Grave violations and open confrontation against unions have declined, though not subsided. Bangladesh, Cambodia, China, India, South Korea and the Philippines had particularly violent episodes in 2005 (ICFTU, 2006). Dictatorships often target unions not only for economic reasons but for political reasons as well.xi In much of the Middle East, particularly the Gulf States, unions are prohibited.xi In Africa, governments are often involved in curbing union rights by restrictions in laws on organizing, collective bargaining and strike action, and repression in practice (ICFTU, 2006). In Latin America, autocratic dictatorships have contributed to current union weakness (Charnovitz, 1994). Union rights are especially shaky in Export Processing Zones (ICFTU, 1999). In general, unions are firm or sector-specific and lack real representative power (Heckman and Pagès, 2004:11).

12 Ideally such an index would include protection mechanisms that are not linked to any form of employment but are based on citizenship or residency, e.g. universal pensions or "welfare" such as TANF in the USA or "Sozialhilfe" in Germany or the "universal pensions" in Namibia. The available data on this in developing countries, if indeed there are many of these schemes, is scarce and not representative. Data on old age benefits, disability and death benefits and unemployment benefits are available for 85 countries, including many developing countries.

13 Also limiting the focus to unemployment benefits would constrain the already difficult comparison between developing and developed countries as many developed countries do not have this benefit available to workers.

14 A second effect of benefits not operationalized here is indirect: the increase in labor costs and taxes to finance social security payments has adverse effects. Siebert (1997) argues that increasing social insurance contributions has increased the dead-weight loss between wage cost for the employer and net wage received by employee thus increasing unemployment. Ochel (1998) also sees the employment ancillary wage costs as responsible for the different employment
elasticiities in Europe and the US. Nickell (1997), on the other hand, argues that the general tax burden is the decisive number not the taxes on wages. So if the tax on wages would be decreased and VAT increased, this would have no positive effect on employment figures (OECD, 1994 in Nickell, 1997). Following the OECD (1994) study, the general weight of the tax burden is examined as an outcome in this paper but not included in the legal index as the weight of the tax burden relative to other legal requirements was not clear.

15 How strong these effects are depends on the difference between the wage and the unemployment compensation or sick benefits or pension replacement rates. This varies for population groups by age and civil status; it is lower for married couples with children in Germany for instance, (Ochel, 1998).

16 For instance, according to the People’s Security Surveys in Gujarat (India), 25 percent of rural households did not have access to public health care facilities in contrast to 7 percent of urban households (Unni and Rani, 2002). This emerging multi-tier system exposes a majority of the population to income insecurity due to a fear of impending health care costs (ILO, 2006).

17 For example, in the US, unemployment compensation typically lies around 55 percent of previous income in most states. This is substantially lower than in Europe. Due to a number of restrictions, only 30 to 40 per cent of unemployed receive these benefits (Ochel, 1998; Hunt ,1998). These differences are cited as evidence that high unemployment benefits are a chief reason for high unemployment and low job growth in the Europe.

18 Heintz (2001) and Heintz et al. (2001) show that some explanations also link women’s emancipatory possibilities more closely to the extent to which social provisions by the State decommodify women’s labor and reduce women’s dependency on the male bread-winner (Lewis, 1997; Orloff, 1993; see Sainsbury, 1994 for an overview).

19 The latter are included because of the “home maker” argument: women exhibit low labor force participation rates because they prefer to stay at home. Although “one might question the extent to which leaving a career under discriminatory duress is a decision” (Alessio and Andrzejewski, 2000:312), the home-maker-preference-argument cannot simply, a priori, be discounted. However, if women exhibit disproportionately high unemployment rates (relative to their male counterparts), this could indeed serve as an indicator for discrimination. The status of unemployment signifies that a person is seeking work but attaining none.

20 The two Achilles heels in any analysis assessing the impact of regulations on outcome indicators of this kind are how to gauge the “uptake” or “enforcement” of social protection provisions and which lag time to employ. The uptake of unemployment insurance, for instance, varies dramatically. A recent International Labour Organization report (2006) assesses that in much of the world even old-style laborist social security schemes are non-operational, particularly in so-called “transition” economies’ where formal commitment to provide State benefits to workers is not honored. This is matched in the developing world, e.g. many African governments commit to some universal provision of social protection. In Tanzania, for instance, the right to social security is set out in the 1977 constitution but has not been met due to a lack of resources (Tungaraza and Mapunda, 2000) leaving only about 6 per cent of the total population covered by “formal social security schemes” (Steinwachs, 2002). The benefits provided are too low to avert poverty (Wangwe and Tibandebage, 1999).

Indicators on effectiveness of social security schemes could not be included here because of lack of data (ILO, 2006). Thus, countries are rated according to the de jure provisions regarding employment protection and collective action as well as the number of social risks covered by national legislation and the eligibility conditions for benefits. Cross-examining the indicators on laws does not solve the enforcement issue nor are they strictly comparable because different variables and measuring techniques used. However, a perfunctory ranking of countries suggests that there is considerable overlap with indicators used by a 2006 ILO report and that many countries fail to provide basic security. An ILO report found that only 17 of the 102 countries meet all those criteria satisfactorily while 34 countries do not meet any of the criteria. Although there are some burgeoning attempts to measure enforcement more precisely (see Abu Sharkh 2006), there are no valid and reliable indicators permitting to weigh legislative variables according to their meaningfulness regarding uptake.

The second problem this paper shares with the OECD study, the general weight of the tax burden is examined as an outcome in this paper but not included in the legal index as the weight of the tax burden relative to other legal requirements was not clear.

Results of all tests available from the author upon request.

21 Note, the running means option was not employed to avoid issues related to case order.

22 Russia’s pensions are a much-cited example of divergence between de jure provisions and de facto uptake.

23 A “dendrogram” is “a visual representation of the steps in a hierarchical clustering solution indicating the values of the distance coefficients at each step”.

24 Many more long-term and short-term outcome variables are of interest: Less apparent effects of looser EPL such as the deskilling of the work force are not included. If employers are less inclined to train employees on short-term contracts and if
less stringent EPL leads to more employees with short term contracts, the cumulative effect may be that employees receive less training overall with possibly adverse effects on productivity and, ultimately, wages.
Bibliography


Figures

Figure 1: Comparing performance on GDP per capita growth

![GDP per capita growth](chart1)

Figure 2: Comparing performance on unemployment

![Unemployment](chart2)