Labor Market Deregulation and Industrial Conflict in New Democracies: A Cross-National Analysis

José Alemán

Fordham University

This article studies the effect of recent labor market reforms on industrial relations in new democracies (1994–2003). The literature on labor politics posits two channels through which labor market deregulation may relate to industrial conflict. Wage deregulation may lower wage costs, increasing industrial conflict. Employment deregulation, however, can reduce the ability of workers to act collectively. Using methods uniquely suited for panel data analysis, the study reveals a number of important findings. First, whereas labor quiescence went hand in hand with relatively modest increases in earnings in a number of established democracies, modest wage increases are generally linked with more labor militancy in new democracies. Higher wage and employment regulation minimize wage reductions, lowering the incidence of strikes. Finally, wage regulation has the largest effect on aggregate wages and consequently on the incidence of strikes and lockouts.

While democratization expands popular participation, it also increases pressures for redistribution, particularly from the working class (Nelson, 1991; Rodrik, 1999). One way governments in new democracies¹ have addressed this challenge is through the creation of institutions of national social dialogue. Over the last two decades, participation by representatives of trade union and employer associations in economic and social policy-making (Ishikawa, 2003, p. 3) has featured prominently in processes of democratic transition and consolidation.

In many new democracies, social dialogue has assumed special importance, both in terms of its ability to maintain social cohesion and of the economic reforms which it has made possible (ILO, 1997). Tripartite institutions have been instrumental in the reform of labor market policies and institutions in Latin America and Southern Europe (Cook, 2007, p. 11).² In all Central and Eastern European democracies, tripartite committees have become the mechanism through which wage increases are regulated and minimum wages set (Borisov and Clarke, 2006; ILO, 1997, pp. 151–3). Examples of African and Asian countries where social dialogue has played a prominent role include South Africa, the Republic of Korea and the Philippines (Ishikawa, 2003).

The literature on the prerequisites of successful national dialogue, however, raises two important questions regarding the ability of these institutions to establish deep roots in new democracies. Corporatist institutions work well when the



national/sectoral level prevails over plant or firm-level bargaining. This, however, is far from the reality in many new democracies, where decentralized bargaining is commonplace.

A second question has to do with the labor market regulations that are supposed to complement tripartite institutional arrangements. Democratization has increased the regulatory profile of governments in some countries and in some areas of labor market and social policy reform (ILO, 2004; Murillo, 2005). Nevertheless, many countries with previously high levels of labor market regulation have witnessed reduced state involvement (Deyo and Agartan, 2003), greater pluralism in labor relations (Buchanan and Nicholls, 2003) and reduced employer obligations towards unions (Cook, 1998; 2007; ILO, 2004).

This study thus endeavors to establish an association between labor market deregulation and industrial relations in new democracies. Labor market deregulation refers to processes that scale down the role of some instruments of economic regulation such as the law or state arbitration in favor of more flexible employment and collective bargaining relations (Cook, 2007, pp. 41–2; Esping-Andersen and Regini, 2000, p. 21). These reforms can simultaneously increase workers' grievances and decrease the ability of unions to work cooperatively with governments and employers to respond effectively to these demands.

Since labor market deregulation operates on multiple dimensions, its effects on industrial relations systems are likely to be complicated. Much depends on whether these reforms change the bargaining power of employers and workers and how labor market institutions mediate these changes (Traxler, 1995). Even if strike activity rose as a result of more wage deregulation, this does not automatically imply concomitant rises in other forms of labor militancy. Prevalent accounts of labor collective action, however, claim that Eastern Europe and Latin America witnessed net declines in labor protest following the transition to democracy (Greskovits, 1998; Kurtz, 2004, pp. 287–99). This study demonstrates, on the contrary, that labor market institutions have increased strike activity and the number of workers involved in strikes in a representative sample of new democracies.

The contributions of this article are then threefold. First, existing studies are not representative of a large number of countries – those where reforms have been introduced by conservative or center-right cabinets. Conversely, this article represents the first large-N study of the relationship between labor market institutions and industrial relations conducted on a representative sample of new democracies. Secondly, the majority of studies neglect political institutions and institutional explanations of labor collective action (Etchemendy, 2004). This raises questions of selection and omitted variable bias in the literature that have not been satisfactorily addressed. Finally, the findings presented here reveal a picture of labor politics in new democracies profoundly at odds with the experience of many established democracies. Using methods uniquely suited for panel

data analysis, this article demonstrates that whereas labor quiescence went hand in hand with relatively modest increases in earnings in a number of established democracies, modest wage increases are generally linked with more industrial conflict in new democracies.

The remainder of the article is organized as follows: the first and second sections consider the uneven experience of new democracies with corporatist institutions on the one hand and labor market regulations on the other. The third section elaborates the logic of the argument that industrial conflict is a function of the extent to which the government regulates the wage-setting process. The fourth section describes the data used in the analysis, which is divided into two parts: an analysis of wage costs in new democracies, and a direct test of the effects of labor market institutions on the incidence of strike activity. The final section concludes with some important policy implications.

The Institutional Account: Corporatist Policy-Making

Much received wisdom on the relationship between labor market institutions and industrial relations is derived from the European experience with interest representation systems. For scholars of advanced industrialized democracies, corporatism produces more consensual outcomes than its alternative, pluralism (Schmitter, 1981). Phillippe Schmitter presented evidence from fifteen Western democracies showing a strong negative correlation between corporatist institutions and civil unrest. Corporatist polities are more successful in containing political discontent, he claimed, because of their ability to create and enforce a 'social contract' between contending interests (capital and labor).³

The first studies postulated a linear relationship between labor market institutions and industrial conflict. By granting firms and workers monopoly of representation, corporatist institutions loosen market constraints on their behavior (Schmitter, 1981, p. 294). As unions increase in size and power, their preferences change, making the struggle for marginal wage increases no longer rational (Olson, 1982). Similarly, as the size of the labor supply under union control increases, firms' willingness to engage in conflict with workers falls (Western, 1997, p. 3).

Others claimed that a curvilinear function best captured the relationship between bargaining centralization and wage militancy (Calmfors and Driffill, 1988). George Tsebelis and Peter Lange (1995) hypothesized that labor markets in which unions are too well organized to be a mere price taker in the market but too weakly organized to produce a comprehensive social pact produce a prisoner's dilemma in which rational action by individual unions produces high levels of industrial conflict. As a result, countries with strong or weak labor have low strike rates, while countries with intermediate levels of labor strength have high levels of strikes. David Soskice (1990, p. 40) concluded, however, that a linear specification best captured the relationship between wage bargaining and unemployment in a number of Organization for Economic Cooperation and Development (OECD) countries.

While the literature has not provided conclusive evidence of the precise relationship between bargaining centralization and wage militancy, most advanced industrialized democracies fall into two distinct institutional clusters: 'corporatist' or 'pluralist' (Siaroff, 1999, p. 176). Macroeconomic evidence from these countries highly favors the first cluster, at least through the 1980s. Michael Nollert found that corporatist concertation improved macroeconomic performance and reduced income inequality, lowering political protest (Nollert, 1995). All together, social dialogue has been associated with low wage flexibility (Honeybone, 1997, p. 493), low unemployment (Cameron, 1984), high price stability (Crouch, 1985), increased welfare spending (Crepaz, 1996) and reduced inequality and poverty (Brady, 2003).

Many Third Wave democracies have legacies that range from complete subordination of unions (Eastern Europe), to state patronage (Latin America). Another variant of corporatist control, East Asian 'corporatism without labor', proscribed independent unionism in return for employment security and rising real wages for workers. By the mid-1990s, most new democracies had established national/ sectoral-level bargaining institutions, in addition to company-level bargaining.⁴ A major trend noted in the literature, however, is a decentralization of collective bargaining to the firm level (ILO, 1997). In eighteen of the twenty-nine new democracies profiled, the dominant level of bargaining from 1987 to 1998 was the company or plant.

In Central and Eastern Europe, wage bargaining takes place for the most part at the enterprise level (ILO, 1997, pp. 148–9). Collective bargaining in many parts of Latin America is limited mainly to employees in large companies (ILO, 1997, pp. 158–66). Finally, it still plays a relatively minor role in Asia (ILO, 1997, pp. 165–9). Indeed, while ten countries moved towards more national/sectoral-level collective bargaining, company-level bargaining increased in twenty-three countries.

Labor Market Regulation: The Partisan Account

Partisan accounts suggest that countries governed by socialist, social-democratic and more generally leftist parties typically feature extensive labor market regulations (Boix, 1997; 1998; 2000; Botero *et al.*, 2004; Esping-Andersen, 1990). Conservative parties, on the other hand, favor allowing the market to determine the most efficient equilibrium between labor supply and demand (Hicks, 1999). Partisan accounts appeal to scholars of new democracies because government involvement in the economy was until recently the norm in the developing world.⁵

Employment regulations typically increase the union wage premium within firms (or industries, if bargaining takes place at the industry level). Since unions

4

typically demand that wages be paid according to job category (rather than productivity), the effect of employment regulation is to raise costs for employers. In recent years, however, changes in labor contracts and the diversification of the types of contract have been the main objectives of labor reforms in many emerging democracies.⁶

Firing practices have been eased by increasing the number of allowances made for layoffs, allowing firms to reduce contributions to social security and other benefits (Tokman, 2002). Fixed-term and other forms of temporary work have become more common (ILO, 2004, p. 140). These contracts affect unions negatively because they remove part of the active labor force from their membership rolls (Etchemendy, 2004, p. 277). As a result, employment protection is now frequently included by unions in collective bargaining agendas (ILO, 1997).

Another important effect of government partisanship is on macroeconomic performance. Some have argued that ties between left parties and organized labor were responsible for the comparatively better macroeconomic performance of social democracy. Between 1965 and 1982, advanced industrialized democracies in which leftist parties most frequently and most extensively controlled government tended to experience labor quiescence and acceptance of relatively modest increases in earnings. Nations dominated by non-leftist parties, on the other hand, were prone to experience labor militancy and large increases in earnings despite relatively high levels of unemployment (Cameron, 1984, p. 161). Loosening ties between left parties and organized labor, however, has made the conclusion of pacts between unions and employers more difficult in some emerging democracies (ILO, 1997, p. 47).⁷

To summarize, the corporatist literature emphasizes policy effectiveness in terms of macroeconomic performance. This implies specific patterns of behavior: from the government, an 'active state involved at least moderately in the economy' (Siaroff, 1999, p. 178) which facilitates bargained and/or voluntary incomes policies; from organized interest groups, a long-term outlook which entails cooperation and coalescence and consequently low levels of strike activity. These arguments suggest that labor market deregulation, especially if accompanied by a weakening of alliances between left parties and organized labor, may decrease the ability of workers, employers and governments to reach mutually satisfactory compromises.

Wage Moderation and Industrial Conflict in New Democracies

In established democracies, government intervention in wage matters is usually aimed at encouraging or mandating wage restraint (Kenworthy, 2001, p. 70). Under a favorable political and institutional environment, workers may follow the path of moderation even if they can maximize collectively negotiated wage increases. Likewise, governments and employers in new democracies are likely to emphasize wage moderation and macroeconomic stability. Favorable institutional arrangements for cross-class cooperation, however, are absent in many new democracies (Rudra, 2002, p. 415).

Collective rights and the enforcement of a minimum wage law cannot by themselves guarantee workers in new democracies a level playing field with national and international capital. Union wage premiums, for example, are small in some countries (Rama, 2003, p. 172). Labor in Less Developed Countries (LDCs), moreover, faces a collective action problem that is usually manifested in large pools of low-skilled and surplus workers (Rudra, 2002). In this situation, many workers may not even take part in collective bargaining. Employers on the other hand are poorly organized and fundamentally heterogeneous (ILO, 1997, p. 145).

Given the institutional asymmetries just described, lower government involvement in collective bargaining is likely to make wage pacts more difficult to negotiate and enforce. Governments arbitrate the competing demands of employers and unions (as well as the demands of competing factions within these groups).⁸ They can lend their prestige and credibility to employer proposals and commitments (Blake, 1994, p. 388). Consequently, less government involvement in the collective bargaining process is likely to make cross-class cooperation on wage-related matters more difficult.

Secondly, national governments can commit themselves to some action – for example, imposition of a cost-of-living adjustment or a national wage schedule – in exchange for cooperation from the social partners (Kenworthy, 2001, p. 70). If governments do not follow a pragmatic strategy to facilitate negotiations between trade unions and employers, however, their macroeconomic policy may not be as effective. This is one reason many governments in new democracies have resorted to social dialogue in the last two decades.

The institutional account of class cooperation offers, then, testable hypotheses of the relationship between labor market institutions, wage costs and industrial relations. Compared to advanced industrialized democracies, very little is known about how labor market institutions operate in most new democracies. The present discussion suggests that the less regulated the wage-setting process is, the more likely are pluralism and its attendant outcomes.

Data Sources

The International Labour Organization defines social dialogue broadly, reflecting the wide range of processes and practices found in different countries. This highlights what is perhaps the fundamental ambiguity about indicators of corporatism. In one view the central component is formal centralization of interest groups and decision making. In the other it is a policy-making process in which informal practices are often as important as formal institutions (Trebilcock, 1994, p. 4). If the outcome to be explained is wage restraint (or lack thereof), however, government involvement in wage setting is theoretically preferable to indicators of bargaining centralization or coordination (Kenworthy, 2001, p. 70). The indicator used here then is the 'Extent of Wage Regulation' derived from the Economist Intelligence Unit (EIU) Market Indicators and Forecasts. The measure reflects how effectively the government determines the prevailing wage rate. Accordingly, 1 denotes a situation in which governments set the wage rate and 5 its opposite, when wages are determined exclusively by supply and demand. A higher level of government involvement, by making cross-class cooperation possible, should then enable wage increases above prevailing market rates.

One way to illustrate this is by looking at cross-national differences in wage costs. The only new democracy with a wage regulation score of 2 for more than two consecutive years is South Africa. This score is indicative of comparatively higher levels of government involvement in the collective bargaining process.⁹ As a result, the average monthly wage for an unskilled production worker in 2002 was US\$240 a month, 45 per cent higher than in Brazil, a country with a wage regulation score of 4. For the same year, the average monthly wage for a manager was US\$1,850, twice as high as in Poland (which has a wage regulation score of 3) and three times as high as in Brazil (US\$450).¹⁰

While far from ideal, the 'Extent of Wage Regulation' indicator places concertation and deregulation at opposite ends of a regulatory continuum, assuring conceptual validity.¹¹ This indicator, moreover, is more appropriate than those that place more weight on formal features of the wage-setting process such as the dominant level of bargaining. While the strategy of the government may affect the dominant level of bargaining, collective bargaining does not cover a large number of workers in many new democracies. As a result, the level of bargaining centralization is not necessarily indicative of broad macroeconomic effects.

The indicator used for employment regulation, 'Restrictiveness of Labor Laws', reflects the regulatory environment for hiring and firing workers. It is also derived from the EIU and coded on a 1-to-5 ordinal scale, where 5 denotes an absence of protection from dismissal and 1 a situation in which it is very difficult for employers to lay off workers or hire new ones. A measure that included information on the regulation of temporary employment would obviously be preferable. Several data sets with detailed indexes of employment regulations and their associated costs currently exist (Botero *et al.*, 2004; OECD, 2004, p. 117; Heckman and Pagés-Serra, 2004). None of them, however, provide yearly information, making them inappropriate for pooled cross-sectional time series analysis.¹²

Since the EIU indicators are available from 1994, the analysis conducted here begins in that year. In seventeen of the twenty countries selected, the national minimum wage rates are set by the government or a tripartite body (Eyraud and Saget, 2005, pp. 7–8).¹³ They thus represent an excellent laboratory for the study

of the effect of labor market deregulation on industrial relations. While the sample of countries is fairly heterogeneous, the study controls for factors that are likely to differentiate countries systematically such as the level of economic development or durability as a democratic regime. Even the Southern European countries that launched the Third Wave of democratization – Portugal, Spain and Greece – illustrate the potential for conflict over labor and social policy reforms (Rhodes, 2001; Royo, 2002; Zambarloukou, 2006).

Key to determining the causal effect of government intervention on real wages is the degree of wage rigidity in the economy. Stagnation in the wage profile would reduce variation on the dependent variable, making it difficult to isolate the causal effect of government involvement. A key feature of the labor market in many developing countries, however, is the absence of real wage rigidities. Real wages in the developing world, particularly those in Latin America and Asia, tend to be far more flexible than is generally assumed (Freeman, 1992, p. 126). Labor market regulations, moreover, have not been associated with more wage rigidity even in those countries in which they are quite protective (Agénor, 1996, p. 290).

Figure 1 plots the Extent of Wage Regulation and Restrictiveness of Labor Laws scores for all the countries used in the analysis. To the extent that there are changes in wage regulation, they tend to be in the direction of more deregulation. Employment regulation exhibits more variation across time. No country, however, exhibits the minimum or maximum value on either variable.

Longitudinal measures of unionization rates or other indicators of collective voice for emerging democracies do not exist. Unionization rates in particular tend to exaggerate labor's independent political strength in many new democracies (Rudra, 2002, p. 425). Consequently, I rely on Nita Rudra's potential labor power (PLP) indicator. PLP is calculated as the ratio of the numbers employed in skill-intensive manufacturing industries relative to numbers employed in low-skill manufacturing industries divided by surplus laborers in the economy.

This measure of marketplace bargaining power is inspired by Gøsta Esping-Andersen's (1990) observation that coalitions between working-class and whitecollar workers have historically proved decisive in the politics of redistribution in industrialized democracies. The political mechanism behind this can be briefly sketched out. Lower levels of surplus labor reduce the asymmetry between the organizational power of wage earners and those whose primary source of income is capital. Moreover, because low-skilled workers are notoriously difficult to organize, larger unions generally include both white-and blue-collar workers. Higher ratios of skilled workers reduce returns to skill (Carbonaro, 2006, p. 1821), making it possible for the different sectors of the labor movement to speak with one voice.

A way to check the appropriateness of Rudra's PLP is to compare it to unionization rates for 1997, a year for which 26 emerging democracy observations are available (Botero *et al.*, 2004). The correlation coefficient between these two



Figure 1: Extent of Wage and Employment Regulation by Country, 1994–2003

© 2008 The Author, Journal compilation © 2008 Political Studies Association POLITICAL STUDIES: 2008

variables is 0.44, indicating a moderate degree of association. The following discussion summarizes theoretical expectations regarding the independent and control variables used in the study (see Appendix for sources and definitions).

Executive Partisanship

The partisanship of the chief executive, which refers to the prime minister or the president, captures the claim that left governing institutions reduce strike activity while conservative governments amplify it.¹⁴ Left governments result in labor moderation through their regulation of the wage-setting mechanism and their ties to labor groups. The spread of labor market flexibility, however, raises the possibility that left parties are no longer unambiguous champions of labor interests. To facilitate the empirical testing of partisan effects, only country-years featuring strictly partisan governments are included in the analysis. The partisanship of the chief executive is coded categorically as -1 for right, 0 for center and 1 for left parties.¹⁵

Polarization

Polarization is a measure of the ideological distance between the executive and the legislature. In countries where the chief executive and his or her party have ties to organized labor but the president's party does not control the legislature, labor market reforms have not enjoyed broad support.¹⁶ In addition, neo-corporatist concertation has proved unsuccessful if labor-based parties constitute the bulk of the parliamentary opposition.¹⁷ In these situations, moderation on the part of the labor movement is not easily forthcoming. I expect the probability of labor militancy then to increase with the degree of executive–legislative polarization, which varies from a low of 0 to a high of 4 (Keefer and Stasavage, 2003).

Potential Labor Power

PLP is a good proxy of labor's ability to coordinate its behavior and cooperate with employers and the government. PLP increases as the number of low-skilled workers decreases relative to skilled workers, and as surplus labor declines (Rudra, 2002, p. 426). Consequently, a higher PLP is expected to result in lower wage costs and a lower volume of strikes. Since Rudra's indicator is not available after 1997, I calculated PLP scores for all the countries and years covered in the analysis.¹⁸ Because of the large number of missing observations, 50 per cent were linearly interpolated using PLP's component variables. The resulting PLP measure was then checked against Rudra's PLP indicator for those years and countries available, yielding a high correlation.

Wage Deregulation

This variable, originally called 'Extent of Wage Regulation' (see above), was renamed to capture more accurately the reality that as its value increases, governments are progressively less involved and affect a smaller share of the economy. At 5 there are no wage controls or enforced minimum wages; the latter are determined by market forces. A situation in which the government exerts some controls, including a strict minimum wage law, is marked by 3. At 1, there are extensive wage controls and government influence is extensive. Higher levels of wage deregulation should be associated with decreases in wage costs and thus more labor militancy.

Employment Deregulation

I have also chosen to rename this variable to capture more accurately the idea that as its value increases, governments and unions have less say in how employers utilize their workforce. At 5 is a situation in which there are no controls on hiring and firing workers and 1 is the opposite. Since employment deregulation increases the reserve labor pool, higher levels should be associated with decreases in wage costs and less participation in strikes.

Inflation, Unemployment and GDP Growth

Strikes are said to be less frequent in conditions of economic downturn and high unemployment (Korpi, 1974, p. 1577). A tight labor market, on the other hand, improves the status of unions as price setters, pushing up costs for employers. Inflation in particular reduces the size of the formal economy as firms delay their tax payments (Rodrik, 1998, pp. 1008–9). This causes a great deal of income to go unreported and the government's tax base to erode. Consequently, inflation and unemployment should dampen wage costs and labor militancy, while gross domestic product (GDP) growth should increase both.

Foreign Direct Investment (FDI)

Many Third Wave democracies depend crucially on trade and investment links with the outside. Consequently, they feature social pacts that combine wage restraint in exchange for some welfare programs and economic policies designed to control inflation and encourage investment (Przeworski, 1992). Foreign direct investment, however, appears to increase the wage premium of skilled workers (Rama, 2003, p. 164). Consequently, I expect FDI to be associated with higher increases in wage costs and a lower incidence of strikes.

Polity Durability

The longer a country has been democratic, the longer employer and worker organizations have had to learn the habits of institutionalized cooperation (Bresser Pereira *et al.*, 1993). Consequently, the earlier the transition to democracy, the lower I expect increases in wage costs to be and the lower the incidence of strikes. To be included in the analysis, a country had to have an overall Polity

score equal to or greater than 6 throughout the period of analysis and have begun its transition to democracy in or after 1974. Observations belonging to countries that reverted to authoritarianism or partial democracy were not included.¹⁹

Labor Productivity

The underlying level of wages is primarily determined by the productivity of the workforce (Rodrik, 1999). Since labor productivity tends to be higher when the level of economic development is higher, I expect the former to be negatively associated with increases in wage costs. Labor productivity is calculated as GDP per person employed.

Labor Market Institutions and Wage Costs: Preliminary Evidence

To illustrate the mechanisms linking labor market deregulation to industrial conflict, I first analyze trends in wage costs (overall unit labor costs). This preliminary analysis illustrates then how changes in wage costs can be attributed to differences in levels of labor market regulation. The second part of the analysis demonstrates how changes in labor market regulation give rise to changes in levels of industrial conflict.

Lower levels of labor market regulation, the preliminary analysis shows, lower wage costs in new democracies. Since the dependent variable in this first analysis is defined as the percentage change in the cost of producing one unit of output over the previous year with respect to the average monthly wage (see Appendix), we can be confident that the mechanism linking labor market deregulation to wage costs is also responsible for changes in the level of industrial conflict.

For panel data, the most intuitive modeling approach is to assume the presence of unit-specific sources of heterogeneity in the data. Two estimators, fixed effects and random effects, result in different parameterizations for the unit-level effects. Fixed effects is the best linear unbiased estimator in the presence of correlation between the unit indicators and explanatory variables (Hsiao, 2003, p. 35), a fairly common situation in most work in comparative political economy.²⁰ Fixed effects, however, cannot precisely estimate time-invariant or rarely changing explanatory variables because these variables are highly or perfectly correlated with the unit-level effect (Wooldridge, 2002).

Similarly, to the extent that fixed effects eliminates the deviation of the variable's mean of one unit from the variable's mean of the base unit, it provides estimates of *changes* in the levels of the independent variables, not estimates of level differences (Plümper and Troeger, 2005, pp. 332–3). For example, a fixed-effects estimate of the variable wage deregulation would treat a change from a high level of government involvement to a moderate level as being equivalent to a change from a moderate to a low level (provided the scale of the change is the same in

both cases). This is clearly not satisfactory for research questions involving cross-national differences in levels of particular institutional attributes.²¹

Until recently, scholars in comparative political economy had few readily available alternatives.²² A recent alternative, dubbed fixed-effects vector decomposition, gives reliable finite sample estimates for both time-varying and time-invariant variables correlated with the unit effects (Plümper and Troeger, 2005, p. 7). The procedure: (1) estimates the unit fixed effects excluding the time-invariant right-hand side variables; (2) regresses the fixed-effects vector on the time-invariant explanatory variables of the original model (by OLS); and (3) estimates a pooled OLS model including all variables and the unexplained part of the fixed-effects vector. The model estimated is of the form

$$\gamma_{it} = \alpha + \beta_k \sum_{k=1}^{K} x_{it} + \gamma_m \sum_{m=1}^{M} z_{mi} + \delta \hat{\eta}_i + \varepsilon_{it}$$

where the *k x*-variables are time-varying and the *m z*-variables are assumed to be time-invariant. η_i is the unexplained part of the unit effect (μ_i), which by construction is no longer correlated with the vector of *z*'s, and ε_{it} is the idd error term.²³ This procedure gives unbiased estimates of the time-varying variables, but biased estimates of the time-invariant variables unless the time-invariant variables are uncorrelated with the unit-specific effects. In small samples, however, the most consistent estimator may not necessarily give the best parameter estimates.

Monte Carlo simulations show that when juxtaposed to competing estimators, fixed-effects vector decomposition outperforms its competitors (Plümper and Troeger, 2005, p. 27). The Hausman-Taylor procedure cannot distinguish between exogenous and endogenous regressors, while pooled OLS and random-effects models fail to give unbiased estimates for correlated time-varying variables. Because the vector decomposition procedure accounts for the potential multi-collinearity between the time-varying and the time-invariant variables, the exogeneity of time-varying explanatory variables is not required.²⁴

Compared to this procedure, pure fixed effects is competitive if the within variance is large relative to the between variance (Plümper and Troeger, 2005, pp. 32–4). This is not likely to be the case with the data used in this study, in particular the variables wage and employment deregulation plotted in Figure 1. The larger the between to within-variance ratio for a particular variable, the more appropriate are estimates by the fixed-effects vector decomposition model.

To determine whether fixed effects or fixed-effects vector decomposition is more appropriate, I calculated the ratio of between to within variance for all explanatory variables. Following Thomas Plümper and Vera E. Troeger's criteria, I determined that employment deregulation, wage deregulation, polity durability and labor productivity should be treated as rarely changing variables. It is apparent from Table 1 that with ratios of 1.77, 1.94, 1.86 and 4.05, respectively, their

Variable		Mean	Standard deviation	Between/within standard deviation
Executive partisanship	Overall	0.170	0.908	
	Between		0.696	1.140
	Within		0.611	
Polarization	Overall	1.994	0.907	
	Between		0.743	1.363
	Within		0.545	
Potential labor power	Overall	5.893	8.023	
	Between		6.535	1.342
	Within		4.868	
Wage deregulation	Overall	3.254	0.583	
	Between		0.514	1.775
	Within		0.290	
Employment deregulation	Overall	2.878	0.700	
	Between		0.633	1.946
	Within		0.325	
Consumer price index	Overall	89.102	34.602	
	Between		8.785	0.262
	Within		33.521	
GDP growth	Overall	2.943	4.171	
	Between		1.571	0.405
	Within		3.879	
Unemployment	Overall	7.683	5.829	
	Between		3.944	0.902
	Within		4.373	
Foreign direct investment	Overall	2.908	2.626	
	Between		1.803	0.926
	Within		1.947	
Polity durability	Overall	10.947	6.823	
	Between		6.110	1.861
	Within		3.283	
Labor productivity	Overall	24,517.540	12,831.770	
-	Between		12,525.040	4.045
	Within		3,096.545	

Table 1: Summary Statistics of Main Independent Variables

between to within standard deviations were larger than those of other variables and greater than 1.5, the number considered safe when correlations with the unit-level effect are less than or equal to 3.0.

To facilitate comparison, I report both sets of estimates using indicator variables for the three categories of executive partisanship (see Table 2).²⁵ In both cases, I use a robust cluster estimator for the covariance matrix.²⁶ The coefficient of

Independent variables	Fixed effects	Fixed-effects vector decomposition
Conservative government	-1.452	-1.452
0	(2.916)	(8.031)
Left government	-6.620	-6.620
-	(4.487)	(8.431)
Polarization	-0.582	-0.582
	(2.353)	(1.690)
Potential labor power	-0.339	-0.339
·	(0.129)**	(0.174)*
Wage deregulation	-14.478	-11.038
	(9.322)	(0.033)***
Employment deregulation	-9.306	-2.962
	(6.489)	(0.279)***
Consumer price index	-0.287	-0.287
	(0.082)***	(0.273)
Growth in GDP	-0.359	-0.359
	(0.324)	(0.529)
Unemployment	-0.453	-0.453
	(0.293)	(2.168)
Foreign direct investment	0.574	0.574
-	(0.393)	(1.530)
Polity durability	1.479	1.023
	(1.190)	(0.180)***
Labor productivity	-0.001	-0.001
	(0.001)	(0.000)***
Residuals		1.000
		(0.055)***
Constant	131.681	99.822
	(63.357)*	(9.400)***
Observations	135	135
Number of countries	19	19
R ²	0.83	0.83

Table 2: Regression of Overall Unit Labor Costs in New Democracies, 1994–2003

Note: Robust standard errors in parentheses. **p* < 0.05; ***p* < 0.01; ****p* < 0.001.

codetermination (\mathbb{R}^2), which is 0.83 for both models, indicates that a great deal of variation in wage costs is accounted for. The large and negative coefficient for the variable wage deregulation in both models indicates that wage regulation is the single largest contributor to changes in overall unit labor costs. Decreasing government regulation of the wage-setting process by one unit lowers overall unit labor costs by approximately 11 per cent in a given year.

The fixed-effects vector decomposition estimates, however, reveal several advantages over pure fixed effects. Both wage and employment deregulation attain the highest level of statistical significance (p < 0.001). The coefficient for employment deregulation is now smaller, indicating that higher levels of employment regulation raise wage costs slightly. Finally, the variables polity durability and labor productivity have attained high statistical significance. Labor productivity, and by extension real wages, tend to be higher the longer a country has been democratic, resulting in more moderate wage increases.

The longer employer and worker organizations have had to learn the habits of institutionalized cooperation should also be reflected in wage moderation. Presumably then the coefficient for the variable polity durability should be negatively signed. This, however, did not turn out to be the case. The most likely explanation for this result is that the durability of democracy as a political regime is not associated with more peaceful industrial relations in some countries. This supports the claim that relevant studies of labor politics in new democracies have underestimated the extent of labor conflict following the transition to democracy.

Finally, estimates of partisan differences conform to our theoretical expectations and remain identical across models. Left governments are associated with a reduction of approximately 6.62 per cent in overall unit labor costs in a given year. Conservative governments, on the other hand, are associated with a 1.45 per cent decline. Somewhat surprisingly, however, these partisan variables did not turn out to be statistically significant.

Figure 2 plots the mean of regression predicted values vs. the average wage regulation score for each country from 1994 to 2003. Controlling for average wage regulation, Figure 2 shows that countries with higher wage costs tend to be less economically developed or less durable as democratic regimes. The results are then consistent with our expectation that higher levels of economic development and longer democratic durability tend to decrease wage costs.

In the following section, I proceed to a direct test of the effect of labor market deregulation on industrial conflict.

Labor Market Deregulation and Protest

Since industrial conflict is a multidimensional phenomenon, it is important to consider its various manifestations. Collecting information on the duration and number of contentious events, in addition to the number of people involved, has long been advocated by students of contentious politics (Tilly, 1978). Unfortunately, days lost to strikes cannot be used in the analysis due to the high number of missing observations this variable contains. The number of strikes and lockouts in a given year and the number of workers involved aggregated at the country level are then the two dependent variables considered.

© 2008 The Author. Journal compilation © 2008 Political Studies Association POLITICAL STUDIES: 2008

16



Figure 2: Conditional Effect of Wage Deregulation on Overall Unit Labor Costs, 1994–2003

Note: Mean of regression predicted change in wage costs vs. the average wage deregulation score for each country, 1994–2003.

A strike can be defined as a work stoppage by one or more groups of workers whereas a lockout refers to the temporary closure by employers of one or more firms.²⁷ These collective events sometimes involve other workers and employers indirectly. In some cases, however, the data exclude lockouts or workers indirectly involved, which would provide a complete picture of the extent of conflict among capital owners and workers. These limitations are summarized in Table 3. Since these data are missing at random, however, they are not likely to bias the results systematically. Unless otherwise specified then, both dependent variables are event counts referring to the total labor force in a particular country and are taken from the International Labour Organization's LABORSTA internet database.²⁸

As pointed out before, fixed effects are likely to be imprecise because they only use the time-series variation within countries. Random-effects estimation models country-specific constant terms as randomly distributed across cross-sectional units.²⁹ Random-effects estimates will be biased if explanatory variables are correlated with the unit-level indicator. Fixed effects will be inefficient, however, if explanatory variables are uncorrelated with the unit-level variables.

ork stoppages beginning in the year indicated cludes lockouts and workers indirectly involved cludes lockouts and workers indirectly involved 04–5: work stoppages in which 800 hours or more not worked beginning 1996: stoppages involving 10 workers or more cludes workers indirectly involved fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved
cludes lockouts and workers indirectly involved 94–5: work stoppages in which 800 hours or more not worked beginning 1996: stoppages involving 10 workers or more cludes workers indirectly involved fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
04–5: work stoppages in which 800 hours or more not worked beginning 1996: stoppages involving 10 workers or more cludes workers indirectly involved fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
beginning 1996: stoppages involving 10 workers or more cludes workers indirectly involved fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
beginning 1996: stoppages involving 10 workers or more cludes workers indirectly involved fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
beginning 1996: stoppages involving 10 workers or more cludes workers indirectly involved fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
beginning 1996: stoppages involving 10 workers or more cludes workers indirectly involved fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
fers to strikes beginning in the year indicated. Excludes ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
ockouts, enterprises covered by local jurisdiction, workers ndirectly involved in strikes and workers in positions of trust
had a surface we are have a sub-
ludes union members only
cludes work stoppages lasting less than a full day or shift.
cludes workers indirectly involved
cludes lockouts, strikes in public administration and workers ndirectly involved
cludes lockouts
cludes workers indirectly involved
cludes workers indirectly involved
cludes lockouts
e strike represents one establishment on strike

Table 3: Description of Strikes/Lockouts and Workers Involved by Country

I use the conditional negative binomial model (Hausman *et al.*, 1984), a more robust form of Poisson regression for over-dispersed count-dependent variables (Krain, 1998). Since the partisan variables did not turn out to be significant in the previous analysis, I do not decompose executive partisanship into its individual categories. Doing so increases multi-collinearity in a model with country-specific indicator variables. To account for the unbalanced nature of the panel, the model conditions on the total number of observations per cross-section. The resulting coefficients can then be interpreted as reflecting the effect of changes in the variable of interest within each country. I report both sets of estimates in Table 4.

As Table 4 shows, both the number of strikes and lockouts and the number of workers involved in this form of collective action increase with wage deregulation. Secondly, the number of workers involved decreases with employment deregulation, but the effects for this variable are smaller. Since our measure of labor power or PLP had a high number of missing observations, I also estimated models that excluded this variable. The results, however, did not change appreciably.

	Strikes and lockouts (random effects)	Workers involved (random effects)	Strikes and lockouts (fixed effects)	Workers involved (fixed effects)
Executive partisanship	-0.039	-0.131	-0.031	-0.109
	(0.080)	(0.101)	(0.082)	(0.106)
Polarization	0.217	0.118	0.232	0.134
	(0.086)**	(0.108)	(0.087)***	(0.111)
Potential labor power	-0.010	0.005	-0.009	0.004
	(0.009)	(0.009)	(0.009)	(0.009)
Wage deregulation	0.432	0.664	0.383	0.669
	(0.164)***	(0.195)***	(0.165)**	(0.192)***
Employment deregulation	-0.028	-0.374	-0.015	-0.337
	(0.165)	(0.182)**	(0.169)	(0.199)*
Consumer price index	-0.008	-0.004	-0.008	-0.004
	(0.003)***	(0.003)	(0.003)***	(0.003)
GDP growth	0.009	0.025	0.009	0.029
	(0.016)	(0.022)	(0.016)	(0.022)
Unemployment	-0.008	-0.013	-0.011	-0.015
	(0.014)	(0.018)	(0.014)	(0.018)
Foreign direct investment	-0.034	0.018	-0.021	0.020
	(0.035)	(0.039)	(0.035)	(0.040)
Polity durability	0.024	0.034	0.010	0.019
	(0.024)	(0.023)	(0.026)	(0.025)
Labor productivity	0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)*	(0.000)	(0.000)*
Constant	-0.485	-0.560	-0.380	-0.506
	(0.899)	(1.037)	(0.893)	(1.075)
Observations	129	126	129	126
Number of countries	19	18	19	18

Table 4: Conditional Negative Binomial Models of Industrial Conflict in New Democracies, 1994–2003

The coefficient for executive partisanship indicates that all governments are associated with lower industrial conflict, left governments more so than conservative ones, but this variable did not turn out to be significant in this test. The fact that left parties are not significantly associated with labor quiescence tells a great deal about the changed nature of partisan politics in new democracies. The conventional wisdom holds that beginning in the mid-1980s, economic efficiency and competitiveness rather than social peace became the paramount

goal of policy-makers around the world (Buchanan and Nicholls, 2003, p. xx).

This presumably has been true for both left and conservative governments. On the other hand, the effect of government involvement in the wage-setting process is highly significant despite the limitations present in both the fixed and randomeffects specifications.

The only variable that did not behave according to theoretical expectations is polity durability, which is associated with increases in industrial conflict across all specifications. The result is not statistically significant, but it is in line with our analysis of wage costs. As new democracies consolidate, it is not the case that they converge towards a pattern of dampened industrial conflict. This provides added support for the claim that labor market institutions in new democracies do not necessarily favor the interests of workers.

To summarize, although partisan factors have received considerable attention in studies of labor politics in new democracies, the analysis indicates that governments, regardless of their partisanship, seem to be increasingly associated with more flexible labor market policies and institutions in new democracies. While differences between left and conservative governments continue to shape the political economy of labor market regulation in new democracies, these differences are less consistent than they once were in the advanced industrialized democracies.

Conclusion

In recent years, political scientists have taken stock of labor responses to political and economic reforms in new democracies. The current global wave of democratization highlights the interaction between institutions that expand access to the political process for certain groups and governments that mediate the outcomes of these institutions. Democracy presupposes conflicts of interest between workers and governments on the one hand, and workers and employers on the other. This article has systematically analyzed the effect of consultation and bargaining on the conflicting preferences of workers and employers, and how governments mediate between the two. It has done so, moreover, by looking at the regulation of the wage-setting process and employment relationship simultaneously.

The results of this study downplay the effect of partisan explanations of labor politics. To be sure, left governments are still associated with lower wage costs than their conservative counterparts in new democracies. Lower government regulation of the wage-setting process, however, results in reduced compensation for workers (and hence more industrial conflict) regardless of the partisan composition of the executive. In essence, workers behave more militantly when the balance of power between themselves and their employers favors the latter group.

As the first large-N study of the effects of labor market regulation in new democracies, the conclusions presented here are in need of further validation.

More work should attempt to replicate the results obtained using different indicators of labor market regulation as they become available. The article demonstrates, however, that whereas labor quiescence went hand in hand with relatively modest increases in earnings in a number of established democracies, wage increases are what produce labor quiescence in new or Third Wave democracies. As argued here, lower government involvement in labor market institutions results in practices or policies that downgrade the role of collective actors (governments, unions and employers) in the provision, determination or implementation of worker compensation. The result is lower compensation for workers. In this situation, protest becomes a vehicle for influence and advantage by workers in the political institutions as well as the market.

Data Sources and Definitions			
Variables	Description	Sources	
Dependent variable	es		
Overall unit labor costs	Percentage change in the cost of producing one unit of output over the previous year, in local currency, with respect to the average monthly wage	Economist Intelligence Unit Market Indicators and Forecasts ³⁰	
Strikes and lockouts	Count of all strikes and lockouts in a given year	LABORSTA internet	
Workers involved Independent variat	Count of all workers involved in strikes in a given year	LABORSTA internet	
Executive	Partisanship of chief executive's party. Right (–1); Center (0); Left (1)	Database of Political Institutions	
Polarization	Maximum polarization between the executive party and the four principle parties of the legislature. (0) if elections are not competitive or the chief executive's party has an absolute majority in the legislature. Otherwise the maximum difference between the chief executive's party's value and the values of the three largest government parties and the largest opposition party	Database of Political Institutions	
Durability	Indicator of polity durability based on the number of years since the last (3-point or greater) regime transition	Polity IV dataset ³¹	

Appendix

Appendix Continued

'ariables	Description	Sources
Potential labor power	(Ratio of the numbers employed in skill-intensive manufacturing industries relative to numbers employed in low-skill manufacturing industries) * (1 divided by the number of surplus laborers in the economy) Surplus laborers is calculated as the total working-age population (between 15 and 65) minus the total labor force minus students enrolled in secondary and tertiary education. This total is taken as a percentage of the economically active population	United Nations Industria Development Agency CD-Rom. World Development Indicators UNSTATS
Wage deregulation	 (1) Very low: government determines wage structure. (2) Low: extensive wage controls; government influence extensive. (3) Moderate: some controls including strict minimum wage law. (4) High: wages determined mainly by supply and demand; some minimum wage regulations for specific sectors. (5) Very high: wages determined by supply and demand; no wage regulation; no minimum wage law or law not enforced 	Economist Intelligence Unit Market Indicator and Forecasts
Employment deregulation	Deregulation of laws on hiring and firing practices: (1) Very low; (2) Low; (3); Moderate; (4) High; (5) Very high	Economist Intelligence Unit Market Indicator and Forecasts
Consumer price index	Annual consumer price index (1995 = 100).	World Development Indicators ³²
Growth in GDP per capita	Annual per cent	World Development Indicators
Unemployment	Percentage of the labor force unemployed	World Development Indicators
Foreign direct investment	Net incoming foreign direct investment as a percentage of GDP in constant terms	World Development Indicators
Labor productivity	Gross domestic product (GDP) at purchasing power parity (PPP) in US\$ per person employed	Economist Intelligence Unit Market Indicator and Forecasts

(Accepted: 15 May 2007)

About the Author

José Alemán, Political Science Department, Fordham University, 441 East Fordham Road, Bronx, NY 10458, USA; email: *aleman@fordham.edu*

Notes

Previous versions of this article were presented at the 2005 Annual Meeting of the Western Political Science Association and the 2005 Annual Meeting of the American Political Science Association. I would like to thank Michael Donnelly for editorial assistance and Kosuke Imai, Jai Kwan Jung, Thomas Plümper, Bruce Western and three anonymous reviewers for helpful comments on previous drafts of this article.

- 1 New democracies are defined as countries that began their transition to democracy in or after 1974, the date most commonly used as the beginning of the Third Wave of democratization.
- 2 Tripartite bodies commonly known as Labor Advisory Councils were set up to facilitate labor–business and labor–government cooperation in many Latin American countries (Bronstein, 1995).
- 3 See also Katzenstein, 1985; Buchanan, 1995; Crepaz, 1996; Lijphart, 1999; Culpepper, 2002.
- 4 Statistical Appendix of 1997–8 World Labour Report, http://www.ilo.org/public/english/dialogue/ifpdial/publ/ wlr97/annex/tab31.htm.
- 5 Some recent studies that reflect this orientation include Burgess (1999; 2004); Murillo (2005); Robertson (2004).
- 6 Relevant studies of changes in labor laws include Bronstein (1995; 1997); Córdova (1996); Cazes and Nesporova (2001); Tokman (2002).
- 7 For some scholars, this also explains why employment flexibility has advanced further in particular countries. See Burgess (1999; 2004); Murillo (2005).
- 8 Robertson (2004) and Murillo (2000; 2001) claim, for example, that unions are more likely to be militant when competing left parties can mobilize factions of the labor movement disloyal to the government.
- 9 An alternative global index of wage regulation, the Representation Security Index (RSI), puts South Africa in the top category along with fourteen other Western European countries and Bulgaria. The RSI measures the 'Protection of collective voice in the labour market, through independent trade unions and employer associations incorporated economically and politically into the state' (ILO, 2004, p. 14). The index, however, cannot be used here since it is only available for 1999.
- 10 I thank Pat Thaker for explaining how the score is calculated and providing some relevant examples.
- 11 'Concertation can be defined as an attempt to reinforce forms of regulation that combine the roles of interest associations and of the state to produce a mix of control and consensus.' For an elaboration of this logic, see Regini (2000, pp. 8–9).
- 12 The EIU measures of labor market regulation employed here are based on detailed knowledge of countries' economic policy settings. Dimitra Poulis (Personal communication, 14 October 2004), dimitrapoulis@eiu.com
- 13 The exceptions are Greece (where the national minimum wage rate is fixed by collective agreement), Ecuador (where minimum wages are set by a tripartite National Wage Council and approved by ministerial accord) and Ukraine. See Eyraud and Saget (2005, pp. 18–22).
- 14 Schmitter (1981) argues that the relationship between the ideological orientation of the government and the presence of neo-corporatist institutions is not deterministic. In reality, however, the two tend to be highly correlated. Others claim, however, that the strength of the left is a better predictor of strike activity than the various measures of corporatism available in the literature and that regressions including only one of these variables come to the same qualitative result, but with lower fit. See Tsebelis and Lange (1995, p. 118).
- 15 This variable was derived from the Database of Political Institutions' 'Chief Executive's Party' variable. See Beck et al. (2001).
- 16 Examples include the Peronist party in Argentina, the National Revolutionary Movement in Bolivia, Solidarity in Poland, the African National Congress in South Africa, the Institutional Revolutionary party (PRI) in Mexico, the Spanish Socialist Workers' party (PSOE) and the Venezuelan Democratic Action (DA). See Burgess (1999).
- 17 This was the situation in Argentina, and to a lesser extent in Brazil and Uruguay, during the first years of the new democratic regimes. See Buchanan (1995, pp. 45–6).
- 18 For the International Standards Industrial Classification of all economic activities, 3-Digit Level or Revision 2, see http://www.unido.org/doc/3531/
- 19 This rules out the inclusion of Mexico before 1997 and Pakistan after 1999.

^{© 2008} The Author. Journal compilation © 2008 Political Studies Association POLITICAL STUDIES: 2008

- 20 Alternative estimators include random-effects and panel-corrected standard errors with a lagged dependent variable. See Beck and Katz (1995). The random-effects estimator, however, does not allow country indicator variables to be correlated with explanatory variables. A model with panel-corrected standard errors would not be appropriate either since the number of time periods T in the data equals 10. This transformation is suitable for time-series cross-sectional (TSCS) data where T is typically greater than 20, not panel data sets with Ts in the single digits.
- 21 For a thorough discussion of this point and some relevant examples see Plümper et al. (2005).
- 22 Typical data sets in comparative political economy tend to be highly collinear and not drawn from a random sample. See Western and Jackman (1994).
- 23 This model can be estimated using the xtfevd command in Stata 9.2. For a detailed derivation of the formula, see Plümper and Troeger (2005).
- 24 Alternatively, one may introduce a lagged dependent variable on the right-hand side of the model. See Beck and Katz (1995). The Wooldridge test for autocorrelation in panel data, however, rejected the null hypothesis of no first-order autocorrelation in the presence of a lagged dependent variable. See Plümper *et al.* (2005), who warn against the blind use of this procedure. Excluding a lagged dependent variable, on the other hand, results in a non-significant p-value of 0.15, accepting the null hypothesis of no first-order autocorrelation in the data.
- 25 Executive partisanship includes information on whether the chief executive's party is left, center or right of the partisan political spectrum. To model categorical variables, one category (in this case center government) is selected as the reference category, leaving its effect to be absorbed by the intercept of the model. The coefficients on the remaining categories then reflect the average difference in other categories of the variable from the omitted category.
- 26 The robust cluster option uses the Huber/White sandwich estimator to correct standard errors in the presence of any pattern of heteroskedasticity and correlation of the error terms within units.
- 27 http://laborsta.ilo.org/
- 28 See http://laborsta.ilo.org/
- 29 In both the random-effects and fixed-effects cases, the dispersion is the same for all elements in the same group. In the random-effects model, the dispersion varies randomly from group to group, while in the fixed-effects model it can take on any value, since a conditional likelihood is used in which the dispersion parameter drops out of the estimation. See Hausman *et al.* (1984).
- 30 http://countryindicators.bvdep.com/cgi/template.dll?product=103&user=ipaddress
- 31 Polity IV dataset, http://www.cidcm.umd.edu/polity/
- 32 World Development Indicators Online, http://devdata.worldbank.org/dataonline/

References

Agénor, P. (1996) 'The Labor Market and Economic Adjustment', IMF Staff Papers, 43 (2), 261-335.

- Beck, G., Clarke, A., Groff, P. K. and Walsh, P. (2001) 'New Tools in Comparative Political Economy: The Database of Political Institutions', *World Bank Economic Review*, 15 (1), 165–76.
- Beck, N. and Katz, J. N. (1995) 'What to Do (and Not to Do) with Time-Series Cross-Section Data', American Political Science Review, 89 (3), 634–47.
- Blake, C. H. (1994) 'Social Pacts and Inflation Control in New Democracies: The Impact of Wildcat Cooperation in Argentina and Uruguay', *Comparative Political Studies*, 27 (3), 381–401.
- Boix, C. (1997) 'Political Parties and the Supply Side of the Economy: The Provision of Physical and Human Capital in Advanced Economies, 1960–90', *American Journal of Political Science*, 41 (3), 814–45.
- Boix, C. (1998) Political Parties, Growth and Equality: Conservative and Social Democratic Economic Strategies in the World Economy. New York: Cambridge University Press.
- Boix, C. (2000) 'Partisan Governments, the International Economy, and Macroeconomic Policies in Advanced Nations, 1960–93', World Politics, 53 (1), 38–73.
- Borisov, V. and Clarke, S. (2006) 'The Rise and Fall of Social Partnership in Postsocialist Europe: The Commonwealth of Independent States', *Industrial Relations Journal*, 37 (6), 607–29.
- Botero, J., Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2004) 'The Regulation of Labor', Quarterly Journal of Economics, 119 (4), 1339-82.
- Brady, D. (2003) 'The Politics of Poverty: Left Political Institutions, the Welfare State, and Poverty', Social Forces, 82 (2), 557–88.

- Bresser Pereira, L. C., Maravall, J. M. and Przeworski, A. (1993) Economic Reforms in New Democracies: A Social Democratic Approach. Cambridge: Cambridge University Press.
- Bronstein, A. S. (1995) 'Societal Change and Industrial Relations in Latin America: Trends and Prospects', International Labour Review, 134 (2), 163–87.
- Bronstein, A. S. (1997) 'Labor Law Reform in Latin America: Between State Protection and Flexibility', International Labour Review, 136 (1), 5–26.
- Buchanan, P. G. (1995) State, Labor, Capital: Democratizing Class Relations in the Southern Cone. Pittsburgh PA: University of Pittsburgh Press.
- Buchanan, P. G. and Nicholls, K. (2003) Labour Politics in Small Open Democracies: Australia, Chile, Ireland, New Zealand, and Uruguay. New York: Palgrave Macmillan.
- Burgess, K. (1999) 'Loyalty Dilemmas and Market Reform: Party–Union Alliances under Stress in Mexico, Spain, and Venezuela', World Politics, 52 (1), 105–34.
- Burgess, K. (2004) Parties and Unions in the New Global Economy. Pittsburgh PA: University of Pittsburgh Press.
- Calmfors, L. and Driffill, J. (1988) 'Centralization and Wage Bargaining', Economic Policy, 3 (1), 13-61.
- Cameron, D. R. (1984) 'Social Democracy, Corporatism, Labour Quiescence, and the Representation of Economic Interests in Advanced Capitalist Society', in J. H. Goldthorpe (ed.), Order and Conflict in Contemporary Capitalism: Studies in the Political Economy of Western European Nations. Oxford: Oxford University Press, pp. 143–78.
- Carbonaro, W. (2006) 'Cross-National Differences in the Skills-Earnings Relationship: The Role of Labor Market Institutions', Social Forces, 84 (3), 1819–42.
- Cazes, S. and Nesporova, A. (2001) 'Labour Market Flexibility in the Transition Countries: How Much is Too Much?', International Labour Review, 140 (3), 293–325.
- Cook, M. L. (1998) 'Toward Flexible Industrial Relations? Neo-Liberalism, Democracy, and Labor Reform in Latin America', *Industrial Relations*, 37 (3), 311–37.
- Cook, M. L. (2007) The Politics of Labor Reform in Latin America: Between Flexibility and Rights. University Park PA: The Pennsylvania State University Press.
- Crepaz, M. M. L. (1996) 'Consensus versus Majoritarian Democracy: Political Institutions and their Impact on Macroeconomic Performance and Industrial Disputes', *Comparative Political Studies*, 29 (1), 4–26.
- Crouch, C. (1985) 'Conditions for Trade Union and Wage Restraint', in L. N. Lindberg and C. S. Maier (eds), The Economics of Inflation and Economic Stagnation. Washington DC: Brookings Institution.
- Culpepper, P. D. (2002) 'Powering, Puzzling, and "Pacting": The Informational Logic of Negotiated Reforms', Journal of European Public Policy, 9 (5), 774–90.
- Córdova, E. (1996) 'The Challenge of Flexibility in Latin America', Comparative Labor Law Journal, 17 (2), 314-37.
- Deyo, F. C. and Agartan, K. (2003) 'Markets, Workers and Economic Reforms: Reconstructing East Asian Labor Systems', Journal of International Affairs, 57 (1), 55–79.
- Esping-Andersen, G. (1990) Three Worlds of Welfare Capitalism. Princeton NJ: Princeton University Press.
- Esping-Andersen, G. and Regini, M. (2000) Why Deregulate Labour Markets? Oxford: Oxford University Press.
- Etchemendy, S. (2004) 'Repression, Exclusion, and Inclusion: Government–Union Relations and Patterns of Labor Reform In Liberalizing Economies', *Comparative Politics*, 36 (3), 273–312.
- Eyraud, F. and Saget, C. (2005) The Fundamentals of Minimum Wage Fixing. Geneva: International Labour Office.
- Freeman, R. B. (1992) 'Labor Market Institutions and Policies: Help or Hindrance to Economic Development?', Proceedings of the World Bank Annual Conference on Development Economics, pp. 117–56.
- Greskovits, B. (1998) The Political Economy of Protest and Patience: East European and Latin American Transformations Compared. Budapest: Central European University Press.
- Hausman, J., Hall, B. H. and Griliches, Z. (1984) 'Econometric Models for Count Data with an Application to the Patents–R & D Relationship', *Econometrica*, 52 (4), 909–38.
- Heckman, J. and Pagés-Serra, C. (2004) Law and Employment: Lessons from Latin America and the Caribbean. Chicago IL: Chicago University Press.
- Hicks, A. M. (1999) Social Democracy and Welfare Capitalism: A Century of Income Security Politics. Ithaca NY: Cornell University Press.

- Honeybone, A. (1997) 'Introducing Labour Flexibility: The Example of New Zealand', International Labour Review, 136 (4), 493–507.
- Hsiao, C. (2003) Analysis of Panel Data. New York: Cambridge University Press.
- International Labour Organization (ILO) (1997) World Labour Report: Industrial Relations, Democracy and Social Stability. Geneva: International Labour Office.
- International Labour Organization (ILO) (2004) *Economic Security for a Better World*. Geneva: International Labour Office.
- Ishikawa, J. (2003) Key Features of National Social Dialogue: A Social Dialogue Resource Book [online]. Available from: http://www.ilo.org/public/english/dialogue/ifpdial/downloads/papers/key.pdf [Accessed 25 May 2005].
- Katzenstein, P. J. (1985) Small States in World Markets: Industrial Policy in Europe. Ithaca NY: Cornell University Press.
- Keefer, P. and Stasavage, D. (2003) 'The Limits of Delegation: Veto Players, Central Bank Independence and the Credibility of Monetary Policy', American Political Science Review, 97 (3), 407–23.
- Kenworthy, L. (2001) 'Wage-Setting Measures: A Survey and Assessment', World Politics, 54 (1), 57-98.
- Korpi, W. (1974) 'Conflict, Power and Relative Deprivation', American Political Science Review, 68 (4), 1569-78.
- Krain, M. (1998) 'Contemporary Democracies Revisited: Democracy, Political Violence, and Event Count Models', Comparative Political Studies, 31 (2), 139–64.
- Kurtz, M. J (2004) 'The Dilemmas of Democracy in the Open Economy: Lessons from Latin America', World Politics, 56 (2), 262–302.
- Lijphart, A. (1999) Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries. New Haven CT: Yale University Press.
- Murillo, M. V. (2000) 'From Populism to Neoliberalism: Labor Unions and Market Reforms in Latin America', World Politics, 52 (2), 135–74.
- Murillo, M. V. (2001) Labor Unions, Partisan Coalitions, and Market Reforms in Latin America. New York: Cambridge University Press.
- Murillo, M. V. (2005) 'Partisanship amidst Convergence: The Politics of Labor Reform in Latin America', Comparative Politics, 37 (4), 441–58.
- Nelson, J. M. (1991) 'Organized Labor, Politics, and Labor Market Flexibility in Developing Countries', The World Bank Research Observer, 6 (1), 37–56.
- Nollert, M. (1995) 'Neocorporatism and Political Protest in the Western Democracies: A Cross-National Analysis', in J. C. Jenkins and B. Klandermans (eds), *The Politics of Social Protest: Comparative Perspectives on States and Social Movements*. Minneapolis MN: University of Minnesota Press, pp. 138–64.
- Olson, M. (1982) The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities. New Haven CT: Yale University Press.
- Organization for Economic Cooperation and Development (OECD) (2004) OECD Employment Outlook 2004: Reassessing the OECD Jobs Strategy [online]. Available from: http://www.oecd.org/document/62/ 0,2340,en_2649_33927_31935102_1_1_1_0.html [Accessed 26 May 2005].
- Plümper, T. and Troeger, V. E. (2005) 'The Estimation of Rarely Changing Variables in Panel Data with Unit Effects', Paper presented at the American Political Science Association Annual Meeting, Washington DC, 1–4 September.
- Plümper, T., Troeger, V. E. and Manow, P. (2005) 'Panel Data Analysis in Comparative Politics: Linking Method to Theory', European Journal of Political Research, 44 (2), 327–54.
- Przeworski, A. (1992) 'The Game of Transition', in S. Mainwaring, G. O'Donnell and J. S. Valenzuela (eds), Issues in Democratic Consolidation: The New South American Democracies in Comparative Perspective. Notre Dame: University of Notre Dame Press, pp. 105–52.
- Rama, M. (2003) 'Globalization and the Labor Market', The World Bank Research Observer, 18 (2), 159-86.
- Regini, M. (2000) 'Between De-Regulation and Social Pacts: The Responses of European Economies to Globalization', *Politics and Society*, 28 (1), 5–33.
- Rhodes, M. (2001) 'The Political Economy of Social Pacts: Competitive Corporatism and European Welfare Reform', in P. Pierson (ed.), *The New Politics of the Welfare State*. Oxford: Oxford University Press, pp. 165–94.

- Robertson, G. (2004) 'Leading Labor: Unions, Politics, and Protest in New Democracies', Comparative Politics, 36 (3), 253–72.
- Rodrik, D. (1998) 'Why Do More Open Economies Have Bigger Governments?', The Journal of Political Economy, 106 (5), 997–1032.
- Rodrik, D. (1999) 'Democracies Pay Higher Wages', The Quarterly Journal of Economics, 114 (3), 707-38.
- Royo, S. (2002) ' "A New Century of Corporatism?" Corporatism in Spain and Portugal', West European Politics, 25 (3), 77–104.
- Rudra, N. (2002) 'Globalization and the Decline of the Welfare State in Less-Developed Countries', International Organization, 56 (2), 411–45.
- Schmitter, P. (1981) 'Interest Intermediation and Regime Governability in Contemporary Western Europe and North America', in S. Berger (ed.), Organizing Interests in Western Europe: Pluralism, Corporatism, and the Transformation of Politics. Cambridge: Cambridge University Press, pp. 287–330.
- Siaroff, A. (1999) 'Corporatism in 24 Industrial Democracies: Meaning and Measurement', European Journal of Political Research, 36 (2), 175–205.
- Soskice, D. (1990) 'Wage Determination: The Changing Role of Institutions in Advanced Industrialized Countries', Oxford Review of Economic Policy, 6 (4), 36-61.
- Tilly, C. (1978) From Mobilization to Revolution. Reading MA: Addison-Wesley Publishing Company.
- Tokman, V. (2002) 'Jobs and Solidarity: Challenges for Labor Market Policy in Latin America', in E. Huber (ed.), Models of Capitalism: Lessons for Latin America. Pennsylvania: The Pennsylvania State University Press, pp. 159–94.
- Traxler, F. (1995) 'Farewell to Labour Market Associations? Organized versus Disorganized Decentralization as a Map for Industrial Relations', in C. Crouch and F. Traxler (eds), Organized Industrial Relations in Europe: What Future? Brookfield VT: Aldershot, pp. 3–19.
- Trebilcock, A. (1994) Towards Social Dialogue: Tripartite Cooperation in National Economic and Social Policy-Making. Geneva: International Labour Office.
- Tsebelis, G. and Lange, P. (1995) 'Strikes around the World: A Game Theoretic Approach', in S. M. Jacoby (ed.), The Workers of Nations: Industrial Relations in a Global Economy. Oxford: Oxford University Press, pp. 101–26.
- Western, B. (1997) Between Class and Market: Postwar Unionization in the Capitalist Democracies. Princeton NJ: Princeton University Press.
- Western, B. and Jackman, S. (1994) 'Bayesian Inference for Comparative Research', American Political Science Review, 88 (2), 412–23.
- Wooldridge, J. M. (2002) Econometric Analysis of Cross Section and Panel Data. Cambridge: MIT Press.
- Zambarloukou, S. (2006) 'Collective Bargaining and Social Pacts: Greece in Comparative Perspective', European Journal of Industrial Relations, 12 (2), 211–29.

27