

## CHAPTER 14

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# INSTITUTIONS, WEALTH, AND INEQUALITY

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### INTRODUCTION

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Wealth and inequality are among the key macro-level outcomes studied by social scientists. They are of considerable interest not only to researchers but also to citizens and policymakers. This chapter reviews and assesses theories and empirical findings on the impact of institutions on national wealth and inequality. I focus on macro-comparative research on affluent countries.

National wealth typically is measured as gross domestic product (GDP) per capita. Prior to the 1970s, thinking about the determinants of national wealth was dominated by the approach used by mainstream economists. That approach focuses on capital, labour, and technology, and it assumes that poorer countries catch up with richer ones via factor equalization. In the 1950s and 1960s, patterns among the world's richest countries seemed to more or less conform to this expectation. But in the 1970s a number of these countries experienced sharp economic downturns. Moreover, their macroeconomic performance varied in ways not easily accounted for by the standard framework.

<sup>1</sup> A web appendix is available at [www.u.arizona.edu/~lkenwor](http://www.u.arizona.edu/~lkenwor); it includes a list of data definitions and sources, figures referred to in the chapter but not shown here, and the data used in the analyses.

This generated interest in the impact of economic, social, and political institutions on national wealth. Such institutions range from the organization of workers and employers to policymakers' partisan orientations to non-market or extra-market relationships between firms. Since the 1970s a growing number of social scientists have theorized and empirically assessed the effects of these and other institutions on macroeconomic outcomes such as growth, unemployment, and inflation. I re-examine the leading hypotheses about the effect of institutions on national wealth. I find little or no support for most of them in accounting for differences across affluent countries in recent decades.

The impact of institutions on inequality has received somewhat less attention from comparative researchers. This is due in part to the fact that in many countries inequality appears to have changed very little in the 1950s, 1960s, and 1970s. Perhaps more importantly, until relatively recently comparative analysis was hindered by limited availability of cross-nationally comparable data on the distribution of earnings and income. Better data are now available, and research has blossomed in the past decade. The data indicate sizeable cross-country differences in the level of inequality in the rich nations as well as substantial changes since the 1970s in some of them. Recent comparative study suggests strong effects of institutions on inequality, though important questions are as yet unanswered.

## INSTITUTIONS AND NATIONAL WEALTH

There is considerable variation in national wealth among the twenty affluent OECD countries on which comparative analysis has tended to focus. As of 2007, per capita GDP ranged from just under \$40,000 in Norway to less than \$20,000 in Portugal (in 2000 US dollars). Economic growth too has differed sharply: between 1973 and 2007 (both business cycle peak years), the average annual rate of growth ranged from 4 per cent in Ireland to 1 per cent in Switzerland.

How much of this variation, if any, is due to differences in institutions? I begin with a summary of existing theory and then turn to empirical assessment.

### Theory

A variety of hypotheses suggest effects of institutions and institutional configurations on national wealth. I focus on eight prominent ones.

#### *State guidance*

Markets are good at allocating resources to productive use. But they are far from perfect in so doing. Private investors may have short-time horizons, emphasizing

near-term profits over productivity, long-run returns, market share, or export competitiveness. They may have limited information. They may be unconcerned about spillover benefits from particular firms and industries. They may benefit from, and thereby accentuate, limits to competition. In these ways, market allocation of resources may be growth-inhibiting.

Governments can help to remedy this sort of market failure via proactive steering of capital toward particular firms or sectors (Shonfield 1965; Johnson 1982; Magaziner and Reich 1983; Zysman 1983; Hall 1986; Dore 1987; Amsden 1989; Stiglitz 1989; Rodrik 2007). Means of doing this include subsidies, favourable loan terms, assistance with coordination, export help, import protection, and public ownership. This type of state guidance sometimes is referred to as 'industrial policy'. Arguments suggesting that industrial policy boosts economic growth were particularly prominent in the 1980s and early 1990s. They often identified Japan and France as exemplars. Even the comparatively non-interventionist US government played a key role in the development of industries such as agriculture and commercial aircraft.

Sceptics of government steering of capital tend to focus on government failure (Friedman 1961; Krugman 1994). Governments too have limited information. They are subject to pressure from rent-seeking interest groups who aim for their own benefit rather than the most productive allocation of investment. While this type of government action might help in principle, say critics, in practice it tends not to.

#### *Organization of interest groups*

In democratic societies, individuals tend to organize in interest groups. These groups can contribute to well-being and happiness. But such groups also have an incentive to lobby government for special favours and impede market functioning, creating what Mancur Olson (1982) termed 'institutional sclerosis'. This tends to reduce economic growth. Olson argued that interest groups tend to accumulate over time, though wars may weaken or destroy them. The longer a country has experienced a period of uninterrupted democracy, therefore, the greater the sclerosis and the slower the rate of growth.

Olson noted that 'encompassing' interest groups—ones that represent a relatively large share of the population—have an incentive to act differently from smaller ones. Encompassing groups are more likely to internalize the costs of rent-seeking and thus to engage in behaviour that is good, rather than bad, for economic growth.

Olson (1982, 1996) thus offered two predictions about the impact of interest groups on national wealth. First, the number of years of uninterrupted democracy should be negatively related to economic growth. Second, the relationship between interest group encompassingness and economic growth should be U-shaped, with both low and high levels conducive to healthy performance.

*Corporatist concertation*

Regularized dialogue among organized interest groups and between interest groups and government may produce less conflictual behaviour and greater policy coherence (Katzenstein 1985; Wilensky and Turner 1987). Government policy choices should tend to be based on more and better information, to be better coordinated across policy areas, and to be less subject to dispute and resistance once implemented.

This type of arrangement, usually referred to as corporatism or corporatist concertation, has received perhaps more attention from comparative institutionalists than any other. Much of the theorizing and empirical assessment, however, has focused on employment performance (unemployment or employment rates and growth) rather than national wealth (see Kenworthy 2001 for citations).

*Left government*

Political parties can be expected to pursue policies that serve the real and/or perceived economic interests of their chief constituencies. For left parties this means the working class and the poor; for right parties it means owners of capital and higher-paid employees. Douglas Hibbs (1977) and others have argued that left parties are therefore likely to implement macroeconomic policy strategies that aim for low unemployment (and thus rapid economic growth), while right parties are more likely to favour low inflation (and thus slower growth).

Hibbs (1977, 1987) found support in a cross-country analysis and in an examination of the United States. Carles Boix (1999) found support in analyses of cross-country patterns, though he argued that the relevant policies are public investment and education rather than monetary and fiscal. Larry Bartels (2008) has recently updated the analysis of the US case, again finding strong support.

**Interest group-government coherence**

Following on the growing attention to government partisanship and corporatism in the 1970s and the early 1980s, Peter Lange and Geoffrey Garrett (1985) suggested a modification of the corporatism hypothesis that takes into account a potential interaction with government partisanship. They argued that when unions are centralized and strong, left governments tend to pursue expansionary fiscal and social policy, knowing that doing so will not lead to wage militancy. When unions are fragmented and weak, right governments are able to implement free-market policies. Each of these scenarios, they argued, is conducive to economic growth. In the other two possible configurations—strong unions with right government, weak unions with left government—*incoherence* between government action and union wage behaviour were predicted. This should produce slower growth. Their analyses of patterns of economic growth in affluent democracies in the 1970s and 1980s suggested support for the hypothesis (Lange and Garrett 1985; Alvarez, Garrett, and Lange 1991; Beck et al. 1993).

*Cooperation-promoting institutions*

Long-term relationships and formal organization promote cooperation within and between firms and between interest groups and the state (Zysman 1983; Dore 1987; Aoki 1988; Florida and Kenney 1990; Womack, Jones, and Roos 1990; Herrigel 1994). For example, long-term partnerships with suppliers potentially offer companies advantages relative to short-term, market-based supplier relationships or vertical integration. Such partnerships enable firms to reap the benefits of low fixed costs and supplier expertise while encouraging suppliers to invest in long-term improvements and to communicate extensively both with the purchaser and with other suppliers. Within the firm, functional specialization of the stages along the production chain—research, design, development, production, and so on—can render companies slow and ineffective at moving from creation to production. The process becomes disjointed, leading to less coherence, more delays, and higher costs as errors are discovered late in the process. Cross-functional project teams, whose members represent different departments and stay with a project as it moves through the various stages, can enhance coordination and continuity and thereby reduce the time and costs involved in bringing new products, or product improvements, to market.

Kenworthy (1995) and Hicks and Kenworthy (1998) identified cooperation-inducing institutions in nine spheres. Some apply to 'macro'-level actors (government, union confederations, employer confederations), some to the 'meso'-level (between firms), and some to the 'micro'-level (within firms). They are: (1) relations among firms across industries; (2) relations among unions; (3) relations between the state and interest groups; (4) relations among firms and investors; (5) relations among firms and suppliers; (6) relations among competing firms; (7) relations between labour and management; (8) relations among workers; (9) relations among functional departments within firms. Hicks and Kenworthy suggested that countries with greater prevalence of cooperation-inducing institutions are likely to grow more rapidly.

*Institutional coherence*

Peter Hall and David Soskice's (2001) 'varieties of capitalism' typology has been highly influential over the past decade. Hall and Soskice examined five economic 'spheres': (1) industrial relations (bargaining over wages and working conditions); (2) vocational training and education; (3) corporate governance (relations between firms and their investors); (4) inter-firm relations (between firms and their suppliers, clients, and competitors); (5) relations with employees (information-sharing, work effort incentives). Their core hypothesis is that political economies tend to be characterized by 'institutional complementarities', whereby the presence of one institution increases the efficiency of another. For instance,

long-term employment is more feasible where the financial system provides capital on terms that are not sensitive to current profitability. Conversely, fluid labor markets may be

more effective at sustaining employment in the presence of financial markets that transfer resources readily among endeavors thereby maintaining a demand for labor. (Hall and Soskice 2001: 18)

Hall and Soskice found that institutional complementarities do indeed tend to be present in the affluent OECD economies, and they suggested that these economies fall into two groups. Coordination is market-based in six 'liberal market economies': Australia, Canada, Ireland, New Zealand, the United Kingdom, and the United States. Coordination is based largely on non-market or extra-market institutions in ten 'coordinated market economies': Austria, Belgium, Denmark, Finland, Germany, Japan, the Netherlands, Norway, Sweden, and Switzerland.

Hall and Soskice (2001) and Hall and Gingerich (2004) hypothesized that economic performance is a function of institutional coherence. Both non-market- and market-oriented institutions can work well provided they are coupled with complementary institutions in other spheres. Institutional configurations that more closely correspond to either of the two pure types tend to promote growth.

#### *Ease of business start-up, hiring and firing, and reaping rewards from innovation*

Since Adam Smith (1776), a stream of analysts and commentators have argued that the institutions most conducive to national wealth in a capitalist economy are those that facilitate the ability of economic actors to form companies, hire and fire employees, and reap the rewards of innovation (North 1990; Porter 1990; Sapir et al. 2004; Baumol, Litan, and Schramm 2007). Such institutions include strong and clear protection of property rights, effective anti-trust enforcement, limited protection of market position for firms and job security for employees, a financial system that provides capital at reasonable cost, stable and consistent macroeconomic policy, government support for research and development, and wide-reaching provision of high-quality education.

This is not the same thing as *laissez-faire*, as such a framework requires an active government and may well benefit from interest group organization and coordination. Nor does it presuppose minimal taxation and government spending. As we will see in the next section, the affluent countries rated as having the best institutional framework in this respect include some with comparatively high tax and spending levels and governments that actively intervene in certain aspects of the economy.

#### *Empirical assessment*

Though by no means immune to criticism, each of these eight hypotheses is theoretically sensible. The debate cannot be resolved on theoretical grounds; it can only be adjudicated empirically. An additional virtue of an empirical assessment is

that most of these theories were initially tested over a particular and relatively short time period. To mention just one example, Katzenstein's (1985) influential book on corporatism and economic performance examined data for only the 1970s. Which of these hypotheses prove helpful when examined over a relatively lengthy set of years?

#### *Data, measures, method*

We need a measure of national wealth. As I noted earlier, the standard one is GDP per capita. GDP is a measure of economic output, and a per capita measure is an average. Both of these aspects are potentially problematic. Median household income more directly and accurately taps how the typical household is faring. However, available data suggest that across countries GDP per capita and median household income correlate quite closely (Kenworthy 2004, ch. 4). Given this, it makes sense to use GDP per capita, as it is available for more countries and years.

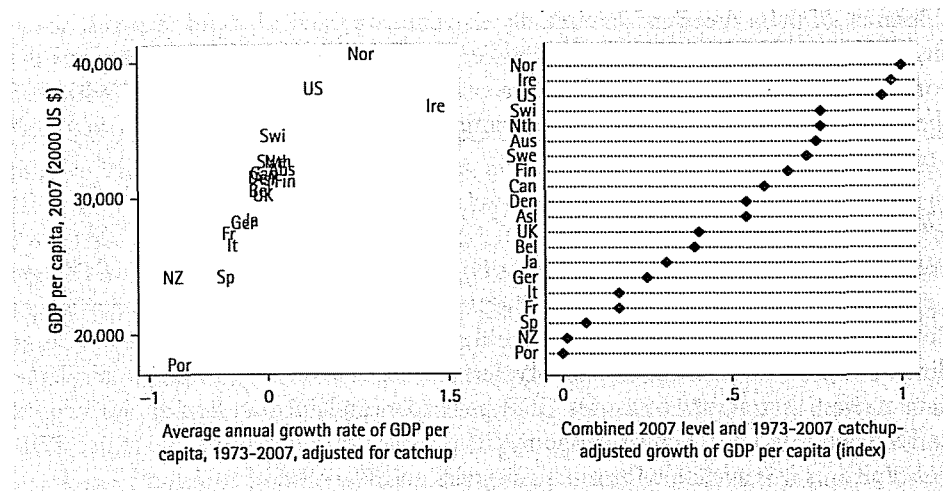
Should the focus be on variation in levels of per capita GDP or on variation in growth? I see no strong reason to prefer one or the other and so will include both.

What period should be covered? The post-war 'golden age' is widely viewed as having ended in 1973. I focus on the years since then.

In measuring economic growth, it is essential to adjust for 'catch-up' effects: countries that begin with a lower level of per capita GDP are able to grow more rapidly by borrowing technology from richer nations. I do so by regressing growth of per capita GDP on each country's level of per capita GDP in the initial year (1973). The residuals from this regression represent 'catch-up-adjusted' economic growth.

Most empirical analyses have examined growth over relatively short periods. Three considerations favour an empirical focus on the long run. First, long-term growth matters much more for countries than growth in particular periods. Second, among the countries of interest, long-run growth patterns have differed from period-specific growth patterns. Across these nations, correlations between (catch-up-adjusted) growth over 1973–2007 and over the business cycles of 1973–79, 1979–89, 1989–2000, and 2000–07 are mostly moderate in strength: .61, .32, .93, and .51, respectively. Third, many of the institutions identified in this literature change slowly, if at all, over time; hence the cross-country variation has remained relatively constant. For these reasons, I use a long-run measure. There are drawbacks: this will hide patterns that, due to variation over time in the institution or in its causal effects, are period-specific and some of these institutions are measured over only part of the 1973–2007 period. Nonetheless, in my view an assessment of long-run patterns is the preferable strategy.

As the first chart in Figure 14.1 indicates, levels of per capita GDP as of 2007 correlate quite closely with catch-up-adjusted growth rates of per capita GDP over 1973–2007:  $r = .85$ . I therefore combine the two into a single index. I rank the countries on each of the two measures, then average each country's ranking, then rescale the average rankings to vary between zero and one. The resulting measure is shown in the second chart in Figure 14.1. Higher scores indicate better national



**Figure 14.1: National wealth performance, 1973–2007**

Note: The measure in the second chart is an index that combines the two indicators shown in the first chart. It is described in the text and in the web appendix.

wealth performance over the 1973–2007 period. I use this index as the dependent variable in the analyses to follow.

## How do the institutional theories fare?

Most discussions of state guidance or industrial policy have not attempted a thorough comparative assessment of the hypothesis. Many single out Japan and France as the exemplary cases. Over the 1973–2007 period these two countries were not among the strongest performers. In the second chart in Figure 14.1, Japan ranks fourteenth and France seventeenth among the twenty countries. A dichotomous scoring in which Japan and France are coded as ‘high’ and all other countries ‘low’ correlates negatively with the national wealth performance measure. Harold Wilensky and Lowell Turner (1987: 32) attempted to rank-order eight of the countries on degree of industrial policy intervention, based on their reading of the secondary literature. This ranking too is negatively associated with the national wealth index (web appendix figure A1). Neither of these scorings, then, yields support for the government intervention hypothesis.

Two principal variables have been used to capture Mancur Olson’s institutional sclerosis theory, which emphasizes the organization of interest groups. One is the number of years since a country became democratic. The hypothesis is that in the absence of major societal disruptions, such as war, interest groups grow in size and influence, which is bad for national wealth. For this measure the expectation is for a negative association. The second is unionization. Unions are viewed as the principal example of an interest group that may impede market functioning, both by

influencing wages and employer behaviour and by lobbying government for special privileges. For this measure the expectation is for a U-shaped pattern, with countries that score low or high doing better than those at intermediate levels. Bivariate patterns do not support the Olson hypothesis (web appendix figure A2).

Corporatism has been measured in a variety of ways (Siaroff 1999; Kenworthy 2003). Some focus on the degree or centralization of union and/or employer organization. Others concentrate on the degree or type of input organized interest groups have in policy-making. The latter is the focus of the hypotheses of Katzenstein, Wilensky, and Turner, and others who argue that corporatist concertation contributes to national wealth. I consider two measures here. One, created by Siaroff (1999), is a composite index of 23 corporatism measures. The other, from Franz Traxler, Sabine Blaschke, and Bernhard Kittel (2001), aims to directly measure union participation in the policy-making process. The Siaroff corporatism index is positively correlated with the national wealth performance index, though the association is modest in magnitude ( $r = .37$ ). There is no bivariate association between union participation in policy-making and national wealth (web appendix figure A3).

The most common indicator of left government is the share of cabinet seats held by parties of the left. An alternative measure, devised and scored by Thomas Cusack (2002), assesses the political centre of gravity of the legislature, with higher scores indicating a stronger left presence. Unfortunately, these centre of gravity scores are available only through 1997. These two partisanship measures correlate at .62, suggesting similarity but far from perfect overlap. Neither is positively correlated with national wealth at the bivariate level (web appendix figure A4).

Lange and Garrett analyse the impact of interest group–government coherence using an interaction. I use an alternative measure. First, I use their ‘labour organization index’ (Alvarez, Garrett, and Lange 1991: 553) to create the union encompassingness component. Countries that score high on the index are Sweden, Norway, Austria, Denmark, Finland, and Belgium. Countries that score low are Japan, France, the United States, and Canada. New Zealand and Switzerland were not included in their scores; I add them to this low-scoring group (see Kenworthy 2003 for justification). For countries with high union encompassingness, I calculate the number of years from 1973 to 2002 (the latest year for which data are available) in which left party cabinet share was 50 per cent or more. For countries with low encompassingness, I calculate the number of years in which right party cabinet share exceeded 50 per cent. In other words, the measure is a count of the number of years in a country in which there were strong unions with left government or weak unions with right government. Higher scores reflect more interest group–government coherence. There is no indication of the expected positive association between this measure and national wealth performance; the bivariate correlation is nil (web appendix figure A5).

In testing the hypothesis that cooperation-promoting institutions boost national wealth, Kenworthy (1995) and Hicks and Kenworthy (1998) used composite measures. In the latter study, each country was scored on the prevalence (low, medium, or high) of cooperation-inducing institutions in each of nine economic spheres.

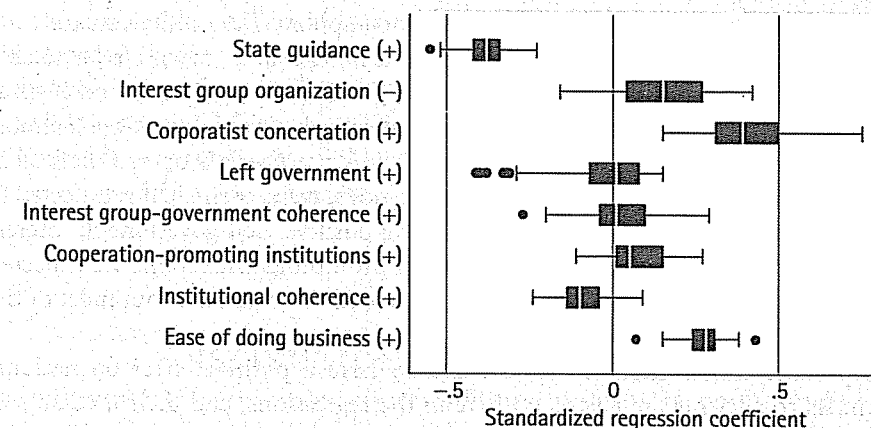
A factor analysis suggested two dimensions of cooperation: 'firm-level cooperation' and 'neocorporatism'. The former was positively associated with economic growth in pooled regressions covering eighteen countries and four business-cycle periods. But the average scores for this firm-level cooperation index over 1973–94 (the most recent years available) do not correlate positively with the national wealth index. Nor do the average cooperation scores for all nine economic spheres (web appendix figure A6).

Hall and Soskice did not attempt an empirical assessment of their hypothesis that institutional coherence contributes to national wealth, but Hall and Daniel Gingerich (2004) have done so. They develop a 'coordination index' that aims to gauge the degree to which countries rely on non-market economic institutions. The index is created via factor analysis of six indicators, each measured as of the early- or mid-1990s: (1) shareholder power; (2) dispersion of control; (3) size of the stock market; (4) level of wage coordination; (5) degree of wage coordination; (6) labour turnover. The factor analysis yielded a single factor, which is highly correlated with each of these six indicators. I have rescored the Hall-Gingerich factor scores to create a variable in which more institutional coherence is scored high and less coherence is scored low. Additionally, in a re-examination of the Hall-Gingerich analysis I created an alternative measure of institutional coherence (Kenworthy 2006). It is a three-category ranking. The bivariate association between each of these two institutional coherence measures and the national wealth index is very close to zero (web appendix figure A7).

Baumol, Litan, and Schramm (2007) suggest that a useful measure of the ease of starting a business, hiring and firing employees, and reaping the rewards of innovation is an 'ease of doing business' index created by the World Bank. Each country is scored in five areas: (1) the cost of starting a business (percentage of income per capita); (2) the cost of registering property; (3) the difficulty of hiring employees (index); (4) the difficulty of firing employees (index); (5) the cost of enforcing contracts (percentage of debt). These scores are aggregated to form an index, which is rescaled to vary from zero to one. A key limitation of the ease of doing business index is that it is available only beginning in the mid-2000s, which is the end of the period over which national wealth performance is measured. An alternative is an index of product market regulations. Such regulations include barriers to entry, barriers to trade, price controls, government involvement in business operations, public ownership, and market concentration. The OECD (2002a) has created a summary indicator—an index ranging from zero to six—based on product market regulations in seven industries. I use an updated version of these data from Bassanini and Duval (2006); it covers the period from 1982 to 2003. For both of these indicators, the bivariate association with the national wealth measure is in the hypothesized direction, and the correlation coefficients are of moderate magnitude ( $r = .37, -.30$ ; see web appendix figure A8).

Among these eight hypothesized institutional determinants of national wealth, then, the bivariate patterns suggest support for only two: corporatist concertation and the ease of doing business.

Figure 14.2 shows the results of multivariate regression analyses. The regressions are ordinary least squares. The dependent variable is the national wealth performance



**Figure 14.2: Regression results: hypothesized institutional determinants of national wealth**

Note: Standardized coefficients from ordinary least squares (OLS) regressions using all possible combinations of three or fewer of the independent variables. The independent variables include the eight listed in the figure plus imports and real long-term interest rates. The expected coefficient signs are shown in parentheses. The sign for interest group organization is expected to be negative because the indicator is the number of years of uninterrupted democracy. Dependent variable: national wealth performance, 1973–2007 (see Figure 14.1). Portugal and Spain are not included due to missing data. The 'whiskers' represent the minimum and maximum coefficients. The edges of the box indicate the 25th- and 75th-percentile coefficients. The vertical white line is the median coefficient. Separate dots indicate 'outliers'—coefficients that are substantially larger or smaller than the others for that variable. The number of regressions for each independent variable ranges from 37 to 45. For data definitions and sources, see the web appendix.

index (Figure 14.1). There are eighteen observations: the twenty countries minus Portugal and Spain, which are missing for too many of the measures to be included. Each institutional hypothesis is represented by one indicator. In all but one instance I use the one for which the evidence from the bivariate analyses is most supportive. The exception is the institutional coherence hypothesis; I use the Hall-Gingerich index because the other measure was created largely for purposes of sensitivity testing. To the eight institutional variables I add two controls: (1) imports as a share of GDP averaged over 1973 to 2007, to account for impact of globalization; (2) real long-term interest rates, also averaged over 1973–2007, to control for monetary policy choices that often are outside the influence of interest groups and political parties.

I estimate a series of regressions that include all possible combinations of three or fewer of the independent variables. This amounts to approximately forty regressions for each institutional variable. Figure 14.2 reports the results for each variable in a 'box-and-whisker' plot (boxplot). To enable comparison of their magnitude, the coefficients are standardized. No estimates of statistical significance are reported, as this group amounts to more or less the full population of rich countries over the past several decades rather than a representative sample.

The multivariate results are largely consistent with the bivariate patterns. Six of the eight institutional hypotheses receive little or no support. The coefficients for state guidance, interest group organization, and institutional coherence tend to be notably different from zero, but they have the wrong sign. The state guidance and institutional coherence coefficients are expected to be positively signed, but they are almost always negative. Olson's interest group organization hypothesis is operationalized as a country's number of years of uninterrupted democracy; its coefficient is expected to be negatively signed but instead is nearly always positive. Left government, interest group-government coherence, and cooperation-promoting institutions are expected to have positively signed coefficients. Each does tend to be positive, but most of the coefficients are close to zero.

Corporatist concertation is hypothesized to have a positive effect on national wealth. Its coefficients are always positive in the regressions, and their median size is .39. Norway is a key supportive case—high corporatism, strong national wealth performance (see web appendix figure A3)—and Norway's position on the national wealth measure must be tempered by recognition of the role North Sea oil has played in raising the country's gross domestic product. If Norway is omitted from the regressions, the median coefficient drops to .29; but the smallest remains well above zero, at .15.

The 'ease of doing business' coefficient is consistently positive in the regressions. The median coefficient is .28. This result is somewhat sensitive to the countries included. If Norway or the United States is omitted, the association remains consistently positive but the median coefficient shrinks to .18 and .17, respectively. On the other hand, with New Zealand excluded the median coefficient jumps to .50. As noted earlier, it bears emphasizing that the 'ease of doing business' does not require low taxes or a minimal welfare state. All of the Nordic countries feature comparatively heavy taxation and government spending, yet Norway and Denmark rank among the top five on the 'ease of doing business' index and Sweden and Finland are among the top ten (web appendix figure A8). Nor are any of these countries on the high end in strictness of product market regulations.

### Summary: Institutions and national wealth

We have a number of plausible theories about the impact of institutions on national wealth. But the empirical record of the past generation offers little evidence of strong institutional effects. Six of the eight hypotheses examined here receive no support at all. And a regression that includes the only two that are robustly associated with national wealth performance in the expected direction—corporatist concertation and the 'ease of doing business'—accounts for a relatively small amount of the cross-country variation ( $R^2 = .24$ ).

The lack of association between most of the institutional factors and national wealth does not necessarily mean these theories are wrong. One or more may apply to a subset of the countries but not to others. And some may hold only for certain

time periods. Also, some may work only under particular conditions; that is, they may be observable only via interactions that I have not considered here. An additional possibility is that measurement problems have prevented true associations from being revealed.

Still, this look at the data, across a larger number of countries and a longer period of time than in previous research, suggests reasons for a healthy dose of scepticism about most of these institutional hypotheses.

## INSTITUTIONS AND INEQUALITY

In this section, I explore the impact of institutions on cross-country and over-time variation in inequality. There are numerous aspects of inequality. Reliable comparative data are available mainly for earnings and income, so that will be my focus here. The distribution of posttransfer-posttax ('disposable') income among households is what researchers and policymakers should, ultimately, be most interested in understanding (Kenworthy 2008). This is influenced primarily by the distribution of earnings among employed individuals, by the distribution of employment and earnings among households, and by government redistribution (Kenworthy 2004, 2008). I consider each of these three here. The comparative evidence suggests strong effects of institutions on inequality.

### Inequality of earnings across employed individuals

Earnings inequality refers to the distribution of earnings among individuals who are employed. The best available comparative data, compiled by the OECD, include only people employed full-time (30 hours or more per week). This is sensible, as those employed part-time tend to earn less not only on a per hour basis but also because they work fewer hours.

The most common framework for explaining earnings inequality among employed individuals focuses on supply and demand factors. These include the distribution of skills across individuals, employer demand for different skills, the distribution of employment across sectors and firms, the degree of trade and foreign investment, and the gender and immigrant share in employment, among others (Katz and Autor 1999; Morris and Western 1999; Gottschalk and Danziger 2005; Mishel, Bernstein, and Shierholz 2009).

Earnings inequality is closely correlated across countries with the distribution of skills, if the latter is measured using literacy. But there is reason to doubt that this correlation indicates a strong causal relationship. Dan Devroye and Richard Freeman (2002) decompose the variation in earnings inequality across four countries: Germany, the Netherlands, Sweden, and the United States. They find

that literacy inequality accounts for only 7 per cent of the variation. A much larger portion of the variation, 36 per cent, owes to the larger skill premium in the United States than in the other three countries. In other words, the variation in earnings inequality across these four countries is more a product of the degree to which skills differences translate into earnings differences than of the degree of skills differences per se. Devroye and Freeman then examine earnings inequality among Americans within relatively narrow bands of skills and find that earnings inequality within such groups tends to exceed earnings inequality among *all* employed individuals in the other three countries. Francine Blau and Lawrence Kahn (2002*b*) have used the International Adult Literacy Survey (IALS) data to examine men and women separately and native-born and immigrant Americans separately, and they reach a similar conclusion.

Institutional factors that have been highlighted include the level of unionization, the centralization of wage bargaining, government-established minimum wages, the share of employment that is in the public sector, and the types of pay schemes used by firms (skill-based, seniority-based, performance-based). Among the rich nations, a sizable amount of the cross-country variation in earnings inequality can be explained by two of these institutional factors: the degree of unionization and the degree of centralization of wage bargaining (web appendix figure A9; Wallerstein 1999; Rueda and Pontusson 2000; Blau and Kahn 2002*b*; Devroye and Freeman 2002; Card, Lemieux, and Riddell 2003; DiPrete 2005; Koeniger, Leonardi, and Nunziata 2007; Baccaro 2008; Kenworthy 2008).

What are the causal mechanisms linking unionization and wage centralization to low earnings inequality? Unions tend to be committed to some degree of wage compression, for ideological reasons and as a strategy for helping their least advantaged members (Freeman and Medoff 1984; Swenson 1989; Wallerstein 1999). They have greater leverage in wage bargaining than do individual employees, and hence are to some degree able to implement this preference. Centralization of wage bargaining across firms and sectors magnifies both the incentive and power effects.

Does one of these two institutional factors matter more than the other? Cross-sectional analysis cannot help, because unionization and wage centralization are too closely correlated across nations. We might, therefore, turn to over-time developments within countries since the early 1970s (see web appendix figure A10). Unfortunately, this too yields no definitive answer. In the United States earnings inequality has risen sharply. Unionization declined through most of this period, whereas wage centralization began minimal and remained so. This suggests a key role for unionization. In Sweden, by contrast, earnings inequality increased in the 1980s (though far less than in the US) despite rising union density. This rise seems much more likely to have been influenced by the decline in bargaining centralization that occurred in the early 1980s. In the United Kingdom, rising earnings inequality in the 1980s coincided with 'both' falling unionization and a decline in wage centralization.

In a recent analysis of cross-country variation in change in earnings inequality, Oskarsson (2005) suggests that the level of wage centralization mediates the impact of factors such as trade and unionization (see also Kenworthy 2007). In a decentralized bargaining context, increased trade with less developed countries and/or declining unionization yield rising earnings inequality. Where bargaining is centralized, they do not.

The theories and data I have discussed thus far apply to inequality of earnings among the bulk of those with paying jobs. But surveys, which are the basis of data on earnings for most countries, have a difficult time capturing the earnings and incomes of those at the very top of the distribution; to ensure participation of the highest earners in such surveys, high earnings often are 'top coded'. In recent years several analysts have examined tax data in order to get better information about top earnings and incomes (Atkinson and Piketty 2007*a*, 2007*b*; Leigh 2007).

In most of the countries for which data are available, the top 1 per cent's share declined from 1950 through the 1970s (web appendix figure A11). Around 1980 the trend began to diverge sharply. In five English-speaking countries—Australia, Canada, New Zealand, the United Kingdom, and the United States—the top 1 per cent's share has risen rapidly. In five other nations—France, Germany, Japan, the Netherlands, and Sweden—it has either held constant or risen only slightly. These data are for incomes rather than earnings; but they exclude capital gains, so changes over time are likely to reflect changes in earnings rather than in investment income. Thomas Piketty and Emmanuel Saez (2006: 204) conclude that in the English-speaking countries 'This rise in top income shares is not due to the revival of top capital incomes, but rather to the very large increases in top wages (especially executive compensation).'

What accounts for the cross-country variation? Hypotheses include market competition, labour power, government partisanship, tax systems, corporate governance practices, the demand for entertainment, athletic, and English-speaking executive talent ('winner-takes-all' markets), and norms (Piketty and Saez 2006; Atkinson and Leigh 2007; Gordon and Dew-Becker 2007; Krugman 2007; Levy and Temin 2007; Reich 2007; Roine, Vlachos, and Waldenström 2007; Scheve and Stasavage 2007; Leigh 2009). Because the data have become available only recently, however, there has been limited systematic analysis as of yet.

## Inequality of employment across households

Earnings vary across individuals, but that is not the only determinant of market (pretransfer-pretax) income differences across households. Also relevant is the distribution of employment across households. Households differ in the number of adults they have, and those with the same number of adults differ in employment. Some households therefore have zero jobs, some have half a job (one part-time job), some one job, some one and a half, some two, and a few more than two.

Differences in individual earnings inequality account for more of the cross-country variation in levels of pretransfer-pretax household income inequality than do various measures that tap employment variation among households (Kenworthy 2008, ch. 3). However, that is due in part to the lack of data on between-household inequality in total hours worked, which is the most appropriate indicator.

Kenworthy (2004, ch. 3) and Kenworthy and Pontusson (2005) find that cross-country variation in changes in pretransfer-pretax household income inequality in the 1980s and 1990s were heavily influenced by differences in employment growth. In countries with rapidly growing employment rates, such as the Netherlands, households that previously had no earners or one earner tended to experience a greater increase in employment than did households that began with more employed members. As a result, market income inequality across households decreased. In countries that experienced employment rate declines, such as Sweden, households beginning with fewer employed members suffered disproportionately, producing a rise in inter-household inequality.

Have institutions affected cross-country variation in employment change? There is an extensive body of research on the impact of institutions such as pay compression, employment protection regulations, government benefit generosity, and taxes on employment performance. Much of it has focused on levels of unemployment or employment (OECD 1994; Nickell and Layard 1999; Scharpf 2000; Blau and Kahn 2002a; Baker et al. 2005; Baccaro and Rei 2007; Bradley and Stephens 2007). Fewer studies have examined changes in employment rates (Iversen and Wren 1998; Esping-Andersen 2000; Kenworthy 2004, 2008; Bassanini and Duval 2006; OECD 2006). The latter have tended to find a negative association across countries between these institutions and employment growth, but one that may be modest in magnitude.

## Redistribution

The third major determinant of the posttransfer-posttax distribution of income is government redistribution. Here too there is clear evidence that institutions have mattered.

A long line of research has demonstrated an association across rich nations between left government and the generosity of welfare states (Korpi 1983; Esping-Andersen 1985; Hicks 1999; Huber and Stephens 2001; Swank 2002; Kwon and Pontusson 2010). For ideological reasons and to better serve the material interests of key constituencies—the working class and the poor—left parties tend to favour more extensive government supports and transfers. Other studies have found a similarly-strong association between corporatist concertation and social policy generosity (Hicks and Swank 1992; Hicks and Kenworthy 1998; Hicks 1999). Corporatist arrangements provide worker organizations with direct input into the policymaking

process and are thus likely to yield policy outputs that better reflect those organizations' preferences for generous social programmes. Over recent decades both left government and corporatism are strongly associated with social policy generosity (web appendix figure A12).

While there is considerable agreement that left government and corporatism have contributed to redistributive generosity, researchers disagree about their relative importance. The two are too closely correlated with one another to include together in cross-country regression analyses (Huber and Stephens 2001). An alternative strategy is to examine over-time patterns. Unfortunately, this offers little help. Consider three countries in which at least one of these two institutions has varied notably over time since the early 1970s: the United Kingdom, Sweden, and Italy (web appendix figure A13). In the United Kingdom cumulative left government increased in the late 1970s and then held constant for most of the 1980s and 1990s, while corporatist concertation declined sharply between 1979 and the early 1990s. The trend in the redistribution measure followed that of cumulative left government. In Sweden, by contrast, the trend in redistribution followed that of corporatist concertation, particularly in the 1990s. In Italy both cumulative left government and corporatist concertation rose slowly over time, and so too did redistributive generosity.

After increasing steadily for several decades, in the 1980s or 1990s redistributive generosity levelled off or began to decrease in a number of countries. How useful are government partisanship and corporatism in explaining cross-country variation in the timing and degree of this retrenchment process? Studies have focused on the impact of partisanship, with some suggesting a continuing role and others finding little evidence of such an impact (Hicks 1999; Huber and Stephens 2001; Pierson 2001; Swank 2002; Korpi and Palme 2003; Allan and Scruggs 2004; Hicks and Zorn 2005; Kwon and Pontusson 2010).

## Summary: Institutions and inequality

Posttransfer-posttax household income inequality is influenced by the distribution of earnings across employed individuals, the distribution of employment across households, and government redistribution. Institutions appear to play a role in accounting for cross-country variation in each of these.

There are two key issues with respect to earnings inequality: the gap among the bulk of the population (often measured with the P90/P10 ratio) and the earnings of those at the very top. Wage bargaining arrangements clearly matter in understanding cross-country differences in the former. Because comparative data on the latter have become available so recently, we have far less understanding of it.

High low-end wages, strong employment protection regulations, generous government benefits, and high payroll and consumption taxes help to reduce inequality

in some respects. But by impeding employment growth, they may hinder reduction of inequality of employment across households.

Cross-national differences in redistribution have been heavily influenced by government partisanship and corporatist concertation, though researchers disagree about the relative importance of each and about their continuing relevance.

## CONCLUSION

We have extensive theorizing about the influence of institutions and institutional configurations on national wealth, but little empirical support. There has been less theorization of the effect of institutions on inequality, but the empirical record offers much more support for the hypothesized effects. That does not end the story, of course. Empirical analyses, including those in this chapter, may have missed something; and patterns in coming years may differ from those of the past several decades. But that is my take on where we stand at the moment.

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