What Can Okun Teach Polanyi? Efficiency, Regulation and Equality in the OECD

11088 words (inc. notes & appendix)

Introduction

Policymakers, pundits, and even political economists, are much enamored by the notion of 'trade-offs.' That is, while we may seek more of good 'X' to satisfy our desires, doing so necessarily implies a diminution in our consumption (or production) of good 'Y'. For example, one of the most famous trade-offs of the post war era was the Philips curve, which purported to show an inverse relationship between the rate of change in money wages and prices (more prosaically, unemployment versus inflation) (Philips 1958). Lower unemployment necessarily implied a trade-off in terms of higher prices. It should give us pause then that as soon as the Philips curve was declared an immutable fact of life, the curve, and the trade-off it implied, collapsed (Friedman 1975/1991).[1]

In this regard, one particular trade-off seems particularly hard to shake-off. A little over thirty years ago, Arthur Okun's well known book *Equality and Efficiency: The Big Tradeoff* argued that "efficiency is bought at the cost of inequalities in income and wealth." (Okun 1975: 51). In Okun's view, societies simply had to choose between an efficient economy and an egalitarian society: "in an economy that is based primarily on private enterprise, public efforts to promote equality represent a deliberate interference with the results generated by the market-place, and they are rarely costless" (pp.4-5). If equality undermines incentives, or if pro-equality policies distort market allocation, economic performance can only be improved at the expense of a less equitable distribution of income.

To some extent, Okun's trade-off represents the antithesis to Karl Polanyi's view of the relationship between markets and society where the more embedded

markets are in society the better the outcomes they produce (Polanyi 1944). Indeed, as later Polanyian scholars have argued, regulating the market to produce greater equality through processes of decommodification (Ruggie 1982, Esping Anderson 1990) is the virtue to be applauded, not the vice to be avoided, since it may well compliment rather than retard efficiency as a trade-in rather than a trade-off. Interestingly, Okun seems to agree insofar as he identifies Polanyi as "his teacher" and gives more than qualified support to Polanyi's position (Okun 1975:12-13). How then can both positions, the trade-off and the trade-in, be correct?

We argue that Okun can teach his old teacher something; not all forms of market embeddedness are created equal. We also argue that we can learn something more general from both Okun and Polanyi about the relationship between equality and efficiency to the extent that we take them to be simultaneous truths. That is, as our empirical analysis (below) demonstrates, there is a world where equality trades-off against efficiency; primarily Anglo-America. Yet to identify that world, econometrically speaking, you need to leave every OECD country with greater level of market regulation than Germany out of the equation. There is also a world of trade-ins, primarily the Scandinavian and Northern European states, that stand in contrast to Okun's thesis. Finally, there is everyone else, from Mexico to Italy to Turkey, that neither trades-off nor trades-in, and where inequality and inefficiency have unfortunately, a positive and reinforcing relationship.

To get there we examine how different ways of embedding economic activity in society via forms of regulation produces different combinations of efficiency and equality. Where regulatory frameworks are minimally market-conforming, an

efficiency-equality trade-off seems to function to the extent that where regulation permits greater competition and more unhindered operation of the price mechanism, there exists higher inequality. Such regulations are in turn associated with less de-commodifying welfare arrangements and higher inequality, while more constraining regulations are accompanied by more decommodification and lower inequality. Below a certain threshold however, the restrictiveness of market regulation becomes associated with *greater* inequality. In this less market-friendly world, regulation embeds economic activity within an existing set of social institutions that decommodify, but also entrench inequalities that are not generated by competitive markets themselves.

To refine our earlier three-fold distinction, we identify *market liberal* regulatory frameworks that promote competitive markets without decommodifying institutions; *embedded liberal* regulations that allow markets to work efficiently, but within the framework of a broad commitment to decommodification and equality; and *embedded illiberalism*, where regulations hinder markets in favor of powerful social groups, and where decommodification undermines both efficiency and equality. In sum, what matters is not the quantity of regulation, but its quality, how it is embedded in other institutional frameworks, and how it produces this troika of outcomes.

Why We Don't Know This Already

Revisiting the scope conditions of Okun's trade off is important because it has, implicitly and explicitly, informed much of the debate around the relative economic performances of the United States and other Anglo countries on the one hand, and continental Western Europe on the other (for contemporary discussions of this trade-off

see Tanzi and Schuknecht 2000, Alesina and Glaeser 2004, Alesina and Giavazzi 2006). Discussion of economic performance in the public arena has often contrasted successful market liberal models, where economic efficiency is achieved at the expense of high inequality, to embedded forms of capitalism where efficiency is traded off for greater equality. Yet the equality/efficiency trade-off has been far from universally accepted (Pontusson 2005, Kenworthy and Pontusson 2005). There is a substantial economic literature, for instance, that highlights the negative consequences of high levels of inequality for economic growth (Alesina and Rodrik 1994, Acemoglu and Robinson 2002), a literature in welfare economics that models some of the (for some counterintuitive) pro-efficiency consequences of welfare states (see for example Barr 2001, Mirrlees 2006), and a similarly prominent political economy tradition which describes how such as centralized corporatist wage bargaining can have both egalitarian and pro-growth effects (Calmfors and Driffill 1988, Garrett 1998, Golden, Wallerstein and Lange 1999, Iverson 2001, 2005, Swenson 2002, Pontusson 2005, Mares 2006).[2]

Indeed, much of the literature on the welfare state has taken as its starting point a challenge to the trade-off thesis by examining the benign, or even roundly positive, economic effects of generous welfare provision (see for example Blank 2002; Lindert 2003, 2004; Kenworthy 2004 and 2008, Scruggs and Allan 2006a, 2006b). In the world of policy, European elites have recently become enamoured with the Danish 'flexicurity' model, which combines generous welfare protection with very liberal labor laws (Sapir *et al* 2004, Sapir 2006, European Commission 2007). In short, there is strong evidence of the sustainability of embedded liberalism, where both efficiency and equality are combined.

Yet there is much that this literature still misses. Much of it focuses on taxes and transfers as the main challenge to a pure market allocation of resources. Rather less attention has been paid to how markets are regulated. Yet regulation has important implications for efficiency and equality. Governments regulate labor markets in ways that can increase or decrease job security, regulate product markets in ways that ease or hinder competition, and regulate financial markets to varying degrees of restrictiveness. The focus on regulation is important because, just like welfare institutions, laws and rules embed markets and entrench patterns of commodification and decommodification. Regulation determines the degree to which prices are free to allocate resources in markets, and the extent to which market access and competition are possible. Measuring social spending does not tell the whole story about how capitalism is embedded in society.

And Why It Matters…

Liberalization, the freeing of markets from the supposedly heavy burden of market regulation and legalistic restrictions, has been an influential policy prescription for enhancing economic efficiency and growth. International institutions such as the World Bank, the IMF, the OECD and the European Union have all exhorted advanced industrial countries to lighten the regulatory load on economic activity, freeing up markets from distortions and restrictions (Djankov *et al* 2002, Conway *et al* 2005).

In recent years, those same institutions have begun to generate large amounts of data monitoring the degree to which these recommendations have been followed, making it possible to measure economic efficiency not just in terms of outputs such as

productivity, growth and employment, but also in terms of the institutional environment in which economic activity takes place. This article uses data from a variety of sources to assess how the degree to which markets are constrained by government regulations relates to levels of inequality in 28 OECD countries.

Although it is well documented that high spending welfare states in Northern Europe tend to have low levels of inequality and poverty (Stephens et al 1999, Rueda and Pontusson 2000, Pontusson *et al* 2002, Alesina and Glaeser 2004, Pontusson 2005, Swank 2005, Scruggs and Allan 2006b, OECD 2008), little has been written about how welfare spending and inequality relate to market regulation. As a result, it is often assumed that countries are arrayed on a single dimension, conflating these three variables: high spending welfare states (embedded liberalism) with high equality and strong market regulation at one end, less generous welfare states (disembedded or market liberalism) with freer markets and higher inequality at the other.

What we find instead is that distinct patterns of government intervention and market regulation produce a variety of outcomes. There is neither a linear nor a positive relationship between less regulated markets and inequality; the degree of embeddedness does not neatly predict distributional outcomes. Instead we find that there are different kinds of embeddedness with quite different effects for efficiency and equality. Our findings are based on both quantitative analysis and supporting qualitative accounts of three different examples of welfare capitalism, in which the interaction between regulation, social spending and equality are examined in more nuanced terms. The next section presents the quantitative evidence, and is followed by the three case studies and the conclusion.

Measuring Market Embeddedness: Regulation and Economic Efficiency in the OECD

Okun's book focuses largely on state ownership of firms, progressive taxation and redistribution as challenges to market efficiency. However the effects of regulation on how markets work is a parallel theme in economics (Stigler 1971, Peltzman 1976, Tanzi 2000, Conway *et al* 2005, more recently, Shleifer 2010). For most economists, regulation distorts markets by constraining competition and therefore undermining the efficient allocation of resources. By interfering with price signals regulation prevents market participants from recognizing where higher returns are to be found, such that resources will not flow to their most productive use. In this view, the less regulation, the more efficient the market, and the greater the resulting prosperity. For many economic historians, sociologists and political scientists however, this view is based on a misunderstanding of the ways in which markets are embedded in social institutions (Polanyi 1957). That is, regulations do not distort markets but make them possible (Vogel 1996). In practice, and this is implicitly acknowledged in much of the empirical research discussed here. Regulation is conceptualized qualitatively, distinguishing between 'liberal' or 'market-conforming' regulation, which facilitates the operation of the price mechanism, and 'statist' or 'restrictive' regulation, which seeks to distort, manipulate, or suppress price signals.

We draw on data on market regulation from three main sources: the OECD, the World Bank, and the Fraser Institute (see Appendix for details). These data provide a number of measures of the extent to which advanced industrial states intervene in markets by regulating, channeling and constraining economic activity. We restrict our attention to 28 OECD countries using cross-sectional data (a longitudinal analysis is not possible given the absence of an adequate time series for most of the data used here). We present some

simple descriptive statistics, with bivariate correlations for illustrative purposes, and then carry out a cross-sectional regression analysis which, given the small number of observations, remains exploratory in nature (see Shalev 2007, Kenworthy 2007 for discussion of appropriate strategies for quantitative analysis with small samples).

The first step in this analysis is to develop a broad measure of the extent to which competitive markets are constrained by heavy regulation. Less regulated countries enjoy non-intrusive regulation, an efficient bureaucracy administering rules and procedures, and open, rather than protected, markets where the price mechanism is the primary method of resource allocation. To do this we carried out a principal components analysis on a range of measures of market regulation. It is worth mentioning that the research programs and institutions generating this data strongly advocate a prescriptive approach in which government intervention in markets is on the whole seen as inimical to efficiency. All variables were transformed so that higher values implied heavier regulation and government intervention (less efficiency, in Okun's terms). Our principal components analysis generates a regression factor score that we use as an overall measure of market regulation. Low scores indicate lower and high scores indicate heavier regulation (see Figure One).

(Figure One About Here)

Figure One maps levels of market regulation in the OECD, and yields both predictable and some less obvious findings. Whilst it is no surprise to find New Zealand, Canada, the US and the UK, which have enthusiastically adopted the

deregulation agenda, at the light regulation end of the scale, it is significant that egalitarian Denmark has light regulation, and the other Nordic social democracies Sweden and Finland are also in the less intrusively regulated half of the sample. At the other end of the scale, Mexico, Turkey, Central Eastern and Southern European countries have negative scores reflecting their 'statist' tradition of heavy government intervention in the economy (on statism see Schmidt 2002), whilst Germany, Austria and France also rank lower. In the middle we find Belgium, the Netherlands, and Norway, as well as Japan. Elsewhere, state intervention through complex bureaucracy, rules and regulations tends to be greater.

The disaggregated data for specific areas of regulation show what this means in practice. Analysis of product markets, labor markets and financial markets confirms that in many policy areas the OECD countries are divided between more 'liberal' political economies were economic activity faces lighter regulation, and more 'statist' political economies where regulation is heavier. For example, data on barriers to market entry confirm this picture. In Figure Two, Mexico, Turkey and most of the Catholic European countries have a high number of administrative procedures required to open a business, whilst the English speaking democracies and the Nordic social democracies have the fewest. Figure Three shows that the Anglo countries have the lightest labour regulation, the Catholic European countries tend to have more rigid employment rules, while the other continental and Northern European countries are arrayed at various points on the scale. Finally, in financial market regulation (Figure Four) most of the Anglo countries and Northern Europe have lower barriers to competition in the banking sector, whilst Central and Eastern Europe has higher barriers.

(Figures Two, Three, Four and Five About Here)

The key point to take away from this analysis is that countries tend to exhibit reasonably consistent patterns of market regulation (the factor score predicts over 40% of the variation across cases). The factor analysis presented in Figure One reveals a dimension of regulatory intervention in economic activity, from more 'liberal' states in which regulation tends to be lighter, to more 'statist' political economies in which restrictive regulation and government intervention seek to control market outcomes. Countries with highly regulated access to product markets tend also to have highly regulated financial markets, and more rigid labor legislation. This has ramifications for economic efficiency, as Figure Five shows. Although there is not a linear relationship, the more heavily regulated economies also have generally lower productivity (expressed as labor output per hour). Some regulatory interventions do then embed and constrain markets and obstruct the free operation of the price mechanism, with clear efficiency costs (Arnold *et al* 2008). The next section examines how this kind of market regulation relates to inequality across the OECD countries.

What Does This Mean For Inequality?

While the economics literature on regulation has shown rather more concern for its effects on efficiency, there is still a large political economy literature on different patterns of redistribution, which focuses on governments' social expenditures, usually as a proportion of GDP, and in some cases by assessing the redistributive or decommodifying

effect of social policy at the micro level (Scruggs and Allan 2006a and b, Kenworthy and Pontusson 2005). However the relationship between market regulation, social policy, and distributive outcomes has not received such close attention. Here we assess whether the different types of government intervention we identify above has any systematic relationship to inequality.

Although measuring regulatory interventionism presents a number of conceptual and operational difficulties, there is less controversy over how to measure inequality: a range of broadly accepted measures is available. Here we focus specifically on inequality of income, and draw on OECD data on income distribution, using Gini coefficients as our main measure of income inequality, although other measures produce very similar results. Figures Six to Nine present scatterplots of income inequality and various measures of government interference and intervention in the market.

(Figures Six to Nine About Here)

Figure Six – which plots income inequality against our regulation factor score reveals a positive (and statistically significant at the 95% level) relationship between more regulated markets and income inequality. Although the regression line is not linear and there is a good deal of dispersion around it, the sign is clearly inconsistent with the notion of an efficiency/equality trade-off because the most regulated countries have the highest inequality. However, it is also clear that the least regulated economies present higher inequality than those with average levels of regulation, and in fact there is a point beyond which reducing regulation is associated with increased inequality. The relationship is thus

U-shaped with high inequality found in countries with the most and the least government interference in the market. Countries with heavy regulation such as Mexico, Turkey and Southern Europe have high inequality, but so do the USA, New Zealand, the UK and Canada, which regulate the market with a light touch. A neat efficiency-equality correlation therefore does not hold, but neither is efficiency associated with inequality. How are we to interpret this?

In Figures Seven through Nine we examine the data to see whether government interference of different kinds produces different effects on inequality. The regulation of entry variable in Figure Seven, measured as the number of bureaucratic steps required to open a business, correlates very closely with the regulation factor score ($r= .864, p=.000$), and although fewer procedures are associated with lower inequality, some cases of low regulation have quite high inequality. This suggests that having an administrative and regulatory apparatus capable of guaranteeing potential participants open access to the market – a pre-requisite of a free market economy – is consistent with a range of distributive outcomes, but hindering access is always associated with higher inequality. A broad commitment to equality of access to business activity is therefore a necessary but insufficient condition for income equality.

Figures Eight and Nine present a similar, but less consistent, picture. Stricter labor market regulation (Figure Eight) also has a broadly curvilinear relationship with inequality: limited regulation is mostly (but not exclusively) associated with higher inequality, as the Anglo countries have less restrictive employment laws, whilst some of the countries with the most regulated labor markets (Italy, Portugal, Turkey and Mexico) also have very high inequality. However, there are a number of more regulated countries with lower inequality,

such as France and Germany. In Figure Nine, we see that financial market regulation has a more complicated relationship with inequality: the measure chosen here – regulation of prudential conduct in the banking sector (de Serres *et al* 2003) – reveals a broadly linear relationship, with the more regulated cases mostly having higher inequality, again undermining the notion of an equality/efficiency trade-off as conceived by Okun. However other measures of financial regulation reveal a more mixed picture.

Questioning the Trade Off

Despite the common impression then, there is little evidence for any universal equality-efficiency trade-off. The curvilinear relationship we observe in the scatterplots suggests a more nuanced relationship, which we examine further through cross-sectional regression analysis. In Table One we estimate levels of inequality with our measure of government intervention and regulation, controlling for a range of variables commonly associated with inequality. The small *n* restricts our use of control variables so models are estimated with different combinations of controls. Welfare institutions are a plausible explanation for levels of inequality, and here we use OECD social expenditure as a share of GDP as a measure of welfare generosity[3]. Similarly, an extensive literature discusses the importance of centralized wage bargaining arrangements for compressing wages and maintaining low levels of income inequality; we use the measure of centralization collected by Traxler, Blaschke and Kittel (2001) (this measure does not cover the whole OECD, so the models in which it is included suffer a drop in degrees of freedom)[4].

The regression reveals a consistently positive – and in most specifications, statistically significant - relationship between restrictive market regulation and inequality.

The strongest predictor is, unsurprisingly, the level of social expenditure, which is consistently negatively related to inequality. Centralized wage bargaining and population are also negatively related to inequality, but their inclusion in the model does not hide the effect of the main variables. A quadratic function of regulation is statistically significant in Model 8, suggesting that its positive effect on inequality is stronger at high and low values, whilst more central values of regulation are consistent with lower inequality.

This analysis offers insights into how different degrees of regulatory intervention in the market relate to distributive outcomes. First of all it strengthens the evidence against a *negative* relationship between equality and efficiency, as proposed by Okun's trade-off thesis. Controlling for social expenditure, freer, less regulated markets are actually associated with *lower* inequality. Lower levels of market regulation are found in both Anglo countries – which have lower levels of social spending and higher inequality - and in Northern European countries – which have higher levels of social spending and lower inequality. The heaviest burden of regulation is found in the poorer OECD states such as Turkey and Mexico, as well as in the Southern European democracies, all of which have high levels of inequality (spectacularly so in the case of Turkey and Mexico). Intermediate levels of regulation, as found in continental Europe, are mostly associated with quite low inequality.

The absence of a longitudinal dimension in this analysis is an important limitation, and we cannot rule out the possibility this is a misleading snapshot of a dynamic process in which, for example, efficiency resulting from recent economic reforms may have a negative effect on equality with a lag, which would not be captured by this static analysis. The data measuring regulation does not go back far enough in time to assess the extent to

which our measure reflects recent changes that have not had time to feed through into downward pressure on equality. However we do have reliable – albeit incomplete – time series data on income inequality, which means that we can at least assess the extent to which inequality has changed over time in our sample. If we were to find that inequality clearly increased more quickly over time in 'efficient' countries, this would still lend some support to the trade-off thesis, since it would indicate the possibility that efficiency had been achieved at the expense of a trend towards higher inequality, suggesting the likely unsustainability of the currently positive equality/efficiency relationship. Figure Ten charts the change in Gini coefficients over the past 20 years using OECD data.

(Figure Ten About Here)

This evidence is supportive of the picture provided by the cross-sectional analysis. As the OECD reports (2008) there has been a general upwards tendency in inequality amongst advanced nations, and an upwards drift can be detected throughout the sample. However, there is no evidence of greater increases in inequality in less regulated countries than in more regulated ones. Although given the absence of time series data we must be cautious about our findings, we nonetheless find no positive empirical support for the trade-off thesis here. Of course, this does not mean that such evidence will not appear in the future. First, recent liberalizing reforms undertaken by some Western European countries may bring about changes in levels of inequality in the future. Second, the strong impact of encompassing labor market institutions on inequality is well documented (Wallerstein 1999). Countries lacking such institutions may find that liberalizing reforms

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have stronger effects on levels of inequality than on countries with such institutions. Third, inequality can have an independent causal effect on welfare arrangements. There is, for instance, some evidence that high levels of inequality make it less likely that income support programs will be established (Moene and Wallerstein 2003). Fourth, although the recent global financial crisis will hit Western European countries in diverging ways, those most exposed in terms of housing and personal indebtedness can be expected to fare the worst (Blyth 2008). As such, we can probably expect to see the already unequal economies become more unequal still, thus reinforcing current trends.[5] However, these notes of caution remain speculative; recent experience offers no evidence of an inherently conflictual relationship between efficiency and equality.

Testing the Trade-Off: Efficiency and Equality Revisited

So far we have established three things: that there are observable patterns of regulation across the OECD, with some countries tending to regulate financial, product and labour markets more and others less; that these patterns are not indicative of a trade off between free markets and equality *per se*; and that countries with low inequality have intermediate to low levels of regulation, whilst heavier regulation is associated with high inequality. The task is now to make sense of these findings. Specifically, what do they tell us about the relationship between economic efficiency and equality?

The evidence above suggests that efficiency and equality do trade off, but only under certain conditions: when markets are 'disembedded' by extensive liberalization and the removal of protective, market-constraining regulation, and where extensive redistribution through money transfers is shunned. In these countries (mainly the English

speaking democracies), regulation reflects a commitment to freer markets irrespective of the distributive consequences. But the choice is not simply to embed or not to embed the market. Markets can be embedded in quite different ways and with different consequences for efficiency and equality. In countries where markets are heavily regulated, both efficiency and equality are difficult to achieve because regulatory arrangements entrench privileges and rent-seeking opportunities that systematically favor some groups over others, whilst burdening the economy with deadweight costs. This is the case in Southern Europe, Mexico, and some parts of East-Central Europe. Where regulation is more market-conforming but markets are embedded through extensive equalizing social transfers, greater efficiency is achieved alongside high equality. In these countries (most of continental and Northern Europe), equality is a key value shared by broad social forces and regulations remain mostly in the intermediate range, reflecting a commitment to allowing market mechanisms to function in a way consistent with social objectives.

The rest of this paper therefore illustrates how different patterns of market regulation and welfare provision interact in three short case studies, examining representative cases of each of the three efficiency/equality combinations identified above. The case of Sweden, the paradigmatic Nordic welfare state, is taken first to show how broadly liberal market regulation and equality coexist: we refer to this as 'embedded liberalism.' Next we discuss the United Kingdom, a case of 'market liberalism' where deregulatory zeal in search of greater efficiency has trumped any commitment to equality (with questionable effects on efficiency). Finally, we illustrate 'embedded illiberalism' through the case of Italy, to show how a state can intervene

heavily in the market economy through market constraining regulation that entrenches inequality whilst also compromising efficiency.

Equality Plus Efficiency: The Scandinavian Social Democratic Model

Despite its well-known welfare model based on generous universalistic benefits, Sweden is also an open economy with a tradition of relatively liberal market regulation. It has also undergone a range of quite radical liberalizing measures over the past two decades. The well documented post-war economic model developed by the Swedish social democrats (SAP) combined government intervention in the labor market to secure both the equalizing of wages and the mobility of labor, whilst developing a welfare state that compensated for the disruptions generated by Sweden's exposure to world markets. Wage compression and redistribution were made compatible with high levels of private profit and investment (Swenson 1989, 2002, Steinmo 1996, Blyth 2002). In short, the market was embedded in such a way as to achieve an efficiency-equality 'trade-in.'

From the early 1990s, Swedish governments adopted structural reform in the areas of pensions, labor markets, and social welfare provision, and the SAP government after 1994 began a program of deregulation and privatization that eventually encompassed postal services, telecommunications, domestic aviation, electricity, and the rail network. Further microeconomic reforms, such as the 1993 competition law that restricted anti-competitive behavior, and incremental changes to labor market regulation to encourage flexibility and part-time work, were made throughout the decade. The fact of these reforms suggests a profound transformation of the Swedish political economy,

while the results of these reforms on Swedish business have been dramatic. Was Sweden, even under a social democratic government, trading in equality for efficiency?

Certainly efficiency seemed to be achieved. Sweden has performed well in international comparison of enterprise demographics. Though enterprise birth rates are marginally higher in the UK than in Sweden, the death rate of enterprises in LMEs such as the UK is almost double that of Sweden (Schror 2004: 3). This picture is further enhanced by international comparison of labor productivity and unit labor costs. Looking at output per employed person in manufacturing, and taking 1990 as the baseline and 2008 as the terminus, LME's such as the US and the UK racked up impressive gains in productivity (index values of 57.0 rising to 128.4 for the US, and 70.8 rising to 125.9 for the UK), but Sweden more than tripled its labor productivity in constant dollar terms over the same period to an index value of 140.1 from a base of 46.7.[6] Unit labor costs in manufacturing tell an even more interesting story. Again, taking 1990 as the baseline and 2008 as the terminus, we find that while the US had some success in reducing unit labor costs (from 109.3 to 96.4), the UK's unit labor costs actually increased from (from 98.9 to 128.0), whilst Sweden's plummeted one third in real terms over the same decade (from 193.1 to 135.2).[7]

Given these institutional, policy, and performance transformations, it is tempting to conclude that the Swedish model, and its emphasis on equality, has gone out the window. Equality must have been traded off given these efficiency enhancements? Yet we have seen that Sweden's Gini coefficient has hardly moved in the past three decades. Therefore, in this case at least, the issue of structural reform engendering Okun's trade-off, as is commonly painted, is in fact much more complicated than the simple

'liberalization -> inequality' equation would allow. Reforms in Sweden have certainly occurred. On pensions and unemployment benefits, while changes were made to replacement rates, overall "the generosity of Swedish social security was on average the same in 1998 as in 1980" (Lindbom 2003: 178). Spending on private health and retirement certainly has increased, as have means tested benefits, which implies more markets and less equality. As Lindbom argues, increased expenditure on social assistance is not the result of less universalism and more liberalism. Rather, it is the opposite case where benefits cover more people who need more assistance and who were not part of the older, narrower, regime (Lindbom 2003: 182).

Furthermore, while taxes were cut by a conservative government in the early 1990s, they were raised again in the latter half of the decade when the regressive nature of the 1990 reforms became apparent (Steinmo 2003: 40). Once Sweden recovered from the collapse of the early 1990s and began to run a surplus in 1998, as well as paying down the national debt, the government increased spending on child support and other benefits. As Prime Minister Persson said to the SAP Congress in Sundsvall the previous year "healthcare, social services and schooling come before tax cuts,"[8] and indeed they did, consistently.

In sum, while there has been structural transformation in the Swedish welfare state, it is simply not the case that equality has been sacrificed for efficiency. Despite efficiency enhancing measures being implemented from early 1990s on, Sweden remains a social democracy with a large public sector, generous social benefits and public services, and low levels of inequality. As Steinmo puts it "the Swedish model (which comprises corporatist decision-making institutions, solidaristic wage policies,

and perhaps even the 'politics of compromise') may well be dead. But the ambition and political support for a largely egalitarian polity with a very large welfare state and the taxes to support it live on quite healthily today." (Steinmo 2003: 42). Contrary to expectations then, marketization and liberalization, which undeniably has occurred in Sweden, does not have to lead to greater inequality. Okun's trade off seems conspicuous by its absence. Instead Sweden illustrates the sustainability of the 'embedded liberal' model, in which market regulation allows efficient resource allocation, whilst affording labor due protection, and is accompanied by extensive egalitarian social transfers and services to maximize equality.

Efficiency at the Expense of Equality: The Anglo 'Market Liberal' Model

In contrast to Sweden, the United Kingdom is the clearest example in Western Europe of a society that has embraced liberalizing structural reforms whilst neglecting to cushion the effects of liberalization on the social fabric. Like in other English-speaking democracies, regulation has given primacy to market prices as the key allocation mechanism, and governments have developed only limited, residual welfare provision (Esping-Andersen 1990) whilst business interests have received generous fiscal treatment. As a result, labor in Britain is less decommodified than in the rest of Western Europe, and inequality is much higher. Yet this seeming conformation of Okun's trade off upon less than secure foundations, as the UK's economic performance is not unambiguously better than that of its European neighbors.

The Thatcher and Major governments of the 1980s and 1990s carried out important liberalizing reforms in financial, product and labor markets. In the financial

sector, an already lightly regulated banking and investment industry was deregulated further, fuelling a significant expansion of financial services, which became, until very recently, the motor of the British economy. In product markets, reforms to the retail sector and the Thatcher governments' enthusiastic championing of the European single market contributed to further liberalization and the phenomenal growth of the service sector. As Coates (2002: 160) put it, so many people worked in banking and retailing by the year 2000 that Britain had genuinely become, by then, "a nation of shopkeepers."

In labor markets, significant reforms had a direct and lasting effect on social cohesion. A series of legislative measures to undermine the position of trade unions, in combination with a rapid and extensive restructuring of the British industrial sector, skewed industrial relations in favor of employers and reduced the role of collective bargaining in the determination of wages (a case of 'freer markets and more rules' [Vogel 1996], as new laws were required to constrain trade union organizations). All of this occurred against a background of exceptionally rapid deindustrialization. UK manufacturing employment fell from 35 percent of the total labor force in 1960 to just under 12 percent in 2005 (OECD 2005). As Wells has observed, UK manufacturing shed employment at an unprecedented rate. In the 1980-82 recession 27 percent of the 1979 manufacturing labor force disappeared (Wells 1989: 25), and this process continued under New Labour (Matthijs 2006: 22). Reforms to the welfare system moved in a similarly restrictive direction, reducing the real value of welfare benefits, limiting entitlement, and de-indexing the state pension system from inflation.

The consequences of these changes have been far-reaching. On the one hand, proponents of structural reform can point to the United Kingdom's comparatively good

growth performance in the 1990s and early 2000s as evidence of the effectiveness of market-friendly liberalizing measures. In particular, the higher than average percentage of the active population in employment is often attributed to the increased labor market flexibility resulting from the Thatcher reforms (although employment remained lower than in the best performing 'embedded' economies such as Sweden and Denmark). However, labor costs have grown faster than in Sweden (as pointed out above) and labor productivity per hour worked compares unfavorably with the 'embedded liberal' countries of Northern and continental Europe. Strong economic growth in the 1995-2005 period has been followed by a steeper fall in output since 2008 than in most other western countries, the consequence of inefficient resource allocation in the financial sector.

On the other hand, this program of disembedding the market has been accompanied by an extraordinarily rapid increase in income inequality. In 1979, the UK had a Gini coefficient of 0.27, lower than France and only slightly higher than Germany. By 1995 the UK Gini coefficient had reached 0.34, a level matched only by the United States and Italy amongst advanced industrialized nations (LIS 2008). Moreover, as noted above, despite its 'flexibility', UK unit labor costs have actually risen while inequality deepened. Under the New Labour administration of Blair, the picture has changed relatively litle, despite the much lauded 'redistribution by stealth' and welfare reforms the party has undertaken. Shephard (2003: 4) found that income inequality in 2000-2002, after almost a full term of Labour government, was higher than in any other period since 1979, by 2008 inequality had stabilized, but remained almost as high as when Labour was elected in 1997 (Hills *et al* 2010).

The UK shows starkly the potential costs in terms of social inequality and cohesion of an aggressive and uncompromising approach to disembedding markets. Where the Swedish SAP crafted institutions that maintained equality, the Thatcher, Major, and even to a degree the Blair governments have been quite open about not buffering inequality since it is seen to harm 'incentives'. Yet without the kinds of buffers to social inequality present in the embedded liberal countries, such as equalizing public services and pensions, social benefits with high replacement rates, and unionized wage bargaining, liberalizing reforms can cause a rapid deterioration of social cohesion. In the UK, as in the US and other Anglo nations, equality-promoting policies have been perceived as a threat to efficiency, and therefore the search for economic progress has involved dismantling egalitarian institutions such as trade unions and reducing social protection. This case suggests then that Okun's trade-off can be observed, but it tends to apply in countries which lack the institutional arrangements to embed the market in society, and where policymakers see the removal of social protection and the resulting inequality as a intrinsic feature of a market economy.

Inequality and Inefficiency: Embedded Illiberalism in Italy

The Southern European members of the European Union are characterized by heavy regulation of financial, product and labor markets, and more substantial state holdings in the economy than most other European countries: a kind of 'statist' political economy model (see Schmidt 2002, Hopkin 2006, Levy 2006). One of the most interesting features of this particular model of state-market relations is that, despite the apparently 'social' justifications often presented for maintaining state interventions, it has a poor

record in securing social objectives. As our data show, southern Europe, alongside newer members of the OECD like Mexico and Turkey, combine illiberal, market-distorting regulation of markets with high levels of inequality. Here we draw on the Italian case to illustrate the implications of the 'embedded illiberal' model for equality and efficiency. Italy exhibits with remarkable clarity the characteristics of this model, which allows us to bring into sharp relief the potential for particular types of state interventions to have *inegalitarian and inefficient* implications.

The quantitative measures of market regulation analyzed earlier reinforce more qualitative evidence that the Italian economy remains, despite some privatization and supply-side reforms undertaken in the 1990s, very heavily constrained by legalistic state intervention (Signorini 2001, Alesina and Giavazzi 2007). Regulations and backdoor protectionism restrict free competition in a range of sectors, such as city-center retail, travel and transport, public utilities, and housing. Italy also retains a significant – though much reduced - state presence in industrial production and services through state-owned or part-owned companies. These features make Italy one of the least 'marketized' economies in the advanced industrialized world (Giavazzi 2005).

In terms of its product markets Italy has the most restrictive regulation of entry in Western Europe, with complex and bureaucratic procedures for starting new businesses and a variety of regulations restricting entrepreneurs' freedom of action. Examples of this abound of burdensome regulation of markets leading to high prices, low efficiency, and vast monopoly rents for well-positioned market participants (for example, the difficulties of obtaining licenses for pharmacies, or taxi services, which once possessed becomes private assets which can be transferred to family members; see

Giavazzi 2005). Clearly much of this regulation has its roots in longstanding institutional arrangements (related by Djankov *et al* [2002] to factors such as legal origin), and the intricate nature of Italy's legal system stands as a constant through Italy's recent periods of economic growth and stagnation.

Embedding the market through restrictive legislation has high costs, hindering the full development of the service sector, which in comparable western economies has proved the major source of employment growth. It also has distributive consequences, shifting resources towards relatively inefficient parts of the economy with little scope for productivity growth, such as small-scale retail and legal services, which also enjoy tax advantages. In comparison with the UK and Sweden, not only did Italy's unit labor costs *increase* (134.3 to 185.4) from 1990-2008, like the UK, its productivity grew much more slowly (79.6 to 98.9) over the same period.[9] At the same time Italy's Gini coefficient increased from 0.306 in 1986 to 0.346 in 1998 (LIS 2008). In short, product market regulation and associated rent-seeking has anti-competitive as well as inegalitarian consequences, depressing both efficiency and equality.

While Italy has relatively regulated labor markets, some parts of the labor force face a very deregulated environment, in particular the substantial numbers of 'outsiders' (Rueda 2007) - workers in the black and 'grey' economies, as well as increasingly large numbers of new entrants to the labour force dependent on temporary contracts (Sestito 2002, Graziano 2004). This dual labor market ensures that the egalitarian effects of regulation extend only to a comparatively small part of the workforce, leaving overall inequality similar to deregulated labor markets like the United States (Flinn 2002). However, some parts of the labor force are relatively protected both by legalistic

provisions and by practices of collective bargaining, which is reflected in Italy's inflationary levels of wage growth, even during the lean years since the country's entry into EMU. The labor market also promotes both inefficiency and inequity given the inability of collective bargaining (except for short, exceptional periods) to achieve encompassing coverage and secure pay increases consistent with maintaining competitiveness.

Moreover, the job protections offered to the more privileged sectors of the workforce impede labor market adjustment (Esping-Andersen 1996). As Lindert (2006: 247) notes, while such employment protection laws must take some of the blame for European unemployment in general, its seems to be the case that Italy is a place where such effects are particularly strong. Meanwhile, the patchy coverage of unemployment insurance further impedes labor market clearing (see essays in Ferrera 2005). In sum, the structure of the Italian labor market has failed to ensure equitable wage growth or an efficient allocation of resources, contributing to both economic decline and increasing inequality. In contrast to Sweden's egalitarian form of 'big government,' Italy's tradition of state interventionism has become a drag on growth at the same time as it fails to address inequalities.

Italy is certainly the most dramatic case of the failings of the 'statist' model, and it has performed comparative poorly in terms of efficiency and equality even compared to the other 'statist' cases. However, other cases of embedded illiberal economies in Southern Europe share the problems of weak job growth and low overall levels of employment (Bermeo 2000), patchy and excessively selective welfare provision (Ferrera 1998, Boeri 2000, Lynch 2006), and regulatory measures which have the effect

of shielding inefficient producers of goods and services from competition. They also display high levels of economic inequality. In the Italian case in particular, statist policies and institutions appear to combine the 'worst of both worlds' by acting as a drag on efficiency whilst doing little to deal with inequality.

Conclusions

This paper has assessed the relationship between market regulation, efficiency and equality in the advanced democracies of the OECD. We have found that there is little empirical basis for a trade-off between equality and efficiency in contrast to what is commonly believed. Instead, we find that restrictive regulation of markets to suppress competition (embedded illiberalism), and very liberal, pro-market regulation (disembedded liberalism), are both associated with higher inequality. The most egalitarian societies, what we have described here as embedded liberal countries, have more liberal levels of regulation than average, but also higher social spending. In other words, a broad commitment to equality of access to business activity is a necessary but insufficient condition for income equality, but beyond a certain threshold more liberal regulation is associated with lower social spending and higher inequality. Okun is therefore right that disembedded market liberalism achieves economic efficiency at the expense of equality. However, Okun's trade-off thesis does not hold when we consider more embedded forms of capitalism. Per contra, in embedded liberalism both efficiency and equality are possible, whilst in embedded illiberalism neither can be achieved.

This has important implications. First, it suggests that liberalization, within certain parameters, does not have to work against the welfare state. We have shown here that, in

contrast to much of the conventional wisdom, pro-business and market-friendly institutions can coexist with generous welfare provision and tend to be associated with low inequality. This suggests that some of the more doom-laded analyses of the welfare state as unsustainable in a post-industrial global era are missing the point. Liberalization and welfare state retrenchment are two distinct concepts, and distinct outcomes, which need to be measured separately. Put another way, the choice of market regulation and the choice of welfare effort are to an extent orthogonal. Inequality is not an inevitable price to be paid for efficiency, and indeed only those states that were most unequal to begin have became significantly *more unequal* under the pressures of globalization (see Swank 2002, Kenworthy and Pontusson 2005). Other states have been able to sustain liberal patterns of market regulation, whilst intervening in the distribution of income to maintain more equal outcomes. This has echoes of the 'compensation hypothesis' developed by Cameron (1984) to explain the extensive welfare provision in small, open economies.

We can also make one empirical claim quite strongly. Although liberal regulation can be consistent with both high and low inequality, the most obstructive and restrictive regulatory regimes are unambiguously associated with higher inequality. The reasons for this are not clear and require further research. Partly this could be an income effect, since some of the poorer countries in the sample have very high inequality, and they tend to have more heavily regulated markets. However our case study of Italy, a high income country, suggests that regulatory regimes also have an independent effect on redistribution, by entrenching rent-seeking practices that favor some already well-rewarded groups, and by promoting higher levels of corruption which undermine generous welfare provision (see Tanzi 2000). In sum, liberal regulation may or may not reduce inequality, but very

restrictive regulation clearly increases it. More regulated labor markets only help reduce inequality in countries where the broad patterns of market governance are less restrictive. Where they interact with strong restrictions on market entry, for example, inequality tends to be high.

As well as informing policy debates about the social consequences of structural reform, our findings also have analytical implications for the study of contemporary welfare capitalism. In particular, our analysis challenges Hall and Soskice's influential 'varieties of capitalism' framework, with its well-known distinction between liberal and coordinated market economies. By closely examining the ways in which states regulate economic activity, we shed some new light on the institutional arrangements of contemporary capitalism. Rather than a dichotomy between coordinated and liberal market economies, we see important differences between coordinated market economies, some of which are more 'liberal' than others, with the more liberal CMEs enjoying the lowest inequality. This suggests that coordinated capitalism has radically different distributional consequences, depending on the extent to which coordination is achieved through restrictive regulation. Where coordination is underpinned by restrictions on market entry, inequality is higher. Where coordination rests on effective labor market institutions, product and financial markets tend to be more open. The importance of this state intervention through regulation points towards a need to revise the dominant conceptual maps of comparative welfare capitalism.

Okun's trade-off thesis purports to show that inequality is the inevitable price to be paid for economic efficiency. This simplistic view has had an extraordinarily loyal following amongst opinion-makers, and even some academics. However, there is scant

evidence to support it. What Nassim Taleb noted about the hold of Gaussian statistics over us is perhaps germane here, "the ubiquity of the Gaussian is not a property of the world, but a problem in our minds, stemming from the way we look at it" (Taleb 2007: 251). A similar point could be made about 'trade-offs' that may also be things in the mind rather than things in the world.

Notes

[1] Indeed, the 'long-run' Phillips curve for the UK from 1992-2009 was *horizontal*. See the presentation by Anatole Kaletsky at the INET conference, Cambridge, UK, April 9th 2010, available at, http://ineteconomics.org/sites/inet.civicactions.net/files/INETSession1-AnatoleKaletsky.pdf

[2] Similarly, the Varieties of Capitalism literature (Hall and Soskice 2001) argues that various institutional arrangements for coordination between market actors can create efficiency and redistribute rewards fairly (for critical discussion see Thatcher, Hancké and Rhodes 2007).

[3] We recognize the limitation of social expenditure as a measure of welfare generosity, but it has the merit of being available for all the cases we study here over the relevant period. The decommodification data collected by Scruggs and Allan (2006a, 2006b) are perhaps a better measure of welfare generosity, but do not include Greece, Mexico, Portugal, South Korea, Spain, or Turkey, further reducing our already limited degrees of freedom.

[4] An alternative measure of the dependent variable (90/10 ratios) was also used as a robustness check. Data and full results available at http://personal.lse.ac.uk/hopkin/data

[5] Although there is an interesting possibility that the UK may become more equal over time now that the great inequality generator of the City of London and its bonuses has dried up.

[6] Data available at U.S. Department of Labor, Bureau of Labor Statistics, ftp://ftp.bls.gov/pub/special.requests/ForeignLabor/prodsuppt02.txt accessed June 30th 2010 4:37pm.

[7] Data available at U.S. Department of Labor, Bureau of Labor Statistics, ftp://ftp.bls.gov/pub/special.requests/ForeignLabor/prodsuppt09.txt accessed June 30th 2010 4:39pm.

[8] Quoted in Keesings Record of World Events on line edition. http://keesings.gvpi.net/keesings/lpext.dll/KRWE/krwe-23594/krwe-24472/krwe-24706/krwe-24798/krwe-24799. Accessed August 17th 2005.

[9] Data available at U.S. Department of Labor, Bureau of Labor Statistics, ftp://ftp.bls.gov/pub/special.requests/ForeignLabor/prodsuppt02.txt and ftp://ftp.bls.gov/pub/special.requests/ForeignLabor/prodsuppt09.txt

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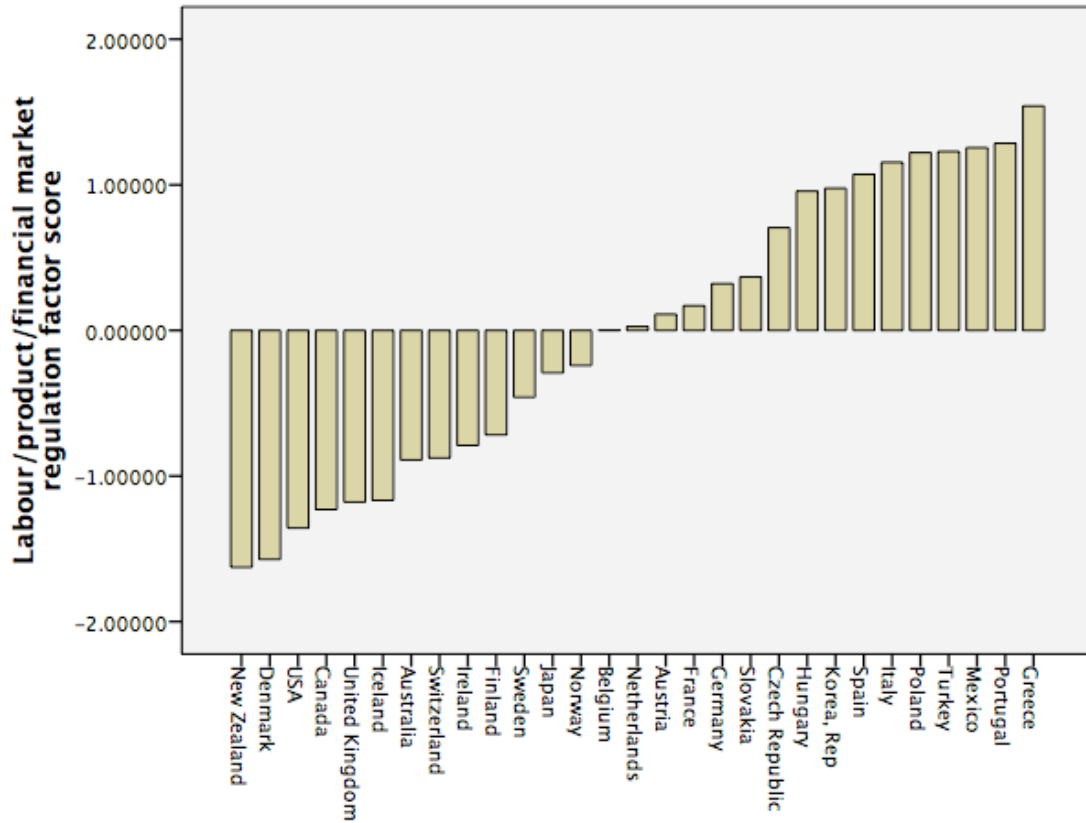
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Figure One

Labour, Product and Financial Market Regulation, OECD mid-2000s

Explanation: Regression Factor Scores (one factor extracted, 41.258% of total variance, initial Eigenvalue 7.014) from Principal Component Analysis using 17 variables measuring regulatory approaches to product, financial and labour markets. High scores imply more restrictive regulation. Further details in Appendix.

Table One

Regression Analysis: Determinants of Income Inequality (Gini coefficients, OECD, mid-2000s)

Independent Variable	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Regulation factor score	0.021*	0.033**	0.014	0.026**	0.033**	0.028*	0.043***	0.027**
	0.010	*0.010*	*0.008*	*0.008*	*0.011*	*0.010*	*0.010*	*0.008*
Regulation factor score sq							0.019*	0.020*
							0.008	*0.008*
Social Expenditure			-0.005**	-0.004**	-0.007 ***	-0.008 ***	-0.007 ***	-0.003*
			0.001	*0.001*	*0.001*	*0.002*	*0.001*	*0.001*
Wage Coordination					-0.014*	-0.016*	-0.010	
					0.005	*0.006*	*0.005*	
Population		3.562*		2.434		1.793*		2.453*
		0.000		*0.000*		*0.000*		*0.000*
Ethnic Fragmentation		0.048		0.028		-0.032		0.028
		0.043		*0.035*		*0.28*		*0.031*
Electoral System		-0.012		-0.011		0.010		-0.011
		0.010		*0.008*		*0.009*		*0.007*
Constant	0.313***	0.319***	0.409***	0.409***	0.527***	0.523***	0.499***	0.370***
	0.010	*0.028*	*0.030*	*0.039*	*0.040*	*0.050*	*0.038*	*0.038*
p	0.042	0.004	0.002	0.001	0.000	0.001	0.000	0.000
n	28	26	27	25	17	17	17	25
R^2	0.144	0.495	0.386	0.643	0.719	0.831	0.795	0.728
Adj. R^2	0.112	0.403	0.337	0.554	0.659	0.738	0.732	0.642
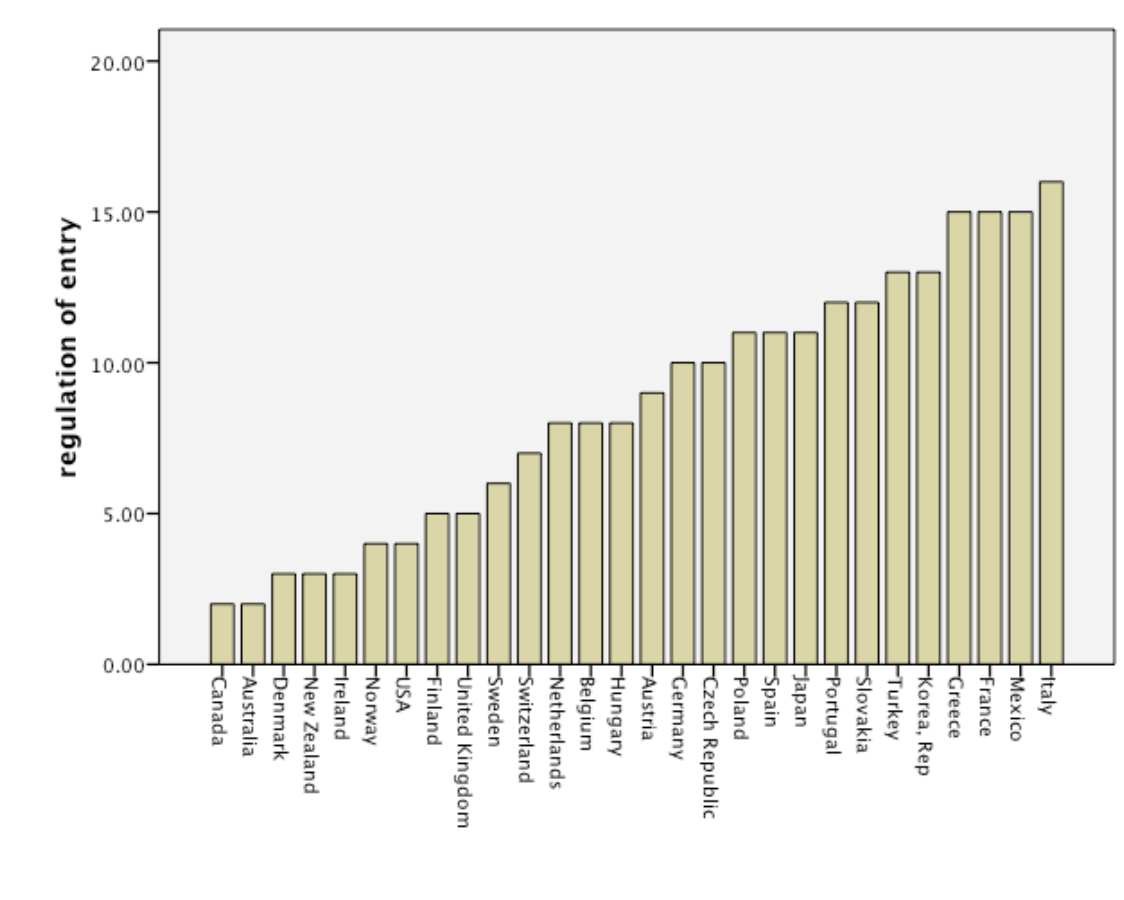
Standard errors reported in italics under unstandardized coefficients
***, **, and * denote significance at the 99.9% ($p = >0.001$), 99% ($p = >0.01$), and 95% (>0.05) levels respectively.
For variable descriptions see appendix.

Figure Two
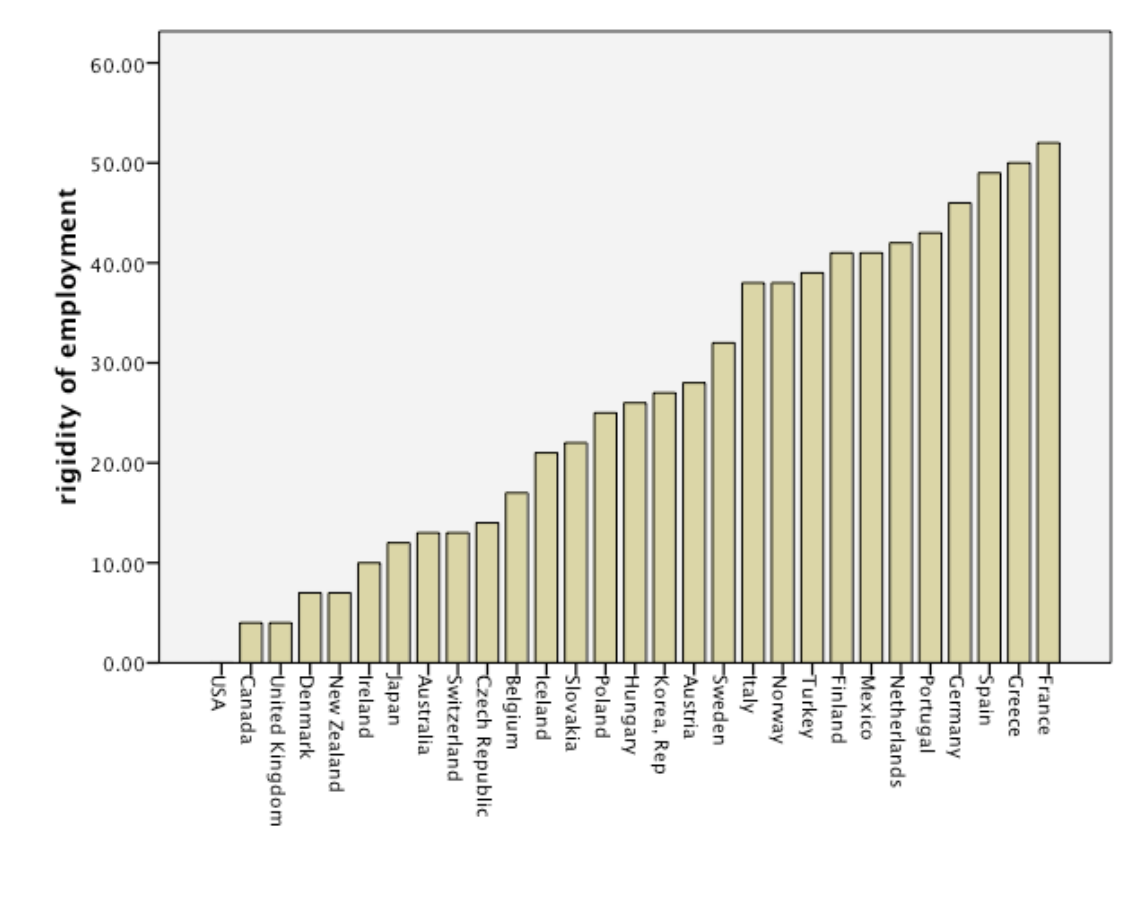
Regulation of Entry, OECD Countries early 2000s

Regulation of entry = Number of Procedures for Opening a Business, in Djankov *et al*

2002.

Figure Three
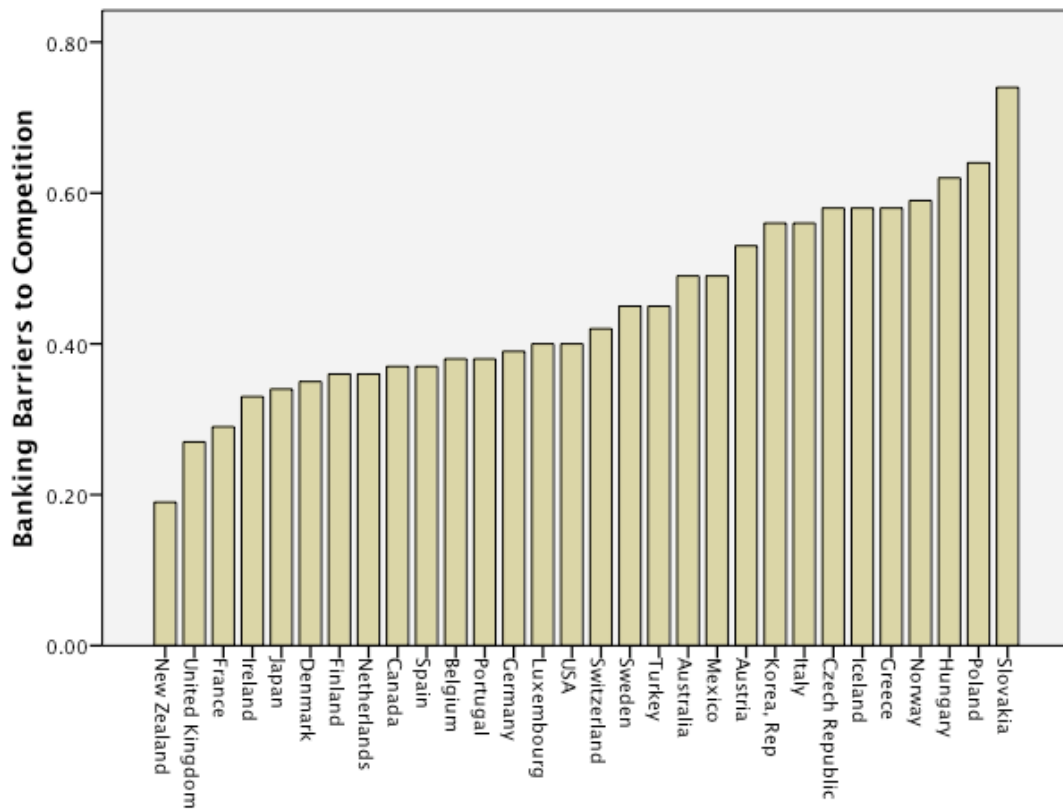
Labour Market Regulation, OECD Countries early 2000s

Labour market regulation = World Bank Employment Rigidity Index, 2005

Figure Four
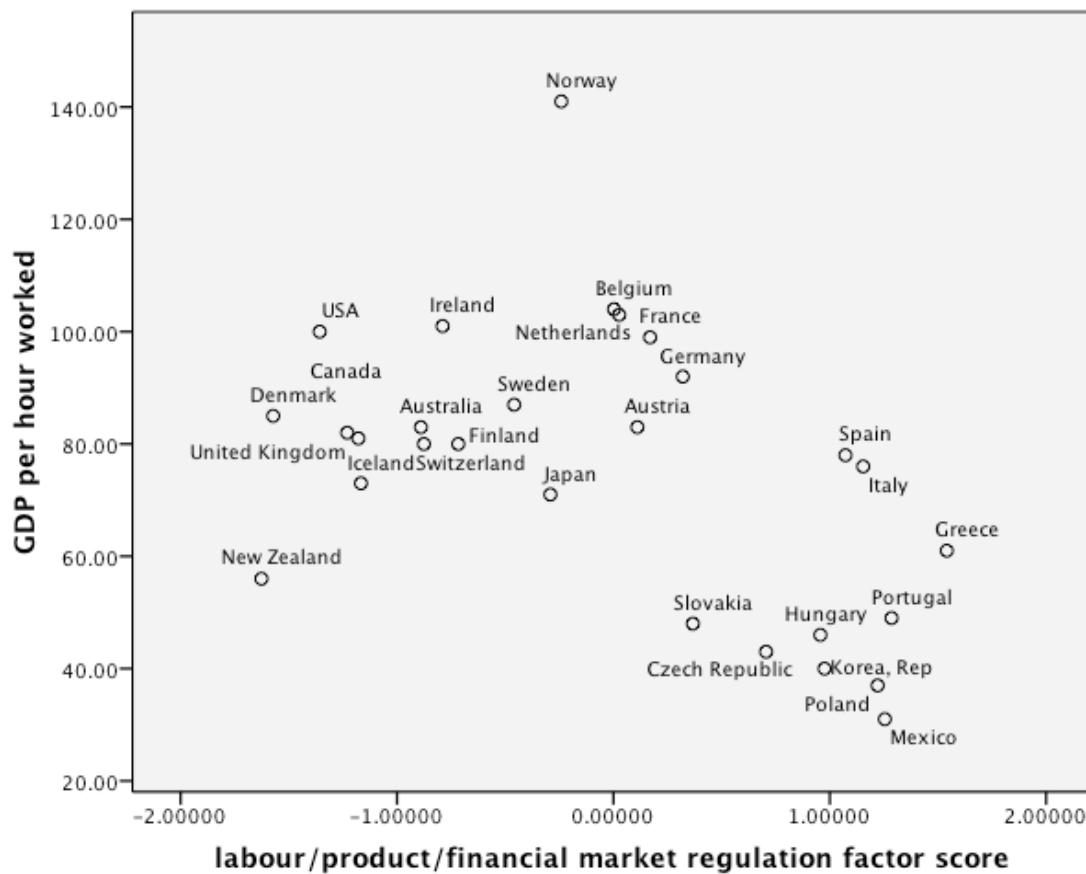
Financial Market Regulation, OECD Countries early 2000s

Financial market regulation = Banking Barriers to Competition OECD/WB 2003 (de Serres et al 2004, inverted)

Figure Five
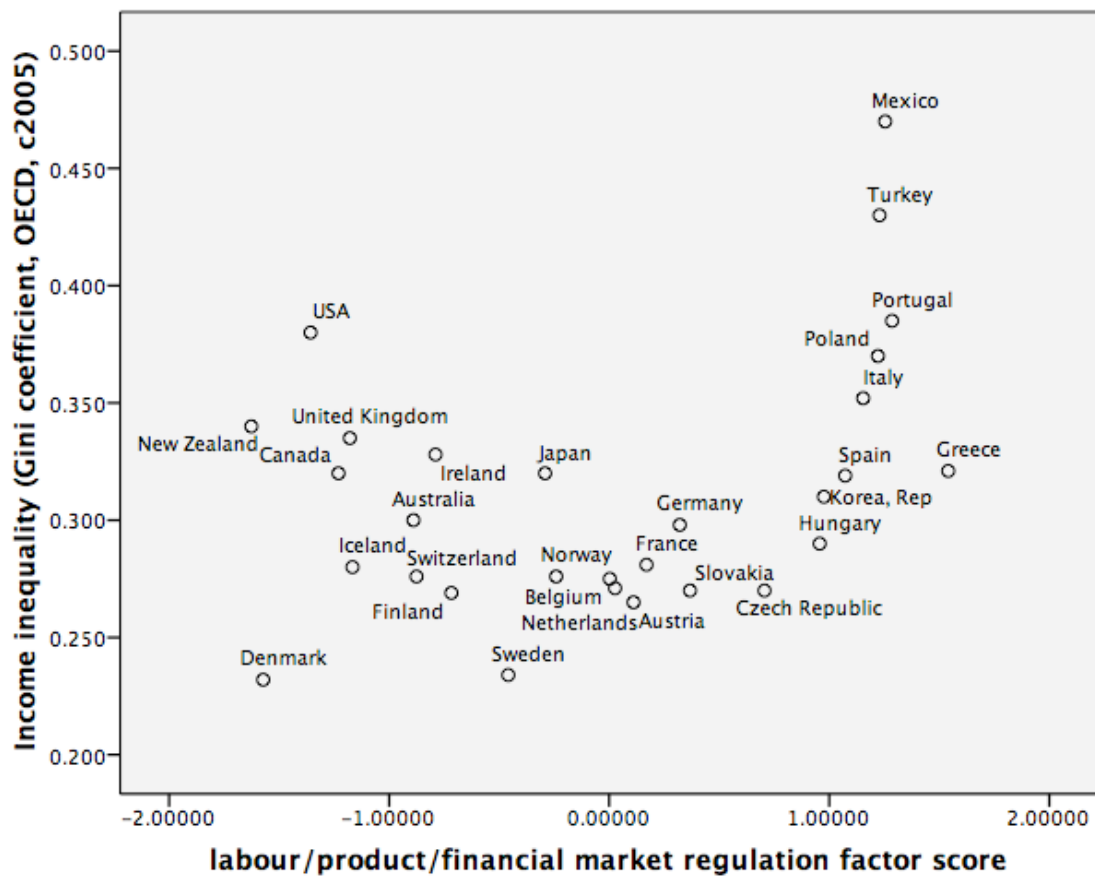
Labour, Product and Financial Market Regulation and Labour Productivity, OECD mid-2000s

Source: regulation factor score as in Figure One; labour productivity as GDP per hour worked, standardized to US = 100, 2005 (OECD).

Figure Six
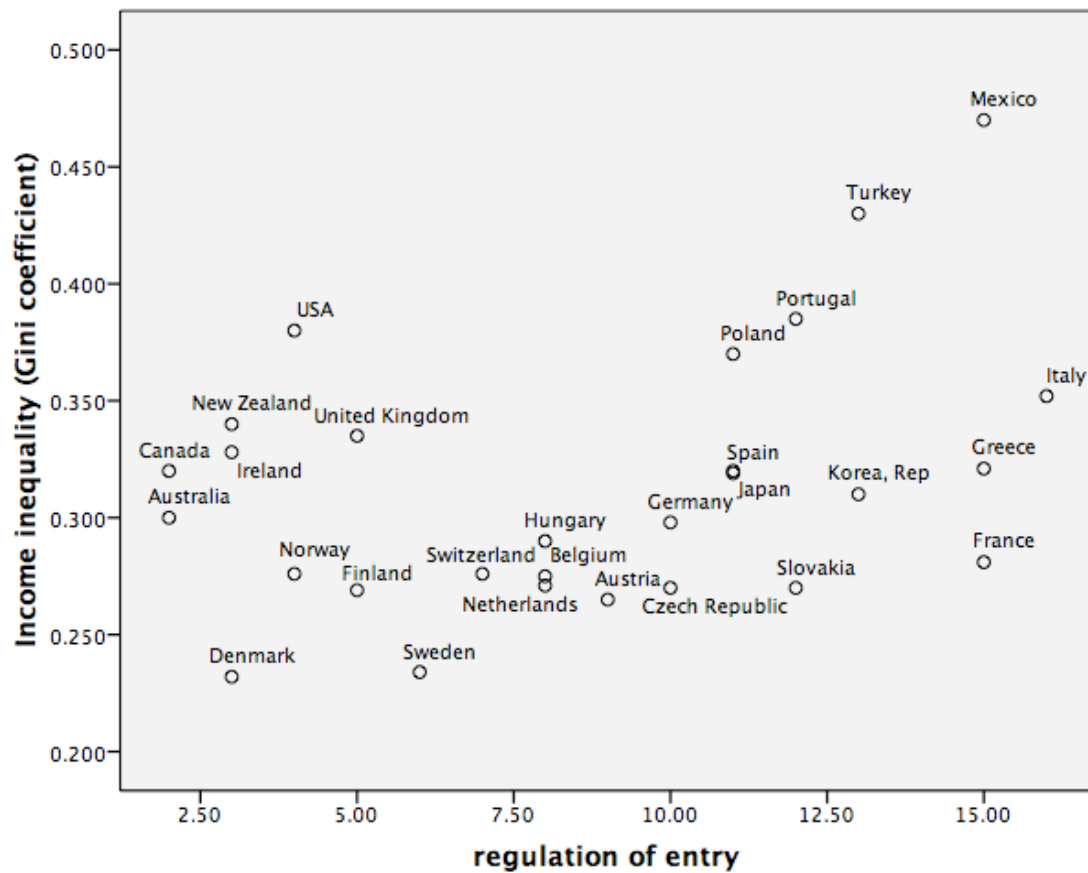
Regulation Factor Score and Income Inequality (Gini and 90/10 ratio), OECD Countries, Mid-2000s

Sources: regulation as in Figure One; equality, OECD.

Figure Seven
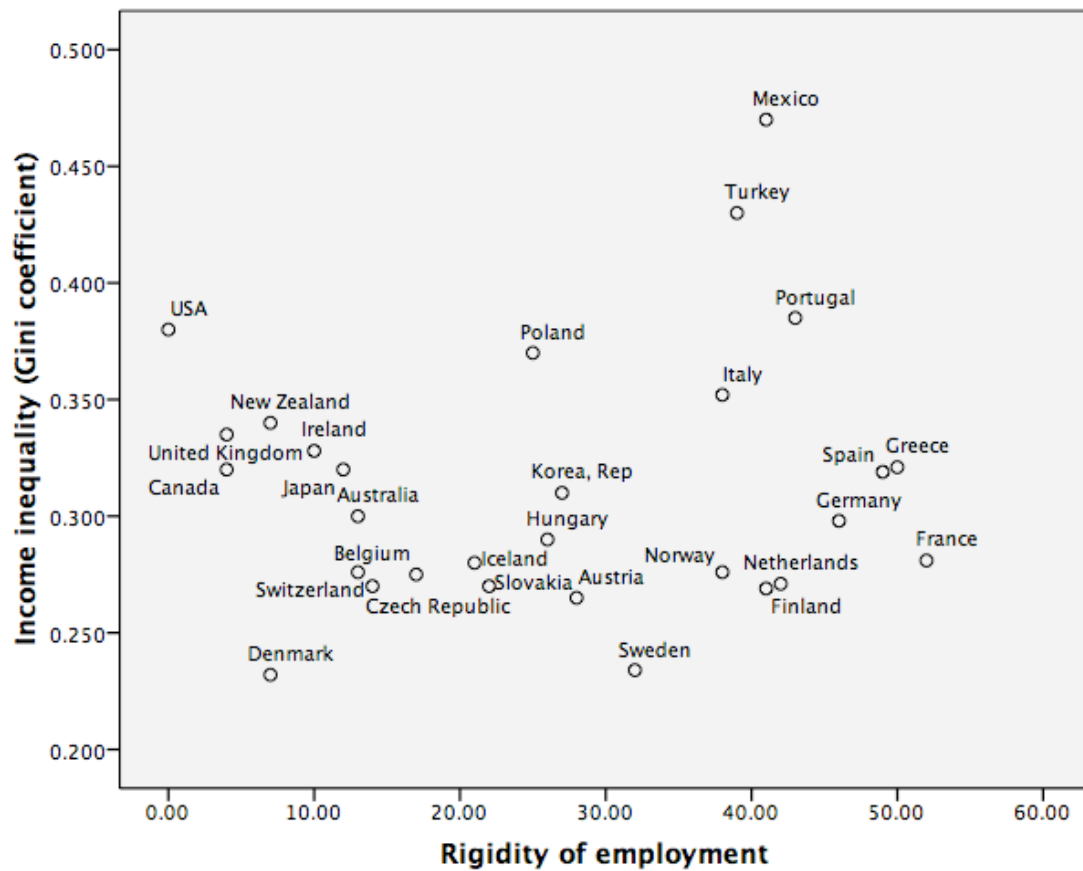
Regulation of Entry and Income Inequality, OECD Countries early 2000s

Regulation of entry = Number of Procedures for Opening a Business, in Djankov *et al* 2002; Income inequality, Gini coefficient, OECD (2009).

Figure Eight
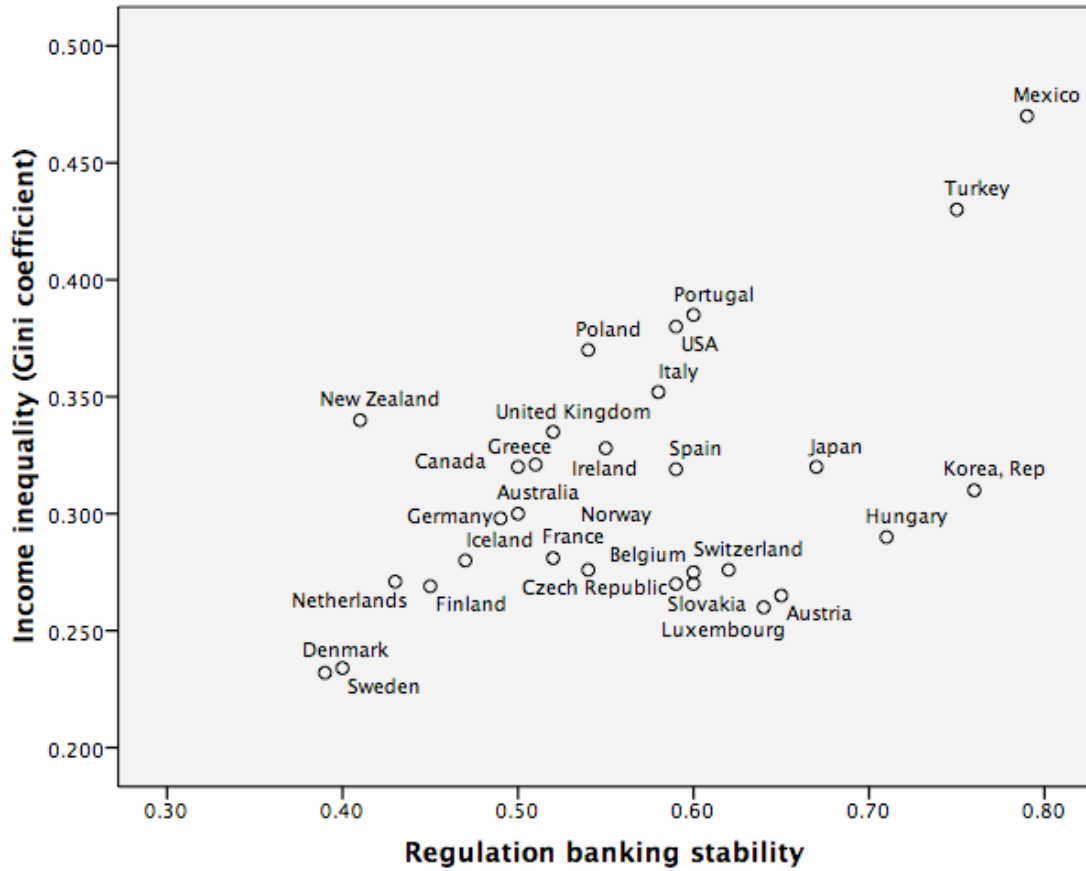
Labour Market Regulation and Income Inequality, OECD Countries early 2000s

Labour market regulation = World Bank Employment Rigidity Index, 2005; Income inequality, Gini coefficient, OECD (2009).

Figure Nine
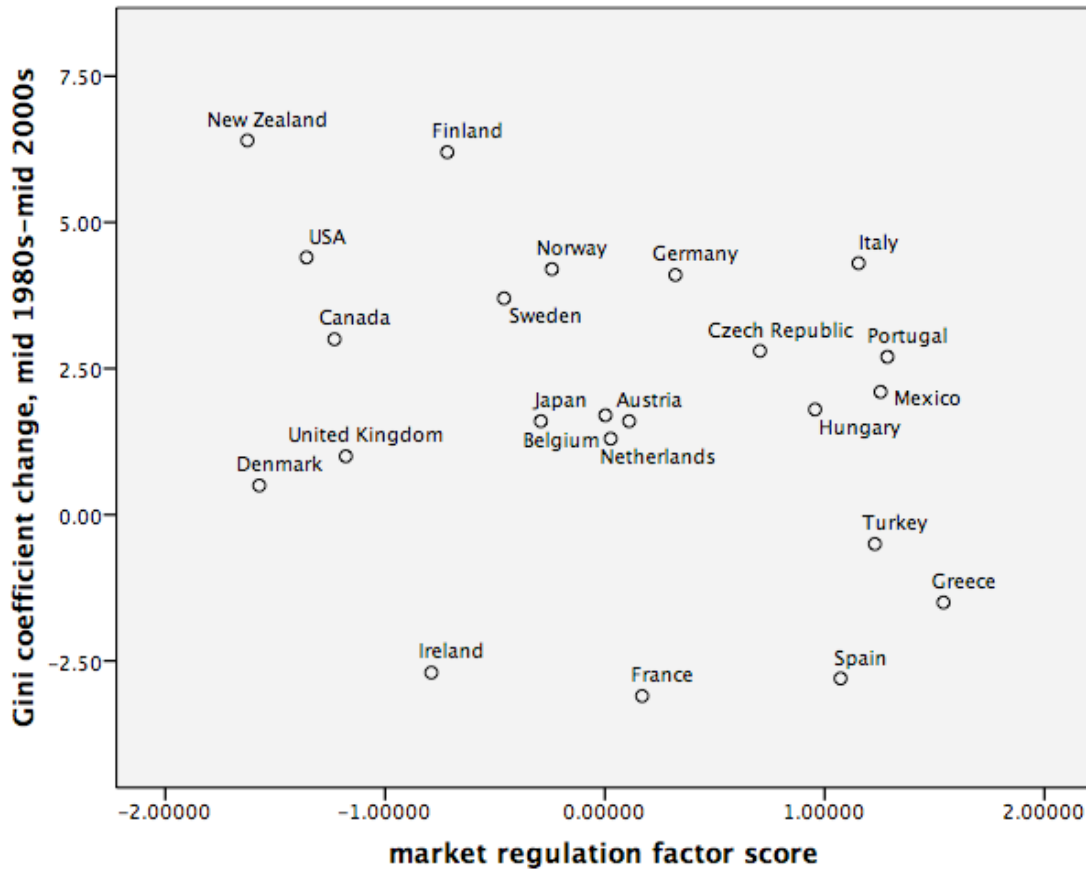
Financial Market Regulation and Income Inequality, OECD Countries early 2000s

Financial market regulation = Banking Barriers to Competition OECD/WB 2003 (de Serres et al 2004, inverted); Income inequality, Gini coefficient, OECD (2009).

Figure Ten

Market Regulation and Change in Income Inequality, OECD Countries 1980s-2000s

Market regulation = regulation factor score (see above); Income inequality change, change in Gini coefficient mid-1980s to mid-2000s, OECD (2009).

Appendix

Principal Components Analysis:

Twenty variables included measuring regulatory approaches to product, financial and labour markets. Extraction method: principal components, select one factor. Factor scores method: regression (one factor extracted, 42 % of total variance). High scores imply more 'restrictive' regulation, lower scores more 'liberal' regulation. Full results available on request.

Variables (Higher scores imply higher efficiency)

Fraser Institute 2005 - Data for 2005 generated by Fraser Institute, (http://www.fraserinstitute.ca/; http://www.freetheworld.com/). See Gwartney and Lawson *et al* 2007 (Ch.1) for a full description.

Labour Market Regulation (Area 5B score)

Credit Market Regulation (Area 5A score)

Competition Domestic Banking (Area 5Aii score)

Entry of New Business 2005 (Area 5Cii)

OECD/World Bank database 2003 (de Serres *et al* 2006):

Banking Barriers to Competition

Banking Stability OECD/WB 2003 (degree of restriction of bank lending)

Banking Regulation OECD/WB 2003

World Bank Institute 2006

Data for 2004-5 generated by the World Banks' *Doing Business* project, (http://www.doingbusiness.org/). See World Bank (2008) for a full description of data. This variable records the number of administrative procedures required in order to open a new business. For methodological details see the *Doing Business* project website (http://www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx).

Starting Business Procedures (number)

Starting Business Time (days)

Starting Business Cost (% of income per capita)

Starting Business Min. capital (% of income per capita)

Dealing with licences number of procedures

Dealing with licences time (days)

Dealing with licences time (cost)

Difficulty of Hiring Index

Rigidity of Hours Index

Difficulty of Firing Index

Firing Costs

Rigidity of Employment Index

Global competitiveness index 2005-6 Pillar One: Institutions

The 'institutions' score for each country case from the World Economic Forum's *Global Competitiveness Report 2005-2006*. (Lopez-Claros, Porter, and Schwab 2006). The report generates a Global Competitiveness Index measuring 'the set of institutions, policies and factors that determine the level of productivity of a country'. For methodological details

see the WEF website (http://www.gcr.weforum.org/). We exclude competitiveness variables which do not tap the concept of efficiency adopted in this article. Higher scores imply greater efficiency.

Global competitiveness index 2005-6 Pillar Six: Market Efficiency

The market efficiency score taps the level of market competition and distortions caused by government intervention in product, financial and labour markets. Higher scores imply greater efficiency.

Other Data

Income Inequality

Gini coefficients and 90/10 ratios calculated from the OECD income distribution survey for around 2005 (OECD 2008).

Logged Population

The log n of population in 2005.

Ethnic Fragmentation

A measure of ethnic diversity within a state around 2000 (score taken from Montalvo and Reynard-Querol 2005).

Electoral System

Matt Golder's classification of electoral systems (majoritarian, PR, multi-member, and

mixed); see Golder 2005.