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**Economic Globalization and the Welfare State in  
Affluent Democracies, 1975-1998\***

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## **Summary**

Prior scholarship is sharply divided on how or if globalization influences welfare states. Globalization's effects may be positive causing expansion, negative triggering crisis and reduction, curvilinear contributing to convergence, or insignificant. We bring new evidence to bear on this crucial debate with a pooled time series analysis of two measures of the welfare state and 16 indicators of economic globalization for 17 affluent democracies from 1975 to 1998. The analysis suggests that: (1) state-of-the-art welfare state models warrant revision in the globalization era; (2) most indicators of economic globalization do not have significant effects; (3) the few significant globalization effects are in different directions and often inconsistent with extant theories; (4) the globalization effects are far smaller than the effects of domestic political and economic factors; and (5) these effects are not systematically different for liberal vs. non-liberal welfare state regimes, European vs. non-European countries, or with four alternative dependent variables. Increased globalization and a modest convergence of the welfare state have occurred, but globalization does not unambiguously cause welfare state expansion, crisis and reduction or convergence.

## **Zusammenfassung**

Bisherige Befunde der sozialwissenschaftlichen Forschung zum kausalen Verhältnis von ‚Globalisierung‘ und Wohlfahrtsstaat sind nicht eindeutig. Danach kann Globalisierung positive Effekte haben und zu einem Ausbau an Wohlfahrtsstaatlichkeit führen, eine Krise des Wohlfahrtsstaates oder Leistungsreduktionen herbeiführen, kurvilineare Wirkungen aufweisen und zu Konvergenz beitragen, als auch vollkommen insignifikant sein. Unsere gepoolte Zeitreihenanalyse von Wohlfahrtsstaatlichkeit und ‚Globalisierung‘ in 17 reichen Demokratien (1975-1998) hat folgende Befunde zu Tage gefördert: (1) im Zeitalter der Globalisierung erscheinen bestehende Wohlfahrtsstaatsmodelle revisionsbedürftig; (2) die Mehrzahl der ökonomischen Globalisierungsindikatoren weist keine signifikanten Effekte auf; (3) die wenigen signifikanten Effekte zeigen in unterschiedliche Richtungen und stimmen häufig nicht mit bestehenden theoretischen Annahmen überein; (4) die Globalisierungseffekte sind deutlich kleiner als die Effekte binnenpolitischer Variablen und ökonomischer Faktoren; (5) diese Effekte unterscheiden sich in ‚liberalen‘ und ‚nicht-liberalen‘ Wohlfahrtsregimen bzw. europäischen und nicht-europäischen Ländern nicht systematisch von einander. Im Analysezeitraum können wir sowohl einen Anstieg der verschiedenen Globalisierungsindikatoren sowie eine moderate Konvergenz der verschiedenen Wohlfahrtsstaaten konstatieren. Jedoch kann der Prozess der ‚Globalisierung‘ nicht eindeutig als kausale Ursache für die unterschiedlichen Entwicklungsrichtungen in den verschiedenen Wohlfahrtsstaaten identifiziert werden.

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## 1 Introduction

One of the most pressing social science controversies regards the relationship between globalization and the state, and especially economic globalization and the welfare state. Scholars, public figures, analysts and theorists have all contributed to an extensive and rapidly growing literature. Among many, a consensus is emerging that globalization has at least *some* type of relationship with the welfare state – even if the exact nature of that relationship remains unclear. Fundamentally, this consensus suggests that analysts need to consider the global economy when studying what have traditionally been considered domestic political phenomena (Berger 2000; Evans 1997; Guillén 2001). As Milner and Keohane (1996:3) remark, “We can no longer understand politics within countries – what we still conventionally call ‘domestic’ politics – without comprehending the nature of the linkages between national economies and the world economy, and changes in such linkages.” Despite this emerging consensus, many social scientists remain skeptical that globalization really is a significant influence on welfare states.

Prior scholarship offers several different theories of how economic globalization will or will not affect the welfare state. Theories of positive, negative, curvilinear or insignificant effects can be contrasted with each other, and may even be irreconcilable. Our goal is to empirically scrutinize these contrasting theories. We analyze pooled time series data for 17 affluent democracies from 1975 to 1998. We concentrate on two conventional, general measures of the welfare state: government expenditures and social security transfers.<sup>1</sup> We measure globalization with sixteen different indicators, reflecting different images of advantage, openness or threat. Hence, our goal is to examine comprehensively the possible effects of different facets of economic globalization for two general measures of the welfare state. To our knowledge, the extant literature does not contain a similar comprehensive study that assesses different theories of globalization and the welfare state in this most recent historical period.

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<sup>1</sup> Of course, we recognize that these two measures of the welfare state are not perfect or ultimate indicators. There is certainly more research to be done on other aspects of the welfare state as well. However, as we argue below, these measures may be two of the more central and important indicators. Thus, these measures certainly warrant empirical attention. Also, we examine four alternative dependent variables in our sensitivity analyses.

## 2 Theoretical Background

Images of globalization vary widely (Guillén 2001). We restrict our focus to economic globalization (henceforth simply referred to as “globalization”). We conceptualize globalization as the intensification of international economic exchange and the label for the contemporary era of international economic integration. Thus, globalization involves the current economic environment shaping welfare states and the heightening of concrete economic exchanges between countries.

Four theories of the relationship between globalization and the welfare state have emerged.<sup>2</sup> First, globalization may cause an expansion of the welfare state. Second, globalization may generate a crisis and retrenchment of the welfare state. Third, globalization may have curvilinear effects and contribute to a convergence of welfare states. Fourth, warranting attention are skeptics that contend that globalization does not affect the welfare state.

### 2.1 Globalization as Expansion

Following Cameron’s (1978) finding of a positive association between international economic openness and state size, many scholars have claimed that globalization expands the welfare state. The small West European countries especially, as well as others, historically have been very outwardly oriented, engaging in high levels of international economic exchange (Katzenstein 1985). In turn, countries experienced greater volatility and uncertainty with fluctuations in international finance and trade. To stabilize the economic security of their citizens in this context, these countries developed generous welfare programs and corporatist labor market institutions. Garrett (1998a) contends that globalization generates new constituencies for leftist parties among those made insecure by globalization, and in turn, leftist parties have greater incentives to expand the welfare state. Welfare states are expanded to compensate those harmed by economic openness, and to stabilize the economic resources of those experiencing the volatility of global markets (Rieger and Leibfried 2003; Seeleib-Kaiser 2001). Consistent with these arguments, many

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<sup>2</sup> Our characterization of the literature seems consistent with how Hicks (1999: 204) divides “the openness literature” into compensation (positive) and competitiveness (negative) perspectives, as well as his findings that openness has curvilinear effects and his acknowledgement that some view globalization as insignificant.



quantitative studies have found that globalization has linear positive effects on welfare states (Garrett 1996, 1998b; Rodrik 1997, 1998). Hicks (1999), for example, finds that trade openness significantly increases social welfare expenditures. Garrett and Mitchell (2001) show that foreign direct investment openness is associated with greater taxation.

## 2.2 Globalization as Crisis and Reduction

In recent years, social scientists (Albrow 1997; Kennedy 1993; Ohmae 1990, 1995; Robinson 2004; Waters 1995), humanities scholars (Hardt and Negri 2001), and journalists (Friedman 1999; Greider 1997; Yergin and Stanislaw 1998) have claimed that globalization is causing a crisis and reduction of the welfare state. On one level, many contend that globalization marks the era of welfare state crisis (Cable 1995; Esping-Anderson 1996; Huber and Stephens 2000, 2001a, 2001b; Strange 1995).<sup>3</sup> Sometime after the 1973 Oil Crisis and the end of fixed exchange rates, and fully taking hold in the 1980s, welfare states have undergone retrenchment (Clayton and Pontusson 1998; Hicks 1999: 215). The era of globalization necessitates a decline of the welfare state, as states lose sovereignty over welfare state politics in the face of the overwhelming global economy (Boswell and Chase-Dunn 1999; Castells 1996; Cerny 1994; Harvey 1995; Held et al. 1999; Sassen 1996; Strange 1996, 1997; Stryker 1998). States undergo neoliberal restructuring in order to foster flexibility and competitiveness in a new, more globalized economy (Brenner 2002; Jessop 2002; Standing 1999). For example, Stephens and his colleagues (1999: 191) explain, “Overall, then, by the late 1980s and early 1990s a picture of widespread cuts emerges, in some cases of considerable magnitude.” Huber and Stephens (2001b: 123) summarize, “We find that roll-backs and ‘restructurings’ in welfare state programmes have been a universal phenomenon in the past two decades.” Due to increasing globalization pressures, generous welfare states are uncompetitive (Alesina and Perotti 1997; Lindbeck 1995). After Sweden’s economic crisis in the 1990s, Freeman and his colleagues (1997) characterized its encompassing welfare state as “nearly impossible for the country to afford” (p. 11), “unsustainable” (p. 25), and “dysfunctional” (p. 27). Relatedly, expanding

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<sup>3</sup> Language of “crisis” has been widespread. Huber and Stephens (2001a) titled their recent book “The Development and Crisis of the Welfare State.” In Hicks’ (1999) recent book, chapter titles include “The Growth and Crisis of the Welfare State” and “Course and Causes of the Crisis.” In Sassoon’s (1996) monumental history of the 20<sup>th</sup> century West European Left, “Crisis” is the title of the third and final book. Sassoon (1996: 772) states, “To a large extent, the contemporary crisis of [West European] socialism is a by-product of the globalization of capitalism.”

international economic arrangements cultivate an environment where welfare states are not likely to thrive. For example, the continuing integration and expansion of the European Union has coincided with a movement for a thinner welfare state (Hooghe and Marks 1999). As Pierson and Leibfried (1995: 35) predict about European Union social policy, “The widespread expectation is that policies, if they are enacted at all, will take the form of standards set at or near those of the least generous members of the Union.”

On another level, scholars contend globalization is a major cause of welfare state reduction (Rhodes 1996; Scharpf 1991; Scholte 1997; Schwartz 2001; Strange 1995, 1996, 1997). Globalization triggers a race to the bottom, where workers are recommodified, citizens have less social security, and capital dominates the state (Mishra 1999). International economic competition and integration force governments to scale back expensive welfare programs (Cable 1995; Frieden and Rogowski 1996; Huber and Stephens 2001a: 227; Schulze and Ursprung 1999; Steinmo 1994). Volatile capital mobility in unregulated global markets reduces the capacity of states to intervene in economies (Evans 1997: 66; Milner and Keohane 1996). Gilbert (2002: 38) concludes, “With the emergence of a well-integrated global market, however, national policymakers are increasingly being disciplined, and spending on redistributive social benefits is squeezed by the mobility of capital to go where production costs are low.” Consequently, other states are forced to follow suit, and all retrench towards welfare state residualism. For example, Garrett and Mitchell (2001) find that trade and financial openness are associated with less government spending. Swank and Steinmo (2002) conclude that globalization significantly changes the politics of taxation. Burgoon (2001) shows that trade openness reduces several measures of the welfare state. Stephens and his colleagues (1999: 164) explain, “It is by now a widely accepted view that the sea change in advanced capitalist economies of the past two decades, above all the increasing internationalization of these economies, have constricted the policy options of the governments of these societies.” Huber and Stephens (2001a: 11) write, “Since the 1980s, different dimensions of globalization have weakened both the economic and political bases of generous welfare states.”

### **2.3 Globalization as Curvilinear Effects and Convergence**

Most recently, a new line of thinking has emerged from empirical research on globalization and the welfare state. A number of scholars contend that globalization has a curvilinear relationship with the welfare state (Hicks 1999; Rodrik 1997). At lower initial levels,

globalization originally triggered an expansion of the welfare state with economic development. But at higher levels, globalization can cause contractions in mature, generous, already developed welfare states (Huber and Stephens 2001a: 237, 240; Rodrik 1997; Seeleib-Kaiser 2001). This theory unites the first two views of globalization's effects on the welfare state. In quantitative welfare state models, globalization has a positive effect in the linear main term, but has a negative effect in the squared term. For example, Hicks (1999: 213) finds that investment openness has such a curvilinear effect on social welfare expenditures, and provides some evidence that trade openness has a similar relationship.<sup>4</sup> Relatedly, Allan and Scruggs (2004) find that while trade openness had no effect on unemployment replacement rates before the welfare state development peak – a point they qualitatively define in each country in the early 1980s – trade openness has a significant negative effect after welfare states have matured.

Curvilinear effects, to a certain extent, suggest a link between globalization and welfare state convergence (Greve 1996:350; Kosonen 1995; Montanari 2001:471; Scharpf 1997). According to this interpretation of curvilinear effects, globalization forces both high and low spenders towards mean levels of welfare effort. Thus, a convergence interpretation builds from the empirical reality that more globalized economies tend to have more generous welfare states (Cameron 1978, Rodrik 1998). For the highly globalized nations with generous welfare states, even greater levels of globalization would entail welfare retrenchment. For the less globalized nations with minimal welfare states, globalization would trigger expansion. Thus, globalization may force the most generous welfare states to reduce their extensiveness, and force the least generous welfare states to increase to a moderate, “normal” level.<sup>5</sup> One can expect a process of symmetric convergence where big

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<sup>4</sup> Hicks (1999: 241) explains: “After the 1970s onset of economic troubles – heightened natural rates of unemployment, increased corporate policy leverage, and so on – world economic globalization ushered in an era of challenges to welfare state variation. Intensifications of international economic competitiveness increased pressures for enhanced economic flexibility and efficiency. These pressures, made writ by neoliberal economic orthodoxy, depressed state taxing, spending, and regulatory activity.” Surprisingly, however, Hicks finds that trade openness increases the likelihood of a welfare retrenchment event and its square reduces the likelihood, and that investment openness squared has a negative effect on the likelihood of a welfare retrenchment event.

<sup>5</sup> For example, consider that Sweden has a generous welfare state and is highly globalized, while the U.S. is less globalized and has a minimal welfare state. Curvilinear effects (positive and negative) would suggest convergence of these two countries. If the U.S. increases from low to moderate levels of globalization, the welfare state would be expected to increase. If Sweden increases from high to very high levels of globalization, the welfare state would be expected to decrease. In turn, both would

spenders retrench while low spenders expand the welfare state. In both cases, this is due to the need to make it politically feasible for the economy to be more exposed to international trade and capital (Garrett 1998a). Even skeptics of globalization arguments concede that welfare state convergence has occurred in the globalization era (Williamson 1996; Wilensky 2002).

## **2.4 Globalization as Insignificant**

Despite the extensive literature connecting globalization and the welfare state, many remain skeptical that globalization has any effect on the welfare state. Several studies have sought to demonstrate that globalization is not causing welfare state reductions or convergence (Atkinson 2002; Bairoch 1996; Fligstein 2001; Hirst and Thompson 1996; Krugman 1994; Wade 1996; Wilensky 2002). For example, Steinmo (2002) finds little evidence that globalization undermines the generous Swedish welfare state. Others contend globalization is simply less salient than domestic politics (Gilpin 2001; Myles and Pierson 2001). Many have emphasized that national histories, cultures and institutions continue to dominate the politics of each country's unique welfare state (Berger 2000; Berger and Dore 1996; Boyer and Drache 1996; Kuhnle 2000). Beyond the general claim that globalization is insignificant, globalization skeptics propose models that can be categorized into four major theoretical alternatives.<sup>6</sup>

First, a few studies have claimed that while globalization does not have general effects on all welfare states, globalization has contingent effects only in certain contexts. Globalization's effects are conditional on specific institutional circumstances. Swank (2002) contends that globalization does not threaten the generous social democratic and corporatist welfare states. Rather, globalization only undermines the uncoordinated liberal welfare states, and should not have general effects across all countries (Hall and Soskice 2001: 56-58). In contrast, some have argued the most pronounced welfare state crisis is occurring in Western Europe and globalization, with other factors, underlies this crisis

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converge towards mean welfare state levels. Of course, there are other interpretations of curvilinear effects that would not necessarily entail convergence.

<sup>6</sup> To a certain extent, all welfare states theories that do not emphasize globalization could be viewed as alternatives to arguments that globalization has significant effects. We concentrate on these four alternatives because they have been most prominent in trying to explain welfare states in the globalization era and/or have been posited against arguments that globalization has significant effects.

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(Korpi 2003). Thus, globalization might be expected to be more influential in European versus non-European countries.

Second, one of the most prominent welfare state theories in recent years has contended that “new politics” govern social policy (Pierson 2001). Pierson (1994, 1996) emphasizes that welfare states are resilient and have not experienced significant retrenchment or crisis. Advocates of a new politics approach contend that the welfare state represents the status quo in affluent democracies (Myles and Pierson 2001). In mature welfare states, constitutional structure, power sharing across different institutions, and the popularity of programs with constituencies of beneficiaries prevents retrenchment. The size and growth of populations of consumers of welfare benefits (e.g. the elderly) bolsters welfare state stability and even fosters further expansion. One crucial extension of the new politics account is that partisanship and class politics became less relevant to understanding welfare state developments after the early 1980s (Huber and Stephens 2001a; Pierson 1996, 2001).

Third, partly as a response to the new politics perspective, scholars have countered that “politics as usual” continues to drive the welfare state (Allan and Scruggs 2004). These critics of the new politics account have argued that the traditional analyses of welfare spending or welfare effort obscure how class and partisan politics continue to influence the welfare state because the classic dependent variables miss the political action (Korpi 2003). Only with more sophisticated dependent variables can one detect how partisan and class politics explain welfare state variation and retrenchment. For example, Korpi and Palme (2003) contend that power resources of labor and leftist mobilization explain welfare state retrenchment. Allan and Scruggs (2004) emphasize that while left parties failed to expand the welfare state after their peaks in the early 1980s, right parties crucially instigated retrenchment after that point. For Allan and Scruggs, left parties caused expansion of the welfare states in earlier years, while right parties triggered retrenchment after welfare states were institutionally mature.

Fourth, contrasting with claims that globalization has either positive or negative effects, Iversen and Cusack (2000) contend that it is really deindustrialization that drives welfare state expansion (also Iversen 2001; Iversen and Wren 1998). The decline of manufacturing and agricultural employment, the traditional sectors of domestic production, generates a decline of long-term stable employment for the working-class. Thus, deindustrialization creates a large population that requires more government services and welfare state

spending. Iversen and his collaborators have forcefully asserted that globalization's effects are less relevant after considering the crucial decline of manufacturing and agricultural employment.

### **3 Data, Methods and Measures**

Our study is based on a pooled time series analysis of 17 affluent democracies (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and the United States) from 1975 to 1998. We analyze this period for substantive and methodological reasons.<sup>7</sup> Substantively, we begin after the 1973 Oil Crisis and the end of fixed exchange rates – i.e., the period when most approximate the beginning of the contemporary globalization era (Guillén 2001). Methodologically, most globalization indicators are not available for most countries before 1975 and the welfare state measures are not available for the U.S. after 1998. For 14 countries, we have complete time series. However, for three countries, missing data for several key globalization variables forced us to exclude some years. The Ireland series includes 1991-1998, the Japan series is 1978-1998, and the Switzerland series is 1984-1998. We re-estimated all models with each or all three of these countries excluded and the conclusions were identical (see footnote 20), so we decided to retain them in our sample. As a result, our sample includes 380 country-years as cases.

Following recent sociological pooled time series analyses of the welfare state (Hicks 1999; Huber and Stephens 2000, 2001a), we use Beck and Katz's (1995) technique of ordinary least squares with panel corrected standard errors (OLS-PCSE) and a first order autocorrelation correction (AR1).<sup>8</sup> Though this strategy is arguably most defensible for the

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<sup>7</sup> To our knowledge, our study is one of the few to concentrate on this era and include the later 1990s (Allan and Scruggs 2004). Beyond data limitations, we intentionally avoid reanalyzing the well-examined longer period of welfare state development (i.e. 1960-present). Instead, we concentrate on the sources of variation among mature welfare states in the globalization era.

<sup>8</sup> Despite this convention among sociologists, some political scientists argue for a lagged dependent variable (LDV) instead of an AR1 correction (Beck and Katz 1996; Beck 2001; Garrett and Mitchell 2001). However, Plumper et al. (2004) show that our strategy is probably the most defensible. Plumper et al show that the t-scores of the LDVs are biased upwards and the coefficients and t-scores for other independent variables are biased downwards. Nevertheless, we reestimated all models with a LDV, and our conclusions are consistent (details available upon request). As another dynamic alternative, we estimated the Arellano-Bond (1991) dynamic panel model, or generalized method of

purposes of this analysis (Beck 2001; Plümper et al. 2004), we experimented with panel techniques as well (also see footnote 8).<sup>9</sup> Our conclusions were generally consistent with alternative techniques, so we confine our presentation to OLS-PCSE AR1 analyses.

With statistical significance and basic fit statistics, the Bayesian Information Criterion Prime (BIC') assists model comparison. BIC' selects the more parsimonious model unless model fit is significantly enhanced (Raftery 1995). Specifically, the model with the greater negative value of BIC' is preferred. A BIC' difference of 0-2 offers weak evidence, 2-6 offers positive evidence, 6-10 offers strong evidence, and more than 10 offers very strong evidence. We now describe the variables. In Table 1, we provide the descriptive statistics and sources. Data for many of the variables are proximately from Huber et al.'s (2004) *Comparative Welfare States Database*. In Appendix I, we also provide a correlation matrix for the main variables.

*Table 1: Descriptive Statistics and Sources for Variables (N=380).*

	<i>Mean</i>	<i>Std Dev</i>	<i>Sources</i>
<b><i>Dependent</i></b>			
Government Expenditures as % of GDP	44.243	9.067	OECD (2003a)
Social Security Transfers as % of GDP	15.000	4.491	See Above
<b><i>Baseline Model</i></b>			
Left Cabinet	13.378	10.718	Huber et al. (2004)
Christian Democrat Cabinet	.619	2.123	See Above
Union Density	53.388	24.818	Ebbinghaus and Visser (2000)
Constitutional Structure	2.861	2.100	Huber et al. (2004)
Female Labor Force Participation	58.898	10.559	OECD (2003a)
Female Labor Force Part. * Left Party	.503	4.033	See Above
Voter Turnout	79.182	12.627	Huber et al. (2004)

moments estimator (details available upon request). This technique also did not change our conclusions.

<sup>9</sup> Since the sample includes more years (24) than countries (17), Beck (2001) would argue that the dataset should be considered a pooled time series rather than a panel. As a result, we use a pooled time series technique, rather than panel techniques, in this study. In analyses available upon request, we estimated fixed effects models with a first order autocorrelation correction. This technique did not change our conclusions.

Table 1 continued

Elderly Population	13.582	2.143	OECD (2003b)
Strikes	4.106	31.659	ILO (2003)
Authoritarian Legacy	2.016	.853	Huber et al. (2004)
GDP Per Capita	18762.800	3290.446	OECD (2003b)
Year	11.929	6.889	
Inflation	5.794	4.341	IMF (2003)
Unemployment	6.651	3.458	OECD (2003a)
Military Spending	2.606	1.211	SIPRI (2003)
Mfg. & Agric. Employment	34.975	7.122	OECD (2003a)
Labor Power	32.998	27.920	Ebbinghaus and Visser (2000); Kenworthy (2003)
Right Cabinet	14.515	11.600	Huber et al. (2004)
<i>Globalization Advantage</i>			
Inward FDI	1.014	1.062	IMF (2003)
Inward PI	1.941	3.155	See Above
Net Investment	-.093	3.050	See Above
Exports	30.911	14.983	See Above
Net Trade	1.074	3.039	See Above
Net Globalization	0.985	3.665	See Above
<i>Globalization Openness</i>			
FDI Openness	2.381	2.179	See Above
Investment Openness	6.033	7.372	See Above
Trade Openness	60.747	28.618	See Above
Total Globalization	66.688	32.272	See Above
Capital Accounts Liberalization Index	3.274	.700	See Above
Current Accounts Liberalization Index	6.979	1.167	See Above
<i>Globalization Threat</i>			
Outward FDI	1.367	1.379	See Above
Outward PI	1.695	3.465	See Above
Imports	29.837	13.770	See Above
Net Migration	1.960	2.701	See Above
<i>Alternative Dependent Variables</i>			
Government Revenue	42.898	8.396	OECD (2003a)
Social Welfare Expenditures	22.681	6.205	OECD (2001)
Public Employment	11.924	5.044	Cusack (2004)
Public Health Spending	75.146	12.148	OECD (2003b)



### 3.1 Dependent Variables

Our analysis focuses on two measures of the welfare state: *Government Expenditures as % of GDP* and *Social Security Transfers as % of GDP*. The first dependent variable is all total current disbursements for general government (including central, state and local) and is a comprehensive measure of welfare state size. The second includes all state-sponsored cash transfers for sickness, old age pensions, family allowances, unemployment and workers' compensation and other assistance. While the second concentrates on direct compensatory payments, the first incorporates Keynesian investments in public employment and active labor market programs, as well as the provision of social services (e.g. health care).

Of course, there have been debates over how to measure the welfare state. Some assert that these traditional measures do not fully reflect the true characteristics or dynamics of social policy (Allan and Scruggs 2004; Korpi 2003; Korpi and Palme 2003; Esping-Andersen 1990, 1999). While we appreciate these concerns, we contend that there are important reasons to continue to analyze these two measures. First, among welfare state measures, government expenditures and social security transfers actually are most influential for inequality and poverty (Bradley et al. 2003; Brady 2003; Moller et al. 2003).<sup>10</sup> Second, most previous research, and specifically most sociological research, has used these or similar measures. Since our study explicitly builds on such work (e.g. Huber and Stephens 2000, 2001a), it is appropriate to analyze some of the same dependent variables. As we explain below, we also conduct sensitivity analyses with four alternative dependent variables to be certain that our conclusions are robust. For most of our analyses, we concentrate on the two central dependent variables.

### 3.2 Control Variables

We begin our analysis by estimating a baseline model of established determinants of welfare state variation. We start by replicating Huber and Stephens' (2000, 2001a: 52-53) model with the same measures. We use their model as a point of departure because it is an

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<sup>10</sup> If recent innovations truly improve welfare state measurement, they should have greater predictive validity for central outcomes like poverty or inequality. Despite strong claims of measurement improvement, to our knowledge, no evidence of greater predictive validity is available for these novel alternatives.

influential state-of-the-art synthetic model that shares a great deal with most contemporary models of welfare effort (e.g., Hicks 1999). We also build on their model because we are using the same dataset and we focus on the same dependent variables.

Following convention, we lag all independent variables one year. *Left Cabinet* is measured as the cumulative Left seats as a percent of government seats since 1946. This variable was calculated by tabulating the Left seats as a percent of seats held by all government parties in each individual year and then summing these percentages since 1946. *Christian Democrat Cabinet* is measured the same as Left Cabinet, but for centrist Catholic and Protestant parties. We measure *Union Density* as gross union members as a percent of total wage and salaried employees. *Constitutional Structure* is measured as the number of veto points created by constitutional provisions.<sup>11</sup> *Female Labor Force Participation* is the percent of women aged 15 to 64 in the labor force. We also include an *Interaction of Female Labor Force Participation and Current Left Cabinet* after both have been centered on their means. *Voter turnout* is measured as the percent of the adult population that voted in the most recent national election. The *Elderly Population* is measured as the percent of the population over 65 years old. *Strikes* is measured as the number of working days lost due to strikes per thousand workers. *Authoritarian Legacy* is a dummy variable for an authoritarian regime in the late nineteenth century. *GDP Per Capita* is the gross domestic product (GDP) in real purchasing power parity dollars, divided by the total population. *Year* is coded as 1975 = 0, 1976 = 1, 1977 = 2, . . . 1998 = 23.<sup>12</sup> *Inflation* is measured as the annual percent change in the consumer price index. *Unemployment* is the percent of the total labor force unemployed. *Military Spending* is measured as a percent of GDP.

Our baseline models also extend beyond Huber and Stephens by incorporating three additional independent variables. First, following Iversen and Cusack's (2000) emphasis on deindustrialization as the cause of welfare state expansion, we include *Manufacturing and Agricultural Employment* as a percent of the total labor force. Second, influenced by Hicks'

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<sup>11</sup> Huber and Stephens sum measures of federalism, presidential system, single member districts plurality electoral systems, the strength of bicameralism, the frequency of referendums, and judicial review.

<sup>12</sup> Though we follow Huber and Stephens' (2000, 2001a) detrending approach, some may be concerned with our including both an AR1 correction and year. In turn, we estimated models without the AR1 correction and the conclusions do not change. The year coefficient may be collinear with a few independent variables. So, we estimated models without the year coefficient and with the AR1 correction and none of the conclusions were different. Thus, we concluded that including both the year and AR1 correction does not bias our results.

(1999) persuasive account of the central role of corporatism and working class mobilization for welfare state development, we include a measure of *Labor Power*. We construct the measure of labor power by multiplying the aforementioned union density and Kenworthy's (2003) index of neocorporatism. Third, based on recent studies of welfare state variation in the contemporary era (e.g. Allan and Scruggs 2004), we include a measure of *Right Cabinet*, which is a historically cumulative variable like the left and Christian Democrat cabinet variables. Our measure sums "right" parties, "right, Christian" parties, and "right, Catholic" parties in Huber et al. (2004).

### 3.3 Economic Globalization Measures

Our study aims to improve upon existing studies of globalization and the welfare state. Hence, our operationalization of globalization is guided by three main concerns. First, we focus on the largest dimensions of international economic exchange. Thus, we do not limit our focus to exchange with developing countries. Sometimes, analysts do so in order to test a precise hypothesis concerning, for example, investment fleeing to or imports from developing countries (Alderson 1999; Burgoon 2001). Unfortunately, this has the consequence of omitting the vast majority of the globalization experienced by affluent democracies. Most international economic exchange occurs among affluent democracies, so it is essential to incorporate investment in and trade with all countries (Gilpin 2001; Hirst and Thompson 1996). Second, we provide a comprehensive analysis of the multiple facets of globalization. Often, globalization has been operationalized with only a few convenient indicators like trade openness. We embrace the reality that the measurement of globalization is contested and the literature has yet to converge on a single measure (Guillén 2001; Held et al. 1999). Thus, our analysis features a wide variety of indicators of globalization. As our analysis reveals below, doing so is advantageous. Different indicators reveal different effects and a broader variety of indicators provides a more comprehensive examination of globalization.

Third, our measures of globalization are motivated by key conceptual distinctions. Globalization has been conceptualized as advantage (the benefits from outward flowing goods and services and inward flowing investment), openness (the sheer extent to which national economies are accessible to international exchange), and threat (the danger of inward flowing goods, services and labor and outward flowing investment). For the most part, the various theories of globalization's effects have tended to rely on distinct

conceptions of globalization. Globalization as expansion has focused on advantage and openness. Globalization as crisis and retrenchment has focused on openness and threat. Globalization as curvilinear effects and convergence has incorporated all three. Concretely, globalization includes trade, direct and portfolio investment, the legal institutions enabling international exchange (Quinn 1997), and the migration of labor. Cross-classifying these concepts with concrete measures, we seek to provide a comprehensive examination of globalization's possible effects on the welfare state.<sup>13</sup> Most of our globalization indicators are expressed as a percent of GDP – we note when they are not.

First, we include six indicators of globalization advantage. *Inward Foreign Direct Investment (FDI)* represents capital flows where a foreign firm acquires at least a 10% ownership share and management of a domestic firm or facility. *Inward Portfolio Investment (PI)* is bond or equity financial flows that amount to less than a 10% ownership of domestic firms by foreign investors. *Net Investment* is the difference of inward minus outward (see below) FDI and PI. Inward investment and positive net investment are advantages of globalization in that they strengthen the national economy by increasing capital. As they are the opposite of capital flight, it should not constrain the welfare state. *Exports* are the value of all goods and services flowing out of a country and into a foreign country. *Net Trade* is the difference between exports and imports (see below) – positive values indicate a trade surplus and negative values indicate a trade deficit. *Net Globalization* is a new measure that sums net investment and net trade, and represents the extent to which countries export more than they import and receive more investment than they send out. This measure distinguishes between countries that “win” vs. those that “lose” from globalization, including both investment and trade dimensions.

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<sup>13</sup> We do not think it is possible (or advisable) to select only a few indicators as perfect tests of each theory of globalization's effects. Instead, we follow Guillén (2001: 255): “Globalization is neither a monolithic nor an inevitable phenomenon. Its impact varies across countries, societal sectors, and time. It is contradictory, discontinuous, even haphazard. Therefore, one needs to be open-minded about its unexpected and unintended consequences.” Many of the globalization indicators have been previously examined, so for those, we are simply following convention. However, we move beyond past research by bringing them all together and incorporating new measures. Despite the expansion of portfolio investment and the increased international liberalization of markets, these have been relatively neglected. Furthermore, immigration is the core measure of labor globalization, yet has rarely been analyzed.

Second, we consider six measures of globalization openness.<sup>14</sup> *FDI Openness* is the sum of inward and outward FDI. *Investment Openness* is the sum of inward and outward FDI and inward and outward PI. *Trade Openness* is the sum of exports and imports. *Total Globalization* is a new measure that sums trade openness and investment openness. *Capital Accounts Liberalization Index* is Quinn's (1997) measure of the legal openness for capital accounts transactions across national boundaries. *Current Accounts Liberalization Index* is Quinn's measures of the legal openness of national boundaries to current accounts transactions.

Third, we analyze four measures of globalization threat. *Outward FDI* represents capital flows where a domestic firm acquires at least a 10% ownership share and management of a foreign firm or facility. This variable represents capital flight. *Outward PI* is bond or equity financial flows that amount to less than a 10% ownership of foreign firms by domestic investors. *Imports* are the value of all goods and services flowing into a domestic economy from a foreign country. *Net Migration* is the difference between the domestic population in the previous and current year that remains after accounting for births and deaths.<sup>15</sup> Positive values indicate net in-migration, while negative values represent net out-migration.

## 4 Results

In the tables below, we present analyses for both dependent variables: government expenditures and social security transfers. Our analysis involves five stages. First, we establish a baseline model. Second, we analyze the linear relationship between globalization and the welfare state net of the baseline. Third, we examine the possible curvilinear relationship between globalization and the welfare state net of the baseline.

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<sup>14</sup> Typically, scholars measure trade openness and simply called it "economic openness." We feel that analysts need to be more precise, since we show that direct and portfolio investment and trade have different effects.

<sup>15</sup> Unfortunately, more valid and reliable cross-national and historical data on immigration are simply not available. The OECD provides data on variables like the percent of the population foreign born, but these data are not available before the mid-1980s, and even after then are spotty for many nations. We appreciate that these net migration estimates should be interpreted with caution. There is a certain circular reasoning in that the population, birth and death estimates are actually based themselves on statistical estimates of immigration.

Fourth, we present final models with the baseline and the most significant globalization effects. Fifth, we conduct a series of sensitivity analyses with sub-samples and alternative dependent variables.

#### **4.1 Baseline Models**

The first models in Table 2 are the baseline Huber and Stephens (2001a) model. Several key variables are significant for both dependent variables. Left cabinet, the elderly population, authoritarian legacy, and unemployment are significantly positive, and constitutional structure is significantly negative. However, some central variables in Huber and Stephens “power constellations” approach fail to reach significance: Christian Democrat cabinet does not significantly affect social security transfers, and union density, the interaction of female labor force participation and current left cabinet, voter turnout, strikes, and inflation are insignificant for both dependent variables. Notably, some coefficients have significant effects in the opposite direction from previous research: GDP per capita and female labor force participation significantly decrease social security transfers, and military spending significantly increases both dependent variables. These results confirm that the causal processes generating welfare state development in earlier periods do not entirely explain variation across welfare states from 1975 to 1998 (Allan and Scruggs 2004; Pierson 2001) – something recognized by Huber and Stephens (2001) and Hicks (1999).

Given the modest performance of the Huber-Stephens model, we revised it by dropping all variables where the t-score fails to reach the lenient threshold of 1.0 for either dependent variable. In the second models, we omit union density, the interaction of female labor force participation and current left cabinet, and the strikes variable. The reader may be concerned with our omission of union density, given its prominent role in power resources theory (Hicks 1999; Korpi and Palme 2003). However, Huber and Stephens make the same choice because of the high correlation between left cabinet and union density ( $r=.65$ ). Since the two are causally related, it is often difficult to include both in the same model. These revised models perform better than the first. BIC’ positively prefers both second models, and the effects of the variables are relatively robust in these more parsimonious models.

*Table 2: OLS-PCSE Baseline Models of Welfare State Measures in Seventeen Developed Democracies, 1975-1998 (N=380).*

	<i>Government Expenditures</i>				<i>Social Security Transfers</i>			
Left Cabinet	.184** (2.40)	.210*** (2.72)	.070 (.88)		.096** (2.53)	.086** (2.39)	.041 (1.07)	
Christian Democrat Cabinet	.679** (2.11)	.566* (1.66)	.272 (.84)		.478 (1.41)	.452 (1.27)	.439 (1.20)	
Union Density	.028 (.89)				-.006 (-.30)			
Constitutional Structure	-.920*** (-2.86)	-.977*** (-3.04)	-.851*** (-2.70)	-.596* (-1.89)	-.089 (-.29)	-.024 (-.13)	.052 (.27)	-.048 (-.24)
Female Labor Force Participation	-.016 (-.23)	-.008 (-.12)	-.070 (-1.03)	-.032 (-.49)	-.074* (-1.67)	-.068 (-1.47)	-.075 (-1.54)	-.093** (-2.06)
Female Lab. Force Part. * Left Party	-.025 (-.50)				-.013 (-.51)			
Voter Turnout	.040 (1.19)	.040 (1.18)	.019 (.55)	.026 (.77)	-.023 (-1.01)	-.020 (-.86)	-.021 (-.89)	-.025 (-1.14)
Elderly Population	.770** (2.59)	.747** (2.42)	.882*** (2.68)	.788** (2.51)	.632*** (3.66)	.619*** (3.45)	.576*** (3.12)	.568*** (3.35)
Strikes	.002 (.50)				.001 (.56)			
Authoritarian Legacy	1.368** (2.23)	1.341** (2.08)	2.444*** (3.11)	2.584*** (3.29)	.929** (2.24)	.842* (1.84)	.721 (1.40)	.930** (2.12)
GDP Per Capita	-.0001 (-.43)	-.0002 (-.84)	-.001* (-1.92)	-.001** (-2.56)	-.0004** (-2.46)	-.0004*** (-2.94)	-.0005*** (-3.27)	-.0004*** (-3.12)
Year	.051 (.30)	.082 (.50)	-.037 (-.20)	.169 (.87)	.123 (1.49)	.152* (1.93)	.194** (2.22)	.224** (2.44)
Inflation	.102 (1.56)	.103 (1.59)	.110* (1.74)	.092 (1.47)	.033 (1.07)	.033 (1.10)	.034 (1.13)	.022 (.69)
Unemployment	.341** (2.40)	.319** (2.42)	-.130 (-.86)	-.224 (-1.58)	.090 (1.13)	.061 (.86)	.003 (.03)	-.061 (-.71)
Military Spending	1.431*** (3.43)	1.349*** (3.17)	.972** (2.18)	1.082** (2.45)	.414* (1.79)	.418* (1.83)	.465** (1.97)	.545** (2.38)
Mfg. & Agric. Employment			-.554*** (-4.32)	-.518*** (-3.96)			-.032 (-.46)	-.094 (-1.30)
Labor Power			.060** (2.23)	.037 (1.38)			.032** (2.54)	.028** (2.12)
Right Cabinet				-.236*** (-3.30)				-.074** (-2.35)
Constant	21.267*** (3.18)	24.405*** (3.50)	55.515*** (5.85)	58.058*** (6.19)	12.602*** (3.48)	13.059*** (3.50)	15.719*** (2.75)	20.783*** (3.38)
R <sup>2</sup>	.757	.748	.761	.764	.540	.523	.523	.548
BIC'	-448.794	-452.633	-461.365	-471.791	-205.648	-209.849	-197.969	-224.610

\*\*\* p<.01 \*\* p<.05

\*p<.10

Notes: The numbers in parentheses are t-scores. Models include a first-order serial autocorrelation correction. All independent variables are lagged one year.

In the third models, we follow Iversen and Cusack and add manufacturing and agricultural employment, and follow Hicks and add labor power. Both are significant for government expenditures, but only labor power significantly affects social security transfers. As countries deindustrialized from 1975 to 1998, government expenditures expanded. Unlike Iversen and Cusack, we do not find that deindustrialization caused an increase in social security transfers. Interestingly, the significant effect of labor power only occurs for the combination of union density and corporatism. In models by themselves (or alternatively with wage coordination), the coefficients are not statistically significant (not shown). The combination of these two aspects of labor power strengthens the welfare state. Importantly, after including manufacturing and agricultural employment and labor power, several central variables in the Huber-Stephens power constellations model are insignificant.

After controlling for deindustrialization and labor power in the third models, both left and Christian Democrat cabinet are now insignificant. Huber and Stephens claimed that partisan differences were narrowing in recent years, and recognized that the party variables might not be significant in the post-development era (also Pierson). However, before controlling for manufacturing and agricultural employment and labor power, the significant left cabinet effects remained. Rather, the insignificance of left and Christian Democrat parties occurs after including those powerful two new variables. At this stage, our analysis challenges the power constellations approach. Since labor power is significant and left and Christian Democrat cabinet are insignificant, our results support Hicks' account of the paramount influence of corporatism, class politics and unionization.<sup>16</sup>

Last, the fourth models add right cabinet, which significantly decreases both dependent variables. Moreover, BIC' very strongly prefers the fourth models over all other models in Table 2. Clearly, right parties have been a powerful source of welfare retrenchment. Once right parties are included, labor power does not significantly increase government expenditures, but it continues to significantly increase social security transfers. Thus, our results ultimately provide evidence that parties continue to play a mediating role for

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<sup>16</sup> The results are most supportive of the power constellations approach with Huber and Stephens' cumulative measure of left cabinet. In analyses available on request, we substituted the cumulative left cabinet variable with a current left cabinet variable. In all models (including what would be the first two models of Table 2), the current left cabinet variable fails to reach statistical significance. Another problem with the left party measures is that the U.S. and Canada are zero for every year since their "left" parties (e.g. U.S. Democrats) are coded as centrist.



government expenditures, but we find it is right cabinet, and not left or Christian democrat cabinet, that matters. For social security transfers, both labor power and right cabinet have significant effects, and unsurprisingly, they are in opposite directions. Unlike the new politics literature, these results show that parties and labor continue to shape welfare states in the post-development globalization era.<sup>17</sup>

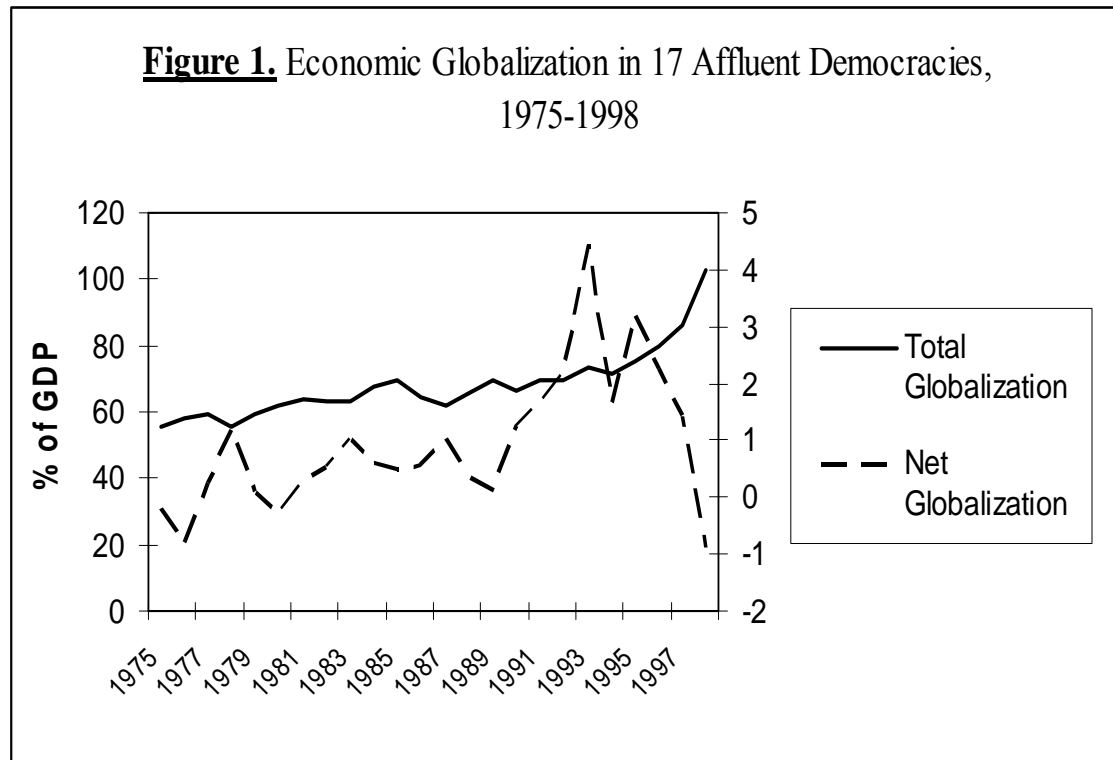
## 4.2 Linear Effects of Globalization

Before discussing globalization's effects, we present the patterns in globalization from 1975 to 1998. Figure 1 shows that, in fact, globalization dramatically increased. The dark solid line shows the average total globalization (investment openness + trade openness) over the period. Total globalization nearly doubled, rising from 55.8 to 102.7 percent of GDP. Despite fluctuation, the long-term increase was secular. On average, affluent democracies increasingly engaged in international economic exchange. The dashed line in this figure displays the average net globalization (net trade + net investment). Net globalization exhibits a great deal of fluctuation without a clear trend. In the early 1990s, our sample exported much more and received more investment, than imported and lost investment. But, by the late-1990s, affluent democracies were again, on average, slightly negative net globalizers. The 1993 spike is driven partly by the addition of Ireland to our sample in 1991, whereas the addition of Japan in 1978 and Switzerland in 1984 did not affect the general patterns. Overall, globalization increased substantially between 1975 and 1997, but involved less consistent patterns of net inward and outward flows.

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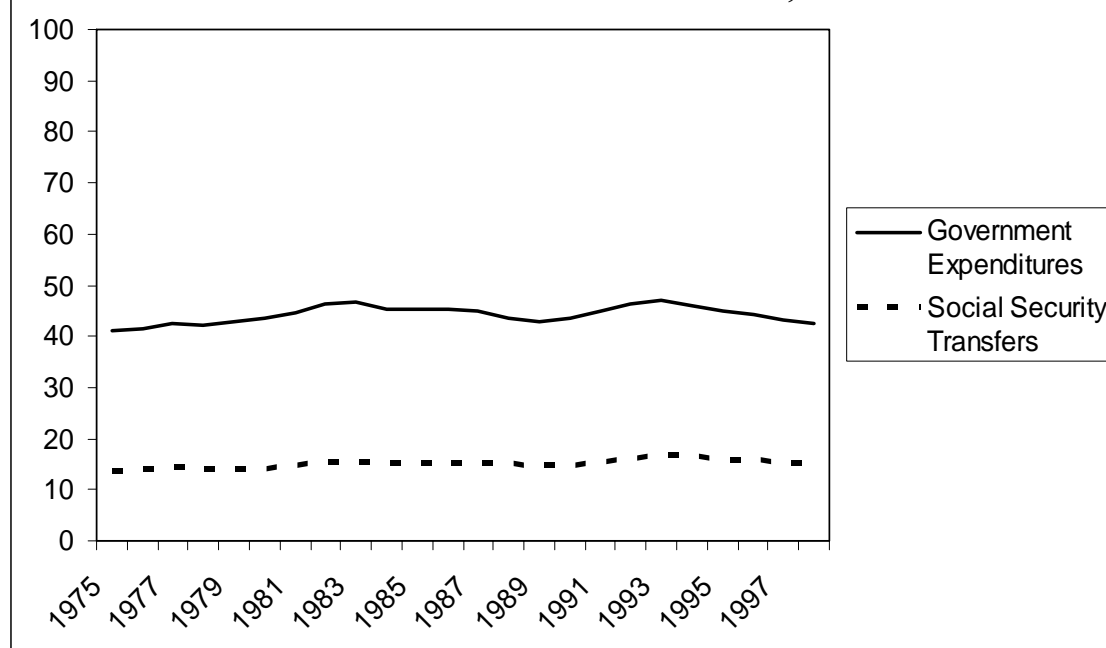
<sup>17</sup> These results seem consistent with Allan and Scruggs (2004) and Korpi and Palme (2003) – especially as they challenge the new politics literature about the declining impact of parties and classes. However, Allan and Scruggs and Korpi and Palme contend that it is necessary to use alternative welfare state measures in order to reach this conclusion. We show that such alternatives are not necessary, but that better model specification is essential.

**Figure 1.** Economic Globalization in 17 Affluent Democracies, 1975-1998



Displaying the trends in our two dependent variables is also instructive. Figure 2 displays the averages of our two dependent variables from 1975 to 1998. During the time globalization substantially increased, the two welfare state measures were remarkably stable. By 1975, the welfare state was institutionalized as the average government expenditures was 41 percent of GDP and the average social security transfers was 13.7. Both government expenditures and social security transfers reached high points in 1983 (46.7 and 15.5). However, they peaked again in 1993: 47 for government expenditures and 16.7 for social security transfers. Moreover, both measures were actually higher in 1998 (42.4 and 14.8) than in 1975. Adding Japan (1978), Switzerland (1984) and Ireland (1991) was inconsequential to the average values. The stability in the measures problematizes the language of “crisis” in the recent literature. Given that this era combines increasing globalization with welfare state stability, the basic descriptive evidence does not clearly support claims about globalization’s positive or negative effects on the welfare state.

**Figure 2.** Means of Two Welfare State Measures as % of GDP in 17 Affluent Democracies, 1975-1998



In Table 3, we analyze the relationship between globalization and the welfare state. As we explained above, globalization may cause a positive expansion of the welfare state, negative reduction, or possibly has no effect at all. We model both dependent variables as functions of the fourth model in Table 2 and various globalization covariates, including one globalization indicator at a time. Following our discussion, we differentiate globalization indicators into advantage, openness and threat. For comparison, we also present the fit statistics from the fourth model of Table 2. Coefficients for the baseline variables are not shown, but are available upon request.

The models of government expenditure provide little evidence that globalization has either a positive or negative linear effect. Twelve of the globalization covariates fail to reach significance, net of the baseline model. Also, many of the signs of the insignificant coefficients seem to be inconsistent with any of the prior theories of globalization's effects. Exports, a measure of globalization advantage, are negative, while imports, a measure of globalization threat, are positive. Three of the measures of openness are negatively signed, while two are positively signed.

*Table 3: OLS-PCSE Models of Welfare State Measures on the Linear Effects of Globalization Indicators in Seventeen Developed Democracies, 1975-1998 (N=380).*

	<i>Government Expenditures</i>	<i>R<sup>2</sup></i>	<i>BIC'</i>	<i>Social Security Transfers</i>	<i>R<sup>2</sup></i>	<i>BIC'</i>
Baseline Model		.764	-471.791		.548	-224.610
<b><i>Advantage</i></b>						
Inward FDI as % of GDP	-.269* (-1.81)	.792	-513.337	-.196** (-2.38)	.567	-234.729
Inward PI as % of GDP	.019 (.48)	.743	-433.284	.019 (1.00)	.551	-221.031
Net Investment	.045 (1.27)	.777	-487.059	.032 (1.56)	.555	-224.773
Exports as % of GDP	-.051 (-1.18)	.766	-469.250	-.022 (-.90)	.551	-220.693
Net Trade	-.169** (-2.55)	.773	-479.635	-.029 (-.77)	.556	-224.944
Net Globalization	.004 (.13)	.764	-465.368	.022 (1.20)	.550	-220.186
<b><i>Openness</i></b>						
FDI Openness	-.232*** (-2.82)	.778	-488.254	-.141*** (2.66)	.560	-229.069
Investment Openness	-.013 (-.60)	.778	-488.938	-.778 (-.70)	.552	-222.218
Trade Openness	-.014 (-.60)	.765	-466.657	-.010 (-.78)	.550	-219.849
Total Globalization	-.012 (-.82)	.767	-469.738	-.008 (-1.00)	.551	-220.947
Capital Accounts Liberalization Index	.615 (1.44)	.763	-464.082	.729*** (2.83)	.554	-223.919
Current Accounts Liberalization Index	.291 (1.24)	.749	-441.961	.246** (1.97)	.537	-209.038
<b><i>Threat</i></b>						
Outward FDI as % of GDP	-.333*** (-2.95)	.770	-475.645	-.181** (-2.18)	.559	-228.292
Outward PI as % of GDP	-.020 (-.48)	.787	-504.672	-.015 (-.62)	.559	-227.948
Imports as % of GDP	.002 (.05)	.764	-465.207	-.014 (-.61)	.549	-219.427
Net Migration	-.001 (-.02)	.779	-491.171	.019 (.57)	.555	-224.602

\*\*\* p&lt;.01

\*\* p&lt;.05

\*p&lt;.10

Notes: The numbers in parentheses are t-scores. Models include the baseline control variables from the fourth model of Table 2 and a first-order serial autocorrelation correction. All independent variables are lagged one year.

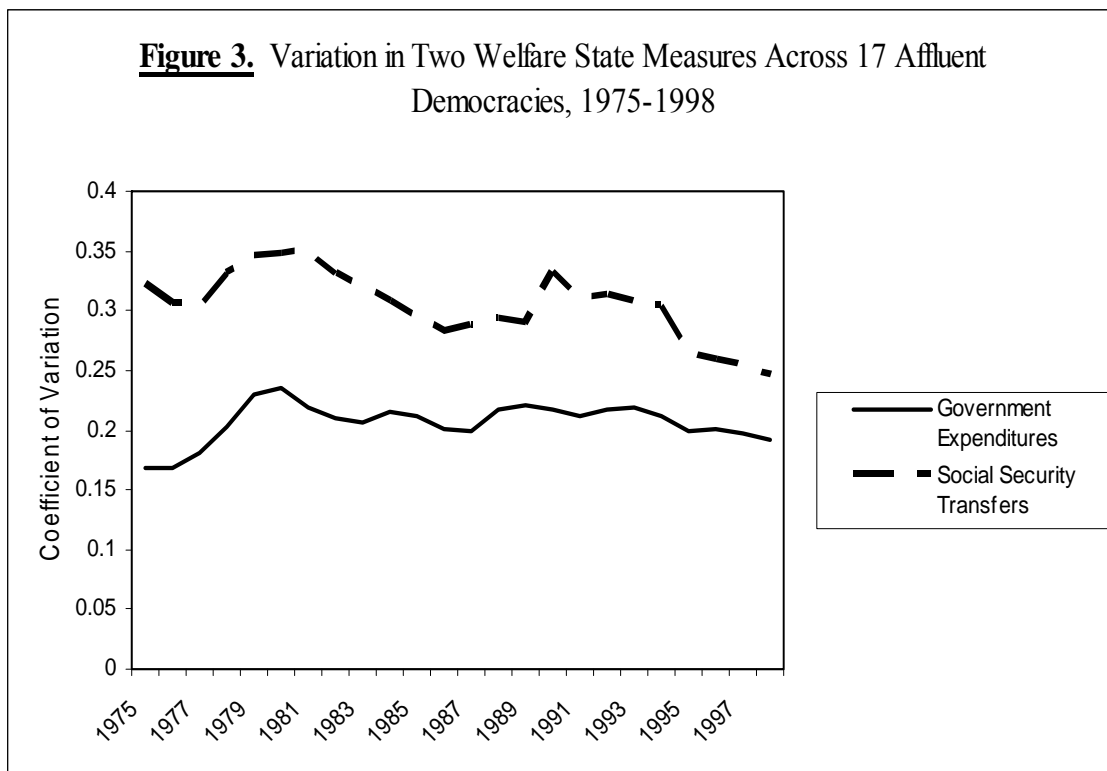
Only four measures are significantly associated with government expenditures, and two of these are in unexpected directions. Inward FDI and net trade, presumably positive signs of globalization advantage, significantly reduce government expenditures. At the same time, outward FDI, an indicator of globalization threat, has a significant negative effect. FDI openness has a significant negative effect – which is unsurprising since it is the sum of inward and outward FDI (each significantly negative). The fit statistics confirm that adding these globalization indicators to the baseline explains additional variation among welfare states.

Models of social security transfers provide similar evidence. Eleven of the globalization coefficients fail to reach significance. Among the insignificant coefficients, two of the advantage measures are negative and three are positive. All three of the openness measures are negative, and two of the threat measures are negative and one is positive. Five indicators have significant effects. As with government expenditures, inward and outward FDI and FDI openness have significant negative effects. Unique to social security transfers, Quinn's indices of capital and current accounts liberalization both have significant positive effects. The models including the FDI variables improve model fit, while the models including Quinn's indices are not preferred by BIC'.

On the whole, these findings provide only limited evidence for either linear globalization theory. What evidence exists seems to contradict a simple interpretation. Both positive and negative effects appear, and these do not closely correspond with extant theory's conceptions of globalization as advantage, openness or threat. Moreover, eleven of the sixteen indicators of globalization – notably including both the total and net globalization summary measures – fail to have a significant effect for either dependent variable. Thus, globalization has some precise effects with specific indicators, but globalization does not have a general linear relationship with the welfare state. Examining many different globalization indicators allows us to detect findings that might have been overlooked with general measures of economic openness. Without considering many different indicators, it is possible to have an incomplete or even mistaken understanding about the relationship between globalization and the welfare state.

### 4.3 Curvilinear Effects of Globalization

If the evidence that globalization causes retrenchment is precise and limited, it may still have curvilinear effects. One possible explanation for the null results above is that the effects of globalization may be nonlinear. If the relationship between the welfare state and globalization takes an inverted U-shape, the globalization effect would be masked by the (mis-) specification of the linear model. As we explained above, such a quadratic curvilinear relationship could provide evidence of welfare state convergence.



Before examining such curvilinear effects, we present the descriptive patterns in welfare state variation across affluent democracies. Figure 3 displays the coefficients of variation for the two welfare state measures from 1975 to 1998. During the globalization era, government expenditures actually diverged sharply from a coefficient of variation of .17 in 1975 to .24 in 1983. After that point, government expenditures slowly and slightly converged to .19 in 1998 – the lowest point since 1977. Social security transfers slightly diverged from .32 in 1975 to about .35 from 1979 to 1981. After that, social security transfers fluctuated until it reached .33 in 1990. Since then, there has been a significant

convergence to .25 in 1998. Some of these patterns should be read with caution, since we add Japan, Switzerland, and Ireland to the sample in 1978, 1984 and 1991. Nevertheless, sizable convergence in social security transfers occurred at least after 1991, while government expenditures showed more modest convergence.

Table 4 shows results for government expenditures where each globalization covariate enters the model with a quadratic specification.<sup>18</sup> For nine of the sixteen globalization indicators, both main and squared terms are insignificant. Only in the model for net trade are both the globalization indicator and its square significant. Both terms are negative, with the squared term smaller in magnitude. As countries export more and import less, government expenditures initially decline steeply and subsequently decline modestly. Exports, trade openness, and net migration have significant negative effects only in the squared term, but are not significant in the main term. This suggests that government expenditures decline only at high levels of exports, trade openness and net migration. Consistent with Table 3, FDI openness has a negative effect in the main term. When coefficients are significant, model fit improves. For example, BIC' very strongly prefers the models with net trade and its square over the baseline model. Despite these findings, no globalization indicator has the expected curvilinear relationship of positive and negative effects that would suggest convergence. Exports, trade openness, and imports have such positive and negative effects with t-scores greater than 1.0 for both. However, both terms fail to reach significance.

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<sup>18</sup> A common concern with the quadratic specification is that collinearity between a variable and its square can inflate the standard errors of both coefficients. In all but a few models, Wald joint significance tests are not significant.

*Table 4: OLS-PCSE Models of Welfare State Measures on the Curvilinear Effects of Globalization in Seventeen Developed Democracies, 1975-1998 (N=380).*

	<i>Government Expenditures</i>	<i>R<sup>2</sup></i>	<i>BIC'</i>	<i>Social Security Transfers</i>	<i>R<sup>2</sup></i>	<i>BIC'</i>
Baseline Model		.764	-471.791		.548	-224.610
<b><i>Advantage</i></b>						
Inward FDI as % of GDP	-.250 (-.90)	.794	-511.804	-.222 (-1.52)	.573	-234.623
Inward FDI as % of GDP <sup>2</sup>	-.005 (-.09)			.005 (.16)		
Inward PI as % of GDP	.039 (.72)	.781	-487.304	.027 (1.01)	.557	-220.031
Inward PI as % of GDP <sup>2</sup>	-.002 (-.61)			-.001 (-.66)		
Net Investment	.045 (1.18)	.782	-489.040	.032* (1.65)	.561	-223.994
Net Investment <sup>2</sup>	-.001 (-.10)			.001 (.16)		
Exports as % of GDP	.123 (1.19)	.785	-494.472	.090 (1.38)	.570	-231.253
Exports as % of GDP <sup>2</sup>	-.002* (-1.90)			-.001* (-1.71)		
Net Trade	-.152** (-2.33)	.790	-503.040	-.016 (-.43)	.571	-232.579
Net Trade <sup>2</sup>	-.015* (-1.69)			-.010** (-1.97)		
Net Globalization	.008 (.24)	.790	-503.944	.019 (.92)	.563	-225.557
Net Globalization <sup>2</sup>	-.0004 (-.10)			.001 (.55)		
<b><i>Openness</i></b>						
FDI Openness	-.355* (-1.89)	.782	-490.260	-.158 (-1.30)	.566	-227.825
FDI Openness <sup>2</sup>	.013 (.75)			.002 (.14)		
Investment Openness	-.022 (-.54)	.779	-484.715	-.011 (-.56)	.554	-217.808
Investment Openness <sup>2</sup>	.0002 (.31)			.0001 (.30)		
Trade Openness	.069 (1.29)	.783	-490.958	.045 (1.39)	.571	-232.225
Trade Openness <sup>2</sup>	-.0005* (-1.74)			-.0003 (-1.64)		



Table 4 continued

Total Globalization	.016 (.49)	.781	-487.997	.003 (.15)	.561	-223.562
Total Globalization Total Globalization <sup>2</sup>	-.0001 -.0001 (-.94)			-.00 -.0005 (-.67)		
<b><i>Threat</i></b>						
Outward FDI as % of GDP	-.450 (-1.56)	.768	-466.740	-.113 (-.55)	.563	-225.470
Outward FDI as % of GDP <sup>2</sup>	.020 (.43)			-.011 (-.30)		
Outward PI as % of GDP	-.033 (-.50)	.788	-500.162	-.023 (-.56)	.560	-222.956
Outward PI as % of GDP <sup>2</sup>	.001 (.29)			.0004 (.33)		
Imports as % of GDP	.139 (1.44)	.783	-491.659	.078 (1.34)	.571	-232.491
Imports as % of GDP <sup>2</sup>	-.002 (-1.56)			-.001 (-1.51)		
Net Migration	.121 (1.38)	.784	-492.887	.101** (2.21)	.566	-227.650
Net Migration <sup>2</sup>	-.011** (-2.41)			-.007*** (-3.17)		

\*\*\* p&lt;.01

\*\* p&lt;.05

\*p&lt;.10

Notes: The numbers in parentheses are t-scores. Models include the baseline control variables from the fourth model of Table 2 and a first-order serial autocorrelation correction. All independent variables are lagged one year.

Table 4 also shows the results for social security transfers. For ten of the sixteen globalization indicators, both the main and squared term are insignificant. The net investment main term is barely significantly positive ( $t=1.65$ ), while its squared term is insignificant. But, BIC' does not prefer this model over the baseline. Exports and net trade are significant for the squared but not the main term. At higher levels, exports and net trade are associated with declining social security transfers. Net migration is significantly positive in the main term, and significantly negative in the squared term. Thus, this variable alone has a positive and negative curvilinear effect that suggests globalization causes convergence. Exports, trade openness, and imports are positive in the main term and negative in the squared term. Though near significant, one or both of these coefficients fails to reach significance. Importantly, the non-findings on trade openness (for both dependent variables) contrast with recent research that found curvilinear effects (Garrett 1998a; Hicks 1999).

## 4.4 Final Models

In Table 5, we present final models for the two dependent variables. Rather than throwing together all significant coefficients from Tables 3 and 4, we selectively include the most important globalization variables. With the baseline, we now include two measures of advantage: net trade and net trade squared; two measures of openness: FDI openness and the capital accounts liberalization index; and a curvilinear specification of globalization threat: net migration and net migration squared. In analyses not shown, we considered the collinearity and redundancy among these and other variables. This selection of measures represents the optimal specification of globalization's effects. In Table 5, we now also present the standardized coefficients.<sup>19</sup>

Focusing on the first models for both dependent variables, all of the included globalization indicators are significant. Comparing these results with Tables 3 and 4, the effects are generally robust – thus including the globalization indicators together does not bias their effects. The only departures are for government expenditures. Now, and like social security transfers, the capital accounts liberalization index is significantly positive, and net migration has a significant curvilinear (positive and negative) effect. The baseline controls are consistent with the fourth model in Table 2, though some variables are now significant that were not before: female labor force participation, unemployment and labor power for government expenditures; and constitutional structure, voter turnout, and manufacturing and agricultural employment for social security transfers. For one or both models, a few controls are insignificant, but the models would not appreciably improve with their omission. BIC' very strongly prefers these models over any of the models in the prior tables.

Net trade, despite being a measure of globalization advantage, constrains the welfare state (in the main and squared term for government expenditures and in the squared term for social security transfers). One measure of globalization openness, FDI openness decreases both dependent variables, while the other, capital accounts liberalization, increases both.

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<sup>19</sup> One of the omissions we have noticed in the welfare state literature is that most quantitative studies do not discuss the magnitude of effects. Typically, authors solely concentrate on statistical significance and neglect substantive significance. Most studies do not calculate standardized coefficients, though a few offer substantive representations of the effects of key variables (Burgoon 2001). To make claims about the relative evidence for various theories, it is essential to assess the substantive, and not only statistical, significance displayed by standardized coefficients.

Net migration, a measure of globalization threat, has a positive turning negative curvilinear effect, possibly suggesting convergence. On the one hand, these coefficients provide support for all three of the theories of globalization's effects. In fact, globalization appears to have positive, negative *and* curvilinear effects. On the other hand, the advantage, openness and threat measures do not appear to have effects consistent with the three theories. Also, since these theories contrast with each other (and evidence for one contradicts the others), it is difficult to claim that any theory is truly supported. Nevertheless, since globalization does affect the welfare state, these results contrast with previous claims that globalization is an insignificant influence.

These globalization effects are statistically significant, but relatively small. For government expenditures, all the globalization standardized coefficients are less than .1 in absolute value. Summing the absolute values of all six indicators, their cumulative effect is smaller than the effect of manufacturing and agricultural employment. This supports Iversen and Cusack's (2000) argument that deindustrialization was more important than globalization in explaining welfare state variation. Also, many control variables have larger effects than any one globalization indicator: right power, authoritarian legacy, GDP per capita, constitutional structure, elderly population, labor power, military spending, and unemployment (in order of magnitude). Despite globalization's significance, other causes have the most influence on government expenditures.

With the exception of net trade's main term, the effects of globalization are larger for social security transfers than for government expenditures. But, the effects remain relatively small. Only the capital accounts liberalization index has a standardized coefficient larger than an absolute value of .1. Again, many controls have larger effects than any globalization indicator: GDP per capita, year, labor power, manufacturing and agricultural employment, elderly population, constitutional structure, and authoritarian legacy (in order of magnitude). Non-globalization causes have the greatest impact on social security transfers as well.<sup>20</sup>

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<sup>20</sup> Some other analyses warrant mention. Many scholars place the peak and onset of decline of the welfare state in the early 1980s. Though a later peak occurs in 1993 (see Figure 2), we estimated our final models for only 1984-1998 to see if globalization had more powerful negative effects. For government expenditures, capital accounts liberalization has a larger, more significant effect, net trade's main term is now insignificant and net migration's main term is larger and more significant.

Table 5 provides evidence for and against several welfare state theories. Consistent with new politics accounts, constitutional structure constrains while the size of the elderly population expands the welfare state. Consistent with the politics-as-usual (partisan and class politics) account, voter turnout, authoritarian legacy, labor power and right cabinet affect welfare states. Consistent with Iversen and Cusack (2000), deindustrialization triggers welfare state expansion. Also, there are some surprising results that do not clearly mesh with prior welfare state theories (i.e. female labor force participation -, GDP per capita -, unemployment -, and military spending +). These results suggest the continuing importance of flexibility and caution in theorizing the welfare state, and the reality that some variables have different effects in the more recent historical period. Ultimately, the results in Table 5 confirm the need for synthetic welfare state models that incorporate causal variables from multiple theories.

One obvious concern with the first models in Table 5 is that the controls might mediate globalization's effects. We might be obscuring globalization's indirect effects by including certain controls in the same models. The two most likely potential mediating controls are manufacturing and agricultural employment and labor power. If globalization contributes to deindustrialization and declining labor power, and since those two variables affect the welfare state, globalization might have indirect effects.<sup>21</sup> In Table 5's second models, we estimate reduced form models where we omit those two. Importantly, however, the second reduced form models do not provide evidence of greater globalization effects. Mostly, the effects of globalization indicators are similar in size and significance. Net trade and net migration do not affect the two welfare state measures in the reduced form models. Hence,

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For social security transfers, larger, more significant effects occur for net trade's square and capital accounts liberalization. With the exception of net trade for transfers, globalization does not have more powerful negative effects in the 1984-1998 period. Most results are robust if Ireland, Japan and Switzerland are omitted. None of the effects is different if Japan or Switzerland is dropped. If Ireland is dropped, nothing changes for social security transfers, but net trade's square is insignificant for government expenditures. If all three are dropped, net trade and its square are insignificant for social security transfers and net trade's square is insignificant for government expenditures.

<sup>21</sup> We appreciate that studies fail to provide much evidence that globalization actually has large causal effects on deindustrialization (Alderson 1999) and labor power (Scruggs and Lange 2002). But, we are trying to give the globalization effect the best opportunity to reach significance. We recognize that the logic of indirect effects may be problematic since globalization would be presumed to reduce both manufacturing and agricultural employment and labor power, while those two have direct effects on the welfare state in opposite directions.

these second models provide no evidence that globalization's effects operate indirectly through manufacturing and agricultural employment and labor power.

*Table 5: Final OLS-PCSE Models of Welfare State Measures in Seventeen Developed Democracies, 1975-1998 (N=380).*

	<i>Government Expenditures</i>		<i>Social Security Transfers</i>	
Net Trade	-.159** <b>-.053</b> (-2.40)	-.086 <b>-.029</b> (-1.20)	-.028 <b>-.019</b> (-.74)	-.003 <b>-.002</b> (-.07)
Net Trade <sup>2</sup>	-.020** <b>-.044</b> (-2.12)	-.027*** <b>-.061</b> (-2.71)	-.013** <b>-.056</b> (-2.41)	-.012** <b>-.053</b> (-2.26)
FDI Openness	-.214** <b>-.051</b> (-2.52)	-.179* <b>-.043</b> (-1.84)	-.136** <b>-.066</b> (-2.47)	-.140** <b>-.068</b> (-2.51)
Capital Accounts Liberalization Index	1.029** <b>.079</b> (2.25)	1.031** <b>.080</b> (1.99)	1.030*** <b>.160</b> (3.68)	.870*** <b>.136</b> (2.96)
Net Migration	.152* <b>.045</b> (1.75)	.155 <b>.046</b> (1.61)	.111** <b>.067</b> (2.32)	.107** <b>.065</b> (2.27)
Net Migration <sup>2</sup>	-.011** <b>-.035</b> (-2.38)	-.008* <b>-.025</b> (-1.77)	-.008*** <b>-.048</b> (-3.04)	-.007*** <b>-.043</b> (-3.03)
Constitutional Structure	-.891*** <b>-.206</b> (-3.46)	-1.364*** <b>-.316</b> (-5.04)	-.372** <b>-.174</b> (-2.02)	-.506*** <b>-.236</b> (-2.60)
Female Labor Force Participation	-.097* <b>-.043</b> (-1.83)	.028 <b>.012</b> (.58)	-.136*** <b>-.122</b> (-3.43)	-.081** <b>-.073</b> (-2.18)
Voter Turnout	.002 <b>.002</b> (.06)	.067** <b>.093</b> (2.56)	-.045** <b>-.128</b> (-2.25)	-.027 <b>-.076</b> (-1.45)
Elderly Population	.874*** <b>.206</b> (3.05)	.641*** <b>.151</b> (2.62)	.497*** <b>.237</b> (3.26)	.556*** <b>.268</b> (3.25)
Authoritarian Legacy	2.847*** <b>.268</b> (4.95)	1.208*** <b>.114</b> (2.70)	.859** <b>.163</b> (2.45)	.656** <b>.125</b> (2.20)
GDP Per Capita	-.001*** <b>-.253</b> (-2.82)	-.0002 <b>-.056</b> (-.64)	-.0004*** <b>-.297</b> (-2.88)	-.0003** <b>-.218</b> (-2.14)
Year	.087 <b>.066</b> (.56)	.269* <b>.205</b> (1.72)	.173** <b>.265</b> (2.12)	.195 <b>.299</b> (2.25)

Table 5 continued

Inflation	.063 <i>.030</i> (1.02)	.025 <i>.012</i> (.39)	.002 <i>.002</i> (.07)	-.003 <i>-.003</i> (-.11)
Unemployment	-.266* <i>-.102</i> (-1.85)	.274** <i>.104</i> (2.14)	-.096 <i>-.074</i> (-1.12)	.023 <i>.017</i> (.31)
Military Spending	.829** <i>.111</i> (2.18)	1.628*** <i>.217</i> (4.54)	.495** <i>.134</i> (2.43)	.553** <i>.149</i> (2.57)
Mfg. & Agric. Employment	-.712*** <i>-.559</i> (-6.10)		-.155** <i>-.246</i> (-2.33)	
Labor Power	.043* <i>.134</i> (1.92)		.041*** <i>.253</i> (3.51)	
Right Cabinet	-.232*** <i>-.296</i> (-4.35)	-.301*** <i>-.385</i> (-6.26)	-.053** <i>-.138</i> (-2.10)	-.096*** <i>-.248</i> (-4.10)
Constant	69.806*** (7.58)	24.776*** (4.39)	25.767*** (4.32)	14.889*** (4.28)
R <sup>2</sup>	.811	.787	.608	.590
BIC'	-520.019	-486.673	-242.520	-238.195

\*\*\* p&lt;.01

\*\* p&lt;.05

\*p&lt;.10

Notes: Each cell contains the unstandardized coefficient, the standardized coefficient in bold and italics, and the t-scores in parentheses. Models include a first-order serial autocorrelation correction. All independent variables are lagged one year.

## 4.5 Sensitivity Analyses

In Table 6, we decompose the full sample into European and non-European countries and liberal/uncoordinated and non-liberal/coordinated regimes.<sup>22</sup> Previous studies have contended that globalization is most important to the welfare state in either European countries or liberal regimes. Given the small number of cases and varying descriptive statistics (complicating comparisons of coefficients) across our sub-samples, these results should be read with caution. Several controls occasionally have significant effects in different and unexpected directions. This suggests the instability of coefficients and effects upon decomposing the sample into smaller sub-samples.

<sup>22</sup> We code Australia, Canada, Ireland, the United Kingdom, and the United States as liberal/uncoordinated.

Table 6: Sensitivity Analyses Decomposing Sample for Final OLS-PCSE Models

	<i>Government Expenditures</i>				<i>Social Security Transfers</i>			
	European	Non-European	Liberal	Non-Liberal	European	Non-European	Liberal	Non-Liberal
Net Trade	-.146** (-2.00)	-.509*** (-3.46)	-.337** (-2.38)	-.210*** (-2.66)	-.022 (-.52)	.002 (.02)	-.017 (-.36)	-.070 (-1.48)
Net Trade2	-.020** (-2.15)	.051 (1.01)	-.008 (-.47)	-.015 (-1.34)	-.015*** (-2.92)	-.005 (-.24)	-.017*** (-3.15)	-.008 (-1.18)
FDI Openness	-.231** (-2.56)	-1.094*** (-4.97)	-1.090*** (-5.88)	-.123 (-1.29)	-.147** (-2.36)	-.415*** (-4.44)	-.490*** (-7.06)	-.057 (-.89)
Capital Accounts Liberalization Index	.682 (1.32)	3.337*** (3.31)	.208 (.35)	1.965*** (3.34)	.954*** (2.99)	.580 (1.23)	.495** (2.41)	2.146*** (5.55)
Net Migration	.236** (2.34)	.034 (.11)	-.078 (-.45)	.403*** (3.49)	.182*** (2.95)	-.036 (-.27)	.050 (.80)	.291*** (3.84)
Net Migration2	-.017*** (-3.15)	-.005 (-.20)	.011 (.61)	-.023*** (-3.82)	-.011*** (-3.63)	.001 (.11)	-.004 (-.70)	-.016*** (-3.86)
Constitutional Structure	-.699** (-2.20)	-2.661*** (-2.77)	-4.598*** (-4.27)	-1.112*** (-3.44)	-.084 (-.43)	1.535*** (3.33)	.537 (1.44)	-.690*** (-3.30)
Female Labor Force Part.	-.179*** (-3.48)	.590*** (4.47)	.103 (.75)	-.090* (-1.69)	-.164*** (-4.34)	.143** (2.28)	.127*** (2.60)	-.113*** (-3.13)
Voter Turnout	-.019 (-.44)	-.172*** (-2.81)	-.179*** (-2.64)	-.041 (-.92)	-.012 (-.41)	-.050* (-1.67)	-.067*** (-2.62)	-.077** (-2.54)
Elderly Population	.339 (1.08)	-.493 (-.97)	2.922*** (3.30)	.988*** (3.13)	-.263 (-1.14)	-.278 (-.98)	.271 (.96)	.279 (1.56)
Authoritarian Legacy	4.416*** (6.31)	-9.283*** (-3.43)	-23.590*** (-3.71)	3.575*** (5.92)	1.430*** (3.20)	.986 (.77)	4.047* (1.92)	1.027*** (3.14)
GDP Per Capita	-.001* (-1.81)	-.001*** (-3.95)	-.0005 (-1.36)	-.001*** (-3.86)	-.0003* (-1.80)	-.001*** (-5.54)	-.0005*** (-3.96)	-.001*** (-4.52)
Year	-.033 (-.21)	.686** (2.43)	.149 (.85)	.040 (.27)	.060 (.69)	.477*** (3.74)	.177*** (3.07)	.168** (2.12)
Inflation	.068 (.98)	.092 (.91)	.153* (1.74)	.053 (.66)	-.002 (-.06)	.006 (.13)	.036 (1.11)	-.037 (-.85)
Unemployment	-.360** (-2.25)	.695** (1.97)	.062 (.25)	-.262 (-1.55)	-.169* (-1.73)	-.155 (-.99)	-.060 (-.73)	-.118 (-1.26)
Military Spending	1.348** (2.40)	-.255 (-.41)	.550 (1.01)	1.659*** (2.90)	.440 (1.46)	-.580** (-2.01)	-.558*** (-2.69)	.955*** (3.05)
Mfg. & Agric. Employment	-.938*** (-7.33)	.942** (2.14)	-.036 (-.15)	-.910*** (-7.35)	-.345*** (-4.16)	.085 (.44)	-.070 (-.83)	-.259*** (-4.03)
Labor Power	.102*** (4.22)	-.042 (-.40)	.030 (.31)	.046* (1.76)	.075*** (5.13)	-.033 (-.68)	-.069** (-1.97)	.026* (1.68)
Right Cabinet	.012 (.18)	-.194* (-1.75)	-.376*** (-4.12)	-.092* (-1.83)	.104*** (2.88)	-.111** (-2.09)	-.034 (-1.08)	.004 (.14)
Constant	83.095*** (7.51)	23.876 (1.15)	78.771*** (4.97)	80.258*** (7.47)	38.369*** (4.96)	11.723 (1.26)	9.830 (1.63)	38.821*** (5.72)
R <sup>2</sup>	.814	.918	.898	.816	.591	.840	.922	.635
BIC'	-374.590	-146.818	-522.720	-87.528	-148.709	-84.136	-596.242	-16.460
N	287	93	276	104	287	93	276	104

\*\*\* p&lt;.01 \*\* p&lt;.05

\*p&lt;.10

Notes: Each cell contains an unstandardized coefficient and t-score in parantheses. Models include a first-order serial autocorrelation correction. All independent variables are lagged one year.

These results provide little support that globalization has fundamentally different consequences across these sub-samples. Though some differences appear across sub-samples, there is no consistent pattern in globalization's effects. Net trade squared significantly reduces government expenditures in European countries, significantly reduces social security transfers in European *and* liberal regimes, but is not significant in the other models. FDI openness significantly reduces both dependent variables in liberal regimes and in European and non-European countries, *but* is insignificant in non-liberal regimes. Capital accounts liberalization significantly increases government expenditures in non-European countries and non-liberal regimes, *but* significantly increases social security transfers in European countries and both liberal and non-liberal regimes. For both dependent variables, net migration and its square have significant positive and negative effects in European countries and non-liberal regimes. Several variables are significant across sub-samples and dependent variables, while some are now insignificant after decomposition. Ultimately, the effects of some globalization indicators appear to be sensitive to sample decomposition, but our results do not support claims that globalization consistently matters most (or only) in liberal regimes or European countries.

Finally, in Table 7, we present analyses of four alternative dependent variables. We will not discuss all of the coefficients, though interestingly, several key control variables are occasionally insignificant. Our purpose is merely to confirm that globalization does not have fundamentally different effects on alternative dependent variables. When significant, the globalization variables are in the same direction as in previous tables. Net migration and its square have a positive and negative curvilinear effect on government revenue. Four of the six globalization variables significantly affect social welfare expenditures: net trade and its square are negative, FDI openness is negative and capital accounts liberalization is positive. At the same time, each of the globalization coefficients is not significant for three of the four dependent variables. Hence, Table 7 provides less evidence that globalization is a crucial influence on welfare states. Globalization's effects are more limited for these alternative dependent variables.



Table 7: Sensitivity Analyses of Alternative Dependent Variables for Final OLS-PCSE Models

	<i>Government Revenue as % of GDP</i>	<i>Social Welfare Expend. as % of GDP</i>	<i>Public Employment as a % of Civilian Employment</i>	<i>Public Health Spending as % of Health Spending</i>
Net Trade	-.063 (-1.14)	-.151** (-2.27)	.025 (1.12)	.016 (.19)
Net Trade2	-.005 (-.65)	-.017* (-1.93)	.002 (.55)	-.0001 (-.01)
FDI Openness	.028 (.38)	-.104* (-1.80)	-.019 (-.73)	.118 (1.22)
Capital Accounts Liberalization Index	.424 (1.08)	.967*** (3.14)	-.147 (-1.15)	-.448 (-.80)
Net Migration	.143** (1.98)	.054 (.77)	.018 (.73)	.148 (1.53)
Net Migration2	-.013*** (-2.83)	.001 (.37)	-.001 (-.66)	-.002 (-.39)
Constitutional Structure	-1.076*** (-4.43)	-.634*** (-3.42)	-.303*** (-3.12)	-3.036*** (-7.13)
Female Labor Force Participation	.033 (.67)	-.003 (-.09)	.214*** (9.87)	.217*** (3.01)
Voter Turnout	.009 (.37)	-.047** (-2.05)	.023** (2.10)	.127*** (2.82)
Elderly Population	1.231*** (6.05)	1.005*** (5.05)	.472*** (5.57)	1.144*** (3.18)
Authoritarian Legacy	.332 (.65)	.635 (1.32)	-.196 (-.96)	.174 (.23)
GDP Per Capita	-.0002 (-1.40)	-.001*** (-3.19)	.0001* (1.70)	-.001** (-2.56)
Year	-.022 (-.21)	.284*** (2.60)	-.182*** (-4.17)	-.200 (-1.31)
Inflation	-.049 (-1.15)	.048 (.96)	.009 (.75)	.062 (1.24)
Unemployment	-.233** (-1.96)	-.054 (-.58)	-.072* (-1.87)	-.024 (-.16)
Military Spending	-.053 (-.19)	-.019 (-.07)	.091 (.67)	-.600 (-1.16)
Mfg. & Agric. Employment	-.321*** (-3.89)	-.255*** (-3.24)	-.166*** (-5.12)	-.038 (-.33)
Labor Power	.042** (2.45)	.042*** (2.85)	.008 (1.05)	-.024 (-.87)
Right Cabinet	-.236*** (-5.85)	-.104*** (-3.77)	-.113*** (-7.07)	.041 (.71)
Constant	44.575*** (6.02)	26.183*** (3.96)	.245 (.09)	64.966*** (7.11)
R <sup>2</sup>	.489	.811	.776	.902
BIC'	-604.261	-382.285	-437.658	-771.350
N	380	294	368	380

\*\*\* p&lt;.01

\*\* p&lt;.05

\*p&lt;.10

Notes: Each cell contains an unstandardized coefficient and t-score in parentheses. Models include a first-order serial autocorrelation correction. All independent variables are lagged one year.

## 5 Discussion

Our study comprehensively examines the consequences of economic globalization for the welfare state. We now review the evidence for the aforementioned theories. First, we provide evidence that some globalization indicators cause an expansion in the welfare state. Most influentially, Quinn's (1997) index of capital accounts liberalization index triggers an expansion of the welfare state (as well as current accounts liberalization). Countries that are more legally open to international economic transactions tend to have more extensive welfare states. Also, net migration (in the main term) initially causes an expansion of the welfare state.

Second, we provide evidence that globalization causes a welfare state reduction. However, we are skeptical that globalization generally causes a welfare state crisis, and it is unlikely that language of crisis is the best way to frame recent welfare state trends. While the affluent democracies clearly experienced increasing globalization, government expenditures and social security transfers were remarkably stable. Nevertheless, several globalization indicators have significant negative effects. Net trade (at least in the squared term), FDI openness, and net migration squared all cause welfare state reductions. Since net trade has been relatively constant over time, and FDI openness and net migration have been rising, our study provides evidence that globalization is actually causing modest welfare state retrenchment. At the same time, globalization is probably not responsible for massive retrenchment or crisis since the effects are quite small.

Third, our study provides limited evidence that globalization has curvilinear effects or that globalization triggers welfare state convergence. Our study contradicts recent studies that found that trade and investment openness have curvilinear (positive and negative) effects on social welfare expenditures (Garrett 1998a; Hicks 1999). The only variable that has the expected positive and negative curvilinear effects is net migration. Given our concerns with how net migration is measured (see footnote 15), this conclusion should be taken with caution.

Fourth, given globalization's significant effects, it seems premature to dismiss globalization's influence. Unlike the many skeptics, we find that globalization does matter. Also, since most globalization indicators do not significantly affect the welfare state, our study illustrates the necessity of scrutinizing many different facets of globalization. Relying on previously established summary measures like trade openness may lead to an incomplete

or inaccurate view of how globalization affects the welfare state. One of the reasons that many might have dismissed globalization is that they failed to dig deeply enough into the different indicators and measurements of globalization. Nevertheless, our conclusion that globalization has relatively small effects suggests that other welfare state theories probably are more useful.<sup>23</sup>

Ultimately, we provide evidence for each of the theories of globalization's consequences for the welfare state: positive, negative, curvilinear and insignificant. This is surprising given that these theories seemed irreconcilable. How can one interpret such varying effects for globalization? We offer two interpretations. First, different globalization indicators may have contrasting effects since globalization is a multi-faceted phenomenon that may actually have contradictory or offsetting consequences in its various dimensions (Guillén 2001). Thus, when scholars argue that globalization has certain effects on the welfare state, it is essential to be specific about which aspects of globalization have which effects. Simply put, distinct globalization indicators appear to have distinct effects for the welfare state. Second, different globalization indicators may have contrasting effects because states anticipate the consequences of globalization. For example, FDI openness has negative effects while capital accounts liberalization has positive effects. Potentially, states raise social spending at the same time they liberalize capital accounts as anticipatory compensation (Garrett 1998a), and then when FDI increases, states are forced to contract the welfare state. Capital accounts and current accounts liberalization appear to have the only unambiguously linear positive effects, and most other significant globalization effects are negative. There appears to be a difference between the effects of state policies to globalize the economy and the effects of actual increased international economic exchange.

In addition to scrutinizing globalization, our study contributes to broader welfare state debates. As analysts of earlier periods recognized (Huber and Stephens 2001a; Hicks 1999), welfare state models warrant revision in the post-development globalization era. The core party variables of Huber and Stephens' power constellations approach are not significant, especially after controlling for deindustrialization and labor power. Like the new politics account, we find that constitutional structure and the size of the elderly

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<sup>23</sup> Also, our results provide little evidence that effects of globalization are systematically and consistently different or only important in liberal/uncoordinated regimes or European countries.

population have substantial influence on welfare state variation. At the same time, consistent with the politics-as-usual view, we find that class politics continue to exert tremendous pressure on welfare states. Unlike Huber and Stephens (2000, 2001a) and Pierson (1994, 1996), we find that partisan differences remain salient for the welfare state in the globalization era. Like Allan and Scruggs (2004), we find that it is now right cabinet, not left or Christian Democrat, that influences welfare state variation. Finally, we partially support Iversen and Cusack's (2000) conclusion that deindustrialization has a crucial impact on the welfare state, one that is more important than globalization. Yet, we find that deindustrialization is more important for government expenditures than social security transfers. Ultimately, our study provides evidence for several welfare state theories. Synthetic, multi-causal models remain the best way to explain the welfare state.

This study suggests the need for future research in at least two directions. First, scholars should continue to explore alternative measures of the welfare state. Most of the past literature – including studies claiming globalization effects – has relied on these general measures. To engage the debates in the existing literature, it remains valuable to analyze government expenditures and social security transfers. Furthermore, our sensitivity analyses reveal that globalization has similar, if less robust, effects for alternative dependent variables.<sup>24</sup> Ultimately, however, we appreciate that these two general measures are not perfect measures of the welfare state. To our knowledge, a similar comprehensive study of globalization's effects has not been done with recent alternative measures. It may even be worthwhile to analyze the effects of globalization on a more broadly conceptualized welfare state, including “private” social benefits (Hacker 2002; Seeleib-Kaiser 2001). We encourage the further study of alternative welfare state measures, though as of yet, most novel alternatives are not publicly available.

Second, case studies continue to provide another valuable direction. Scholars would enhance the understanding of globalization by analyzing the local politics within individual welfare states. Such case studies might facilitate the study of other aspects (i.e. political, legal, and cultural) of globalization and the interconnections between domestic politics and

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<sup>24</sup> Moreover, research suggests that among welfare state measures, government expenditures and social security transfers have some of the most powerful effects on inequality and poverty (Bradley et al. 2003; Brady 2003; Moller et al. 2003). To our knowledge, by contrast, proponents of novel alternatives have not demonstrated greater predictive validity for inequality and poverty.

globalization. Blyth (2002), for example, demonstrates that Swedish policymakers socially constructed globalization and the need to be internationally competitive as inevitable forces that necessitate welfare state retrenchment and privatization. Even though “actual” globalization has modest effects, it may still operate as a socially constructed political tool facilitating welfare state change (Cox 2001; Schmidt 2002; Seeleib-Kaiser 2001). One byproduct of our analyses is that there may be some interesting, but unexplored, dynamics within Ireland, Japan, and the Netherlands. Generally, welfare states maintained stable spending levels during this period of rising globalization. However, in Ireland and the Netherlands social security transfers notably contracted as their economies became even more globalized in the 1990s. Japan reduced social security transfers as it actually became less globalized. We encourage others to explore how globalization is shaping welfare states in these and other case studies.

In sum, our study provides new evidence on the relationship between globalization and the welfare state in the globalization era. Most importantly, globalization does not have one overall effect on the welfare state: different facets of globalization have different effects, in different directions. We suggest globalization does matter, just not as much as political and other economic causes of welfare state variation. We encourage more research on globalization, but suggest a more precise, refined and nuanced understanding of how globalization shapes the welfare state.

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**Appendix I: Correlation Matrix for Main Variables in Analyses (N=380).**

Panel A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1) Govt. Exp.																	
2) Social Sec. Transfers	.83																
3) Left Cabinet	.52	.37															
4) C.D. Cabinet	.27	.42	.02														
5) Union Density	.49	.24	.65	-.15													
6) Const. Structure	-.59	-.50	-.56	-.26	-.63												
7) Female Labor Force Part.	.07	-.12	.50	-.18	.28	.01											
8) F.L.F.P.* Left Party	.19	.14	.25	.10	.24	-.28	.03										
9) Voter Turnout	.44	.26	.36	.06	.49	-.52	-.27	.17									
10) Elderly Population	.51	.47	.69	-.06	.39	-.38	.35	.09	.19								
11) Strikes	-.01	.00	.05	.04	.10	-.00	.06	.01	.02	-.02							
12) GDP Per Capita	-.16	-.13	.03	.02	-.22	.45	.52	-.08	-.50	.15	.06						
13) Year	.06	.13	.17	.11	-.03	.04	.36	-.01	-.23	.35	.16	.74					
14) Inflation	-.04	-.21	-.08	-.16	.14	-.11	-.19	.12	.22	-.22	-.12	-.57	-.73				
15) Unemployment	.28	.21	-.20	.04	.09	-.05	-.16	.01	.05	-.05	.17	.03	.38	-.24			
16) Military Spending	.04	-.00	-.14	.01	-.28	.32	-.02	-.06	-.19	.02	-.07	-.07	-.31	.27	.11		
17) Mfg. and Ag. Emp.	-.23	-.06	-.07	-.26	.04	-.15	-.36	-.04	.20	-.04	-.13	-.62	-.61	.43	-.56	-.20	
18) Labor Power	.49	.39	.74	-.06	.84	-.63	.35	.23	.39	.50	.05	-.17	-.06	.04	-.22	-.33	.22
19) Right Cabinet	-.61	-.41	-.38	-.14	-.67	.51	.01	-.30	-.33	-.23	.04	.30	.26	-.33	-.13	.03	-.03
20) Inward FDI	.10	.03	.10	.24	.06	-.08	-.01	.06	.03	.06	.06	.20	.38	-.22	.35	-.03	-.52
21) Inward PI	.06	.05	.04	-.01	.07	.06	.07	-.14	-.01	.13	-.01	.26	.38	-.31	.19	-.16	-.27
22) Net Investment	-.04	-.13	-.05	-.22	.09	.07	-.00	-.15	.15	-.23	.01	-.12	-.14	.16	.03	.00	.09
23) Exports	.50	.48	.33	.35	.39	-.55	-.20	.13	.27	.27	-.01	-.14	.15	-.20	.26	-.25	-.18
24) Net Trade	.19	.23	.20	.28	.19	-.25	.09	.14	-.09	.18	.10	.19	.45	-.45	.27	-.31	-.29
25) Net Globalization	.13	.09	.12	.05	.23	-.15	.06	-.00	.06	-.04	.09	.06	.26	-.24	.26	-.26	-.17
26) FDI Openness	.17	.18	.15	.42	-.01	-.11	.09	.12	-.11	.18	.05	.31	.46	-.31	.24	-.03	-.54
27) Investment Openness	.10	.11	.09	.15	.04	-.01	.06	-.03	-.06	.23	.00	.33	.49	-.39	.25	-.15	-.42
28) Trade Openness	.51	.47	.32	.33	.38	-.55	-.22	.12	.29	.27	-.02	-.17	.11	-.16	.25	-.22	-.16
29) Total Globalization	.47	.45	.31	.33	.35	-.49	-.18	.10	.24	.29	-.02	-.07	.21	-.24	.28	-.23	-.24
30) Capital Accounts Liberal.	.16	.30	-.06	.16	-.21	.29	.09	-.09	-.33	.32	.06	.53	.56	-.51	.38	.16	-.46
31) Current Accounts Liberal.	.01	.19	-.10	.18	-.30	.34	.13	-.12	-.42	.09	.06	.49	.51	-.55	.17	-.03	-.34
32) Outward FDI	.19	.25	.16	.48	-.07	-.11	.16	.14	-.20	.24	.04	.33	.43	-.33	.11	-.02	-.45
33) Outward PI	.04	.07	.05	.07	.03	.00	.00	-.03	-.05	.25	-.02	.27	.41	-.35	.21	-.15	-.31
34) Imports	.51	.47	.31	.31	.38	-.54	-.23	.11	.31	.26	-.03	-.20	.06	-.12	.23	-.20	-.13
35) Net Migration	-.12	-.13	-.04	-.01	-.18	.46	.13	-.08	-.14	-.12	.01	.45	.25	-.15	-.09	-.04	-.26

## Appendix 1 continued

Panel B	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
18) Labor																	
Power																	
19) Right Cabinet	-.60																
20) Inward FDI	-.14	-.02															
21) Inward PI	.01	.05	.41														
22) Net	.02	-.07	-.13	.30													
Investment																	
23) Exports	.34	-.47	.48	.20	-.24												
24) Net Trade	.16	-.14	.25	.06	-.27	.48											
25) Net	.15	-.17	.10	.29	.60	.20	.60										
Globalization																	
26) FDI	-.12	.01	.86	.38	-.35	.45	.33	-.02									
Openness																	
27) Investment	-.03	.06	.69	.85	-.19	.41	.23	.03	.71								
Openness																	
28) Trade	.34	-.48	.48	.20	-.22	.996	.40	.14	.43	.40							
Openness																	
29) Total	.29	-.41	.58	.37	-.24	.97	.41	.14	.55	.59	.98						
Globalization																	
30) Capital	-.26	.09	.27	.20	-.23	.14	.33	.08	.39	.35	.11	.18					
Accounts Liberal.																	
31) Current	-.26	.21	.23	.26	-.15	.01	.38	.19	.37	.34	-.03	.06	.75				
Accounts Liberal.																	
32) Outward FDI	-.08	.03	.59	.28	-.46	.34	.32	-.12	.92	.60	.32	.42	.40	.42			
33) Outward PI	-.01	.09	.56	.66	-.46	.40	.24	-.19	.55	.91	.40	.56	.31	.27	.44		
34) Imports	.34	-.48	.47	.20	-.20	.98	.31	.08	.42	.39	.99	.97	.08	-.07	.30	.39	
35) Net Migration	-.20	.16	.11	.16	.15	-.12	-.03	.10	.12	.11	-.12	-.08	.25	.29	.11	.01	-.12