

The determinants of foreign aid: do socialist welfare states give more foreign aid than others by conditioning public opinion?

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« The ongoing debate over the foreign aid regime remains trapped in something of an intellectual vacuum given the lack of scholarly understanding of the determinants of foreign aid programs ».

(Schraeder, Taylor et al. 1998)

Abstract

Lumsdaine (1993) and Noël and Thérien (1995) argue that socialist welfare states give more foreign aid than other types of welfare states. Socialist welfare states are seen as institutionalised values of distributive justice. But as institutions, they also said to re-transmit these values and have a conditioning effect on policy makers and public opinion. This paper tests these hypotheses with pooled cross-sectional time-series analysis based on new dataset that was previously unavailable. The analysis in this paper casts doubts over their original findings and theoretical framework.

Key words

welfare states, public opinion, foreign aid

Résumé

Les études menées par Lumsdaine (1993) et Noël et Thérien (1995) montrent que les États-providence socialistes fournissent plus d'aide publique au développement que les autres types d'État-providence. Les États-providence sont généralement considérés comme l'institutionnalisation des valeurs de la justice distributive. Mais en tant qu'institutions, ils sont également sensés transmettre ces valeurs et influencer les dirigeants politiques et l'opinion publique. Cet article met à l'épreuve cette hypothèse grâce à une analyse de régression qui s'appuie sur une nouvelle base de données, indisponible jusqu'à ce jour. Cette analyse remet en question les résultats et le cadre théorique de Lumsdaine et Noël et Thérien.

Mots-clés

État-providence, opinion publique, aide publique au développement

INTRODUCTION

This is a study of comparative politics. It looks at the determinants of foreign aid in a cross-national perspective. It covers the second half of the post World War II era, from 1970-1980 to 2005. It joins insights from the study of international relations, socio-economics, democratic theory and the study of public opinion. The main question in this study is this: do socialist welfare states give more foreign aid than others by conditioning public opinion?

Knowledge about the determinants of foreign aid levels is important in the light of persisting, deep, global poverty. More than half of the world's people live on less than 2\$ per day, purchasing power parity. Many of them do not have access to clean drinking water, good healthcare or schools for their children, let alone gaming consoles and haute couture fashion. From a scholarly perspective, the main question of this paper is interesting and compelling. In an abundant foreign aid literature, the question of the determinants of foreign aid is only sparsely addressed and no satisfactory answer exists for why some countries give more foreign aid than others.

This study builds further on the existing literature with the revision and elaboration of theory and the analysis of a large dataset with previously unavailable data. In the theoretical section, literature on this subject is reviewed and existing explanations for the variation in foreign aid levels are presented. Based on this literature, two hypotheses about the causes of foreign aid are formulated.

The first hypothesis is that universalist welfare state institutions create public support for foreign aid. The second hypothesis is that strong support for foreign aid increases foreign aid levels. When hypothesis one and two are true, a third hypothesis can be derived, linking universalist welfare states to higher foreign aid. In the empirical section of this paper, these hypotheses are tested with a large, multi-year dataset for approximately 18 countries.

Literature review

The literature on foreign aid can be divided into three fields. First, a vast literature exists about the effects of foreign aid (see for example Masud and Yontcheva 2005; Rajan and Subramanian 2005), but a simple answer to the question: "does aid work?" seems hard to give. Part of the reason for this has been a severe lack of focus on development results. Both governments, multilateral institutions and NGOs have failed to account for the results of their aid efforts. Much is known on inputs, but little is known about outcomes and long-term effects. The Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008) are steps forward for both donors and recipients to look better and more systematically at the concrete results of development efforts.

The second field in the literature on foreign aid looks at the allocation or distribution of foreign aid budgets. Paraphrasing the title of a recent study (Alesina and Dollar 2000), the following question is asked: “who gives foreign aid to whom and why?” The object of inquiry in these studies is how donors distribute their funds. Do former colonies, the poorest countries, strategic allies or others receive the largest share of their foreign assistance? The independent variables in these models are aspects of recipient states. Recent studies assessed whether recipient needs (Trumbull and Wall 1994; Alesina and Dollar 2000; Berthélemy 2006; Nunnenkamp and Thiele 2006) or recipients’ respect for human rights and democracy are the main determinants for aid allocation. Other studies have compared French , or Japanese aid allocation in detail .

Most of these studies also seek to answer the question whether foreign aid is motivated by self-interest or humanitarian concerns . Pratt calls this opposition “international realism” versus “humane internationalism”.

In an international political realist perspective, states are primarily driven by the desire for military and economic power. In the neo-realist framework, foreign policy is not the result of internal power struggle and policy formulation, but a reaction to systemic features of the external state system . For Morgenthau for example, much of foreign aid “is in the nature of bribes”. Morgenthau then criticises foreign aid as a highly inefficient form of buying political influence, since a pervasive system of ‘make believe’ is required to make believe that economic development is really pursued. In a pure realist perspective, there is no possibility of people in power striving for the ideal of economic development of underdeveloped states.

In contrast, the liberal idealist or Wilsonian position claims that states can (or even should) make their internal philosophy the goal of their foreign policy. This is deemed *utopian* by early realist thinkers, who denote attempts in this domain as a misunderstanding of the underlying conflicts of interest . In contrast to realism, the liberal position sees internal forces as the main origins of foreign policy. In this tradition, explanations for variations in relative levels of foreign aid are found *inside* the states in question, in the groups, parties and institutions of that state. The third field of literature on foreign aid inherently takes this position.

The third and smallest field of the foreign aid literature looks at the determinants of foreign aid and compares donor aid *effort*. Why do some donors give more aid than others? The main object of inquiry in these studies is the level of foreign aid in donor countries. These studies look at aspects of donor states rather than aspects of recipient states. Several studies have hypothesised and (partly) shown that domestic welfare state generosity correlates positively with relative levels of foreign aid . However, Imbeau notes that institutional inertia is the main explanation for aid levels, a finding that is confirmed by Breuning and Ishiyama for the dispersion of aid. The most pervasive (and only) cross-sectional time-series analysis of the determinants of foreign

aid finds “no evidence of an association between the generosity ratio [ODA/GDP]¹ and domestic pro-poor government spending, or that right-wing governments are more parsimonious than left-wing ones” .² These results contrast with the results found by Noël and Thérien, Lumsdaine and others. These contrasting results call for a closer look at this issue. In the following section, the rationale behind the link between welfare state generosity and ODA is examined in more detail.

Socialist welfare states and higher foreign aid spending

Lumsdaine provides the most detailed rationale for the link between domestic and international concerns for poverty. He argues that 1) foreign aid was largely a product of humanitarian ideas and values and that 2) these ideas and values found support in the domestic political arrangements and religious and moral traditions of the West. These ideas and values “issued an emphasis on international cooperation and a commitment to remedying poverty for humanitarian and egalitarian reasons” . In Lumsdaine’s theoretical framework, the level of foreign aid of a country is a function of the level of concern for poverty in that country.

Lumsdaine argues that at the domestic level, the concern for alleviating and reducing poverty, combined with the social and political dynamics of society, leads to social spending. At the international level, the concern for poverty combined with the dynamics of international power and organisation leads to foreign aid. Lumsdaine provides evidence that states with social-democratic traditions and strong support for domestic government assistance to poor people are more willing to provide foreign aid.

Lumsdaine’s data analysis shows that domestic social spending, social democratic party strength, public support and private voluntary contributions to international economic assistance all correlate with higher foreign aid levels. He also links the rise of the welfare state and its roots of support in domestic movements (humanitarian, labour and social democratic) to the rise of foreign aid. This effect of the welfare state on foreign aid is examined in closer detail by Noël and Thérien .

Noël and Thérien’s theoretical framework is similar to Lumsdaine’s. Noël and Thérien agree that “aid and welfare state policies express the same values” and they also understand these programs as “expressions of social values embedded in specific political institutions” . Noël and Thérien remark that “welfare programs cannot be reduced to a single spending or partisan logic and instead must be seen as lasting outcomes of social and political conflicts over distributive justice” . This explains

¹ See appendix for a full definition of Official Development Assistance (ODA).

² The authors operationalise pro-poor spending as “the share of government expenditure on subsidies and transfers in relation to total government spending”. They also proxy the totality of pro-poor stance by “the extent of income distribution egalitarianism that prevails in the donor country”. This totality of pro-poor stance is operationalised as “the share of income accruing to [the] poorest 20 per cent of the population” and alternatively by the Gini coefficient of income distribution.

their focus on *institutional* aspects of the welfare state, where other authors mainly looked at spending and partisan orientations.

Noël and Thérien compare the effect of social spending and partisan orientation and find no significant effect for partisan orientation on relative ODA levels.¹ However, they do find a significant effect for total and social spending from 1975 and 1980 onwards respectively.² They then use Esping-Andersen's welfare state attributes to assess the effect of welfare state institutions. They show that socialist welfare state attributes correlate strongly with aid levels, while liberal and conservative attributes do not. The rationale for this effect is that welfare states are "designed according to particular principles that were imposed though decisive conflicts over market and political processes".

According to Esping-Andersen, conflicts over market and political processes were resolved into three types of welfare states; a conservative, a liberal and a social-democratic regime. Noël and Thérien find no effect for liberal and conservative welfare states, but do find that the socialist attribute correlates strongly with ODA levels. The social value embedded in the social-democratic welfare state is *universality*: "social democratic welfare programs are seen less as complementary measures targeted toward selected groups than as embodiments of a shared conception of citizenship". Noël and Thérien claim that the presence of exactly this value causes higher foreign aid levels: "institutionalised principles such as universality function as causal mechanisms and help explain why welfare states act predictably in the international arena. Better than partisan dynamics, or public opinion, such principles capture fundamental aspects of a country's politics. As such, they provide useful insights to link domestic and international behaviour".

Noël and Thérien do not claim that institutions can explain fully a country's evolution. They say that "major changes are likely to require partisan and collective actions aimed at transforming established values and principles". But when principles such as universality "prevail" and become institutionalised, they function as "causal mechanisms". A similar argument is found in Hofstede, who argues that once culture is partly institutionalised, it means that young people exposed to these institutions will embrace parts of it. Institutional effects (on elites) have also been observed by Rohrschneider in the case of East and West Germany.

In reference to Cox, Noël and Thérien claim that "institutional factors capture the sociological dimension of political processes because they reproduce what, in a given society, stands as the legitimate or hegemonic consensus". Scharpf argues analogously

¹ Using data from Blais et al.

² Pearson's $r > 0.5$ in all cases. Total spending are "total current disbursements" in OECD national accounts (percentages of GNP). Social transfers combines "social security benefits" and "social assistance grants" in OECD national accounts.

and writes that “although institutions do not determine public policy, they shape actor constellations, actor preferences and the modes of interaction between actors”.

Both Lumsdaine and Noël and Thérien argue that concerns for poverty are the root cause of foreign aid programmes. Lumsdaine sees this concern transmitted into policy through policymaker beliefs, socio-political- and international organisation, and the rise of the welfare state. Noël and Thérien argue that values and principles of (distributive) justice institutionalised in the social democratic welfare state function as causal mechanisms that influence policy through public opinion. Based on this literature the following hypothesis is formulated:

Hypothesis 0: *universalist (socialist) welfare state institutions lead to higher foreign aid spending*¹

Socialist welfare states and higher support for foreign aid

In their 1995 article, Noël and Thérien make a first reference to the influence of institutionalised values and principles on public attitudes . In Noël and Thérien , the same authors examine more explicitly the link between welfare policies and public opinion on foreign aid.

They conclude, based on their earlier article and other studies, that principles institutionalized through social policies shape what political actors ‘consider to be morally defensible behaviour’. This implies that in countries with social-democratic traditions the public should value equality more strongly and be more sensitive to international redistribution . Their data analysis, based on aggregate Eurobarometer (1995) responses, shows that “when equality has been institutionalized as an important principle, the public acknowledges the results and support for foreign aid is high” .

For Noël and Thérien, values and principles capture fundamental aspects of a country's domestic politics . They argue that the way conceptions of justice are institutionalised in welfare states influence differently “internal debates and decisions” about foreign policy and development assistance. As a result, “public opinion is strongly mediated by the constraints and opportunities provided by institutionalised values and principles” . This leads to the following hypothesis:

Hypothesis 1: *universalist (socialist) welfare state institutions lead to higher public support for foreign aid*

Higher support for foreign aid and higher foreign aid spending

Lumsdaine’s data analysis leads him to conclude that high public support (partly) causes high foreign aid levels: “comparisons of aid funding levels and opinion data

¹ This hypothesis is called hypothesis 0 (not to be confused with the null hypothesis) for it is the basic hypothesis underlying the other two hypotheses elaborated in the following sections.

here suggest that the public's concerns about poverty played a part in the link. Countries with high levels of public support for foreign aid tended to give more aid, and were more disposed to raise the level and quality of aid spending and keep it high". The rationale for this effect is that the public's preference is transformed into policy through democratic processes. By definition, democracy implies at least some sort of relationship between public opinion and government policy .

Theorists disagree about the degree of influence from public opinion. Elitist democratic theory, found in the work of Schumpeter or Weber , sees democracy as the election of representative officials, who are then autonomous in their decision making and not sensible to public pressures. On the other hand, pluralist democratic theory as developed by Dahl and others takes account of 'intermediary groups' in the democratic process, such as community associations, religious bodies, trade unions, and so forth. These groups struggle for influence and power and seek to set and change the policy agenda. In pluralist theory, it is these groups that transform public opinion into policy. Extensive networks of NGO's, church groups and other civil organisations are active in the field of international solidarity and development. Their influence varies per country, but many are integrated in the policy process through lobbying, petitioning and consultation procedures. Apart from electoral pressure and partisan politics, it is through these organisations that public opinion is aggregated to influence decision makers

Whether the view of democracy is elitist, pluralist or a combination of the two is decisive for the hypothesis of an effect of public opinion on policy. Here, the possibility of an absence of an effect is left open, but the possibility of its presence is tested with the following hypothesis:

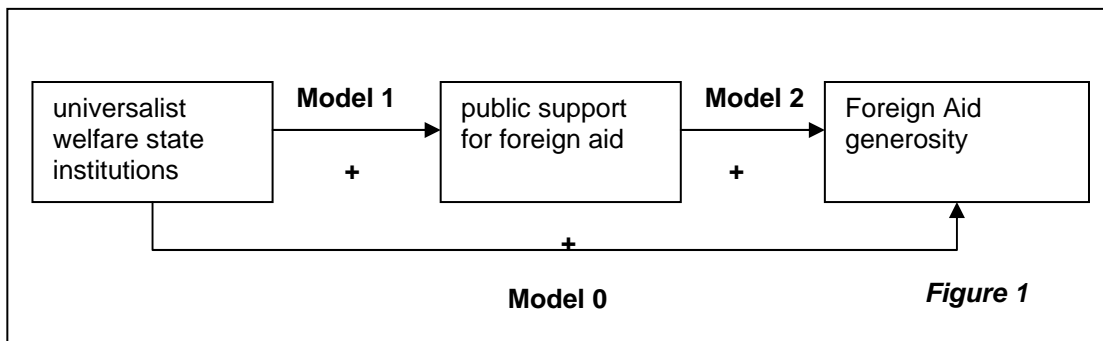
Hypothesis 2: *higher public support for foreign aid leads to higher foreign aid spending*

Empirical analysis

The research design, based on the theory and hypotheses described above, is summarised in figure 1. Models 0, 1 and 2 correspond to hypotheses 0, 1 and 2 respectively. Hypothesis 1 posits that universalist (socialist) welfare state institutions lead to higher public support for foreign aid. The plus sign indicates a positive relationship. Hypothesis 2 posits that higher public support for foreign aid leads to high foreign aid spending. Hypothesis 0 posits that universalist (socialist) welfare state institutions lead to higher foreign aid spending.

Model 0 can be deduced from models 1 and 2 as follows. In causal analysis, the relationships of model 1 and 2 are multiplicative. If *both* signs of model 1 and 2 are positive *or* negative, then model 0 will have a positive sign. The hypotheses are such that the positive relations of models 1 and 2 predict that model 0 will have a positive sign as well. If the sign of either model 1 or model 2 is negative, and the other is

positive, the resulting sign of model 0 is negative.¹ This latter result would be in conflict with the theory presented in the theoretical section of this paper.



In this section the hypotheses are empirically tested. First, Noël and Thérien’s cross-sectional analysis of model 0 is tested with additional welfare state indicators. Then, a cross-sectional time-series analysis of model 0 is presented to evaluate the robustness over time of the cross-sectional analysis. The methodology of this analysis is first explained and any variables not present in the cross-sectional model are described. Then, a cross-sectional time-series analysis of model 1 is presented. As before, any variables not present in the previous model are described. Finally, a cross-sectional time-series analysis of model 2 is presented. The analysis of each model is followed by a conclusion. Summary statistics of all the variables used can be found in the appendix.

Welfare States and Foreign Aid (Model 0) - Cross-Sectional analysis

Noël and Thérien have shown with cross-sectional regression analysis that socialist welfare state attributes have a positive effect on the level of foreign aid. In this section their analysis is complemented with additional welfare state indicators.

The dependent variable is foreign aid. It is operationalised as official development assistance (ODA) as a percentage of GNI.² In the results tables this variable is called ODAP. ODA statistics are kept by the Organisation for Economic Cooperation and Development (OECD). Relative rather than absolute ODA levels are examined to assess the generosity of states relative to income. ODA data are available for 22 countries.³ The data ranges between 1960-2005.

¹ Formally, let the three boxes of figure 2 be called X, Y and Z. The causal relationships are then represented by b, with in subscript the dependent and independent variable. Then, Model 0 = b_{ZX} , Model 1 = b_{YX} and Model 2 = b_{ZY} . Model 0 = Model 1 * Model 2, or $b_{ZX} = b_{YX} * b_{ZY}$.

² See the appendix for a full definition of ODA.

³ There are many references to ‘18’ or ‘22’ countries in this paper. In the appendix there is a list of countries that refers to either of these categories.

The main independent variable is socialist welfare state attributes. Esping-Andersen's original data and a replicated data set are used. To complement this single indicator, three other indices are used. These indices do not match the 'socialist world' perfectly, but arguably the postulated effect from socialist welfare state institutions on public opinion and foreign aid should also be present with these alternative indices. The variables are the following:

Socialist Welfare State Attributes

- EASOC. Esping-Andersen socialist welfare state attributes . Data are available for 18 countries for 1980.
- EASOCREP. Replicated Esping-Andersen socialist welfare state attributes . Data are available for 18 countries for 1980 and 2002.

Socialist scores represent one of the three dimensions of the Three Worlds of Welfare Capitalism, the seminal work by Esping-Andersen . The socialist model is defined in terms of universalism. A lower level of benefit differentials indicates higher universalism. Program universalism is measured as a percentage of the adult population eligible for sickness, unemployment and pension benefits, and the degree of equality in the benefit structure (universalism and egalitarian benefits) . The available data come from Esping-Andersen for 1980. Scuggs and Allen have replicated the scores for 1980 and 2002 based on public data sources .¹

Progressive Liberalism

- HKPLFULL. Hicks Kenworthy full progressive liberalism . Data are available for 18 countries for approximately 1990.

The progressive liberalism thesis is developed by Hicks and Kenworthy . It builds on Esping-Andersen's three worlds thesis, but also incorporates labour market and family policy. Their results lead them to believe that 'socialism' and 'liberalism' have become two extremes of one *dimension* rather than two separate *categories*. The former 'socialist' (or social democratic) category is represented on one end of an axis and is called 'progressive liberalism'. The former 'liberal' category is on the other end and is called 'neoliberalism' . The third world of welfare, "conservatism", is viewed as a second, but weaker dimension, representing "residual power out of the pre-capitalist past". The full analysis, "a thorough coverage of relevant aspects of welfare policies, uncompromised by concerns that measures might be so comprehensive as to incorporate some things that we would like them to predict" is used.

Decommodification

- LSGENROS. Lyle Scuggs benefit generosity index (replicated decommodification scores with author's preferred methodology) . Data are available for 18 countries. Data ranges from 1971 to 2003.

¹ The original data used by Esping Andersen are not public. Scuggs and Allen have followed the original methodology using comparable public data sources so that others can reproduce their results. They found rather large discrepancies with the original 1980 socialist scores. A discussion of these differences can be found below.

Decommodification is the granting of social labour rights: “if social rights are given the legal and practical status of property rights, if they are inviolable, and if they are granted on the basis of citizenship rather than performance, they will entail a decommodification of the status of individuals vis-a-vis the market. Decommodification occurs when a service is rendered as a matter of right, and when a person can maintain a livelihood without reliance on market. Decommodification is not solely captured by social expenditure levels, but also looks at eligibility rules and structures, income replacement levels and the range of entitlements .

Countries with high decommodification scores have generous welfare states. Although welfare state generosity is not the same as welfare state universalism, the effect on public perceptions and foreign aid can be expected to be the same. The decommodification index measures the granting of social labour rights in terms of pensions, unemployment and sick pay. In the theoretical framework described above, the level of generosity should be felt by citizens, and should lead them to support generosity towards others (including poor people abroad) the same way universalist welfare states do.

Social spending

- SOCX. Social expenditures SOCX . Data are available for 22 countries. Data ranges from 1980 to 2003.

The SOCX database contains indicators for aggregate social expenditure. The main social policy areas are old age, survivors, incapacity-related benefits, health, family, active labor market programmes, unemployment, housing, and ‘other social policy areas’.¹ Social spending shows how much a country spends on social programmes, but tells little about the effects on individual life chance. Nevertheless, it is an interesting variable to include because it gives as an overall image of a country’s social programmes. An additional advantage is that the data is from a reliable source and available for a long range of years.

Several control variables are added that influence both dependent and independent variables. Omitting these variables can lead to omitted variable bias leading to incorrect estimates of causal effects. The following control variables are therefore added:

Left Cumulative Cabinet Shares

- LTCABCUM. Left Cumulative Cabinet Shares . Data are available for 18 countries. Data ranges from 1960-2000

Left Cumulative Cabinet Shares are left seats as a percentage of seats held by all government parties from 1946 to the year of observation. Thérien and Noël have

¹ http://www.oecd.org/document/2/0,2340,en_2649_34635_31612994_1_1_1_1,00.html, accessed on 12-07-2007.

shown that leftist power has an effect on both foreign aid and socialist welfare state attributes.

- LPOP. Logged Population (OECD). Data are available for 22 countries. Data ranges from 1960-2005

Logged population is the natural log of the population in thousands. Small countries spend more on relative foreign aid and have larger welfare states. Because a well-grounded theory for this is not available, this is treated as an observed fact .

- LGDP. Logged GDP (OECD). Data are available for 18 countries. Data ranges from 1970-2000.

Logged GDP is the natural log of the Gross Domestic Product. This variable is added for the same reason as population.

Tables 1 and 2 show the cross-sectional OLS regression results for 1980 and 2000. In each model ODA as % GNI (ODAP) is the dependent variable. For each cross-section, the available operationalisations of welfare generosity for that period were used. All 1980 results are robust and maintain their strength under various alterations.¹

Table 1 - Model 0 regression results (OLS regression) with independent variables for 1980

	(a)	(b)	(c)	(d)
Dependent	F.odap	F.odap	F.odap	F.odap
easoc	0.098 (3.26)***			
easocrepe		0.044 (1.47)		
lsgenros			0.032 (3.62)***	
socx				0.022 (1.66)
ltcabcum	0.001 (0.17)	0.013 (1.68)	0.001 (0.20)	0.009 (1.10)
lpop	0.066 (1.48)	0.024 (0.46)	0.065 (1.53)	0.006 (0.11)
lgdp	0.007 (0.02)	0.198 (0.56)	-0.260 (0.88)	0.217 (0.62)
Constant	-0.651 (0.26)	-1.911 (0.60)	1.316 (0.52)	-2.099 (0.67)
Observations	18	18	18	18

¹ For 1980 models, single year ODA data was replaced with 5 and 10 year ODA averages. All significances hold for these models. Adjusted R-squares rise with 0.03 points for 5 year averages and 0.06 points for 10 year averages. The models were also ran without either lpop or lgdp to check for problems due to limited degrees of freedom. For models without lpop, all significances hold, but easoc drops from the 1% level to the 5% level. Adjusted R-squares drop 0.03 points for models with significant welfare state variables, but rise 0.03 points for models without significant welfare state variables. For models without lgdp, all significances hold and adjusted R-squares remain roughly the same. Ltcabcum becomes significant at the 10% level for model b.

	(a)	(b)	(c)	(d)
Adjusted R-squared	0.53	0.27	0.57	0.29

Absolute value of t statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

The explanatory power of Esping-Andersen’s original 1980 socialist scores is confirmed by the results in table 1. However, the replicated socialist scores do not perform as well as expected. This can be explained by Allan and Scruggs’ remark that Esping-Andersen used inconsistent coding for socialist scores. Furthermore, Scruggs and Allen note that universalism in the 1980s was higher for most countries than suggested by Esping-Andersen. In two countries the estimates are noticeably lower (Australia and Canada). Scruggs and Allen’s data further suggest much more equality in many countries and less variability than suggested in the original data. If Scruggs and Allen are right about the incorrectness of Esping-Andersen’s original socialist scores, this invalidates the empirical results of Noël and Thérien. However, it does not necessarily invalidate their theory. More equality and less variability across countries in the estimates makes the socialist scores less suitable indicators to demonstrate the theorised effect.

Decommodification shows up as a good explanation for relative ODA levels. The adjusted R² is even higher than for the original socialist scores. Social expenditures (SOCX) do not seem to have an effect on foreign aid levels. This could be explained by the ‘roughness’ of social expenditures. Social expenditures *per se* do not tell much about the effects on individuals or households. High social expenditures that are distributed on a corporatist basis do not yield the feeling of solidarity, equality and security that universalist welfare states or high decommodification scores are presumed to yield.

The results for the year 2000 regression models are shown in table 2.¹ These models are robust and maintain their strength under various alterations.²

¹ Even though easoc02 is based on data for 2002, 2000 was used as the year for the other independent variables and 2001 as the year for the dependent. Formally this is a no-go, since past values are predicted with future values. However, many of the variable only go up to the year 2000, leading to a practical problem. This decision is justified with the fact that welfare institutions are known to be stable over time. It is therefore assumed that the socialist scores for 2002 are the same as for 2000.

² For 2000 models, single year ODA data is replaced with 5 year ODA averages (10 year averages are only available with forecasted values). All significances hold for these models. Hkplfull becomes significant at the 5% level. Adjusted R-squares rise 0.01-0.03 points. The models were also run without either lpop or lgdp to check for problems due to limited degrees of freedom. For models without lpop, all significances hold, and hkplfull rises from the 10% level to the 5% level. Adjusted R-squares rise 0,01-0.03 points. Ltcabcum becomes significant at the 5% level for model d. For models without lgdp, all significances hold and hkplfull rises from the 10% level to the 5% level. Adjusted R-squares drop 0.01 to 0.04 points.

Table 2 - Model 0 regression results (OLS regression) with independent variables for 2000

	(a)	(b)	(c)	(d)
Dependent	F.odap	F.odap	F.odap	F.odap
easoc02	0.062 (3.31)***			
hkplfull		0.172 (2.11)*		
lsgenros			0.022 (2.59)**	
socx				0.009 (0.50)
ltcabcum	0.010 (2.77)**	0.001 (0.09)	0.005 (1.09)	0.008 (1.03)
lpop	0.002 (0.07)	-0.031 (0.77)	-0.015 (0.39)	-0.052 (1.00)
lgdp	0.519 (1.71)	0.404 (1.13)	0.272 (0.79)	0.583 (1.30)
Constant	-5.361 (1.73)	-3.436 (0.94)	-2.933 (0.85)	-5.382 (1.17)
Observations	18	18	18	18
Adjusted R-squared	0.67	0.55	0.60	0.40

Absolute value of t statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

The replicated socialist scores for 2002 provide good explanatory leverage. This is a puzzling result, as Scruggs and Allen note that compared to the 1980 replicated estimates, these scores show “similarly discordant results” as the replicated 1980 scores. There are two possible inferences from this. One is that Scruggs and Allen’s results are flawed. Further examination of their analysis should show whether this is the case. Another is that ODA levels have aligned more to the stratification as demonstrated for 2002. However, why this would be so cannot be explained by the social stratification data itself.

Progressive liberalism has a significant and positive result on ODA levels, but only at the 10% level. However, for each year from 1991 to 1999, the significance level is below the 5% level (results not shown). The progressive liberalism index is based upon data from around 1990. During the 1990s, mean ODA as % of GNI for the 18 country dataset dropped faster than ever before in the history of ODA (from .50 in 1991 to .39 in 2000). Because the progressive liberalism index has one only fixed data point, it cannot account for this dynamic.¹

¹ The mean ODA level does not reveal any country specific effects. However, it can be used as an indication of evolving trends. More detailed analysis should point out if the drop of the mean is congruent with country level developments.

As for the 1980 model, decommodification provides a statistically significant explanation for ODA levels of the year 2000. The drop in mean ODA during the 1990s is accompanied by a drop in mean decommodification. Decommodification did not drop at the same rate as ODA, but decommodification manages to remain significant at the 5% level. Probably for the same reason as mentioned above, social expenditures do not exhibit any explanatory leverage for the year 2000 model.

Conclusion

The original Esping-Andersen socialist scores confirm the effect on ODA. However, the replicated scores by Scruggs and Allen yield mixed results. They show no effect for 1980, but show a strong effect for 2002. It is difficult to take sides on which data shows the 'real' picture. Until the replicated data are more thoroughly analysed, it is difficult to determine whether universalist welfare state institutions have an effect on foreign aid or not. The Hicks and Kenworthy progressive liberalism scores provide good explanations of ODA levels in the 1990s. Unfortunately, the single year index provides too little information to predict ODA values for longer data ranges.

Social expenditures do not yield much information about ODA levels in cross-sectional analysis. A time-series analysis should point out whether this crude measure of welfare policies has any explanatory power over longer periods of time. Decommodification provides the best explanation of ODA levels. It performs well in both 1980 and 2000 models. This effect is consistent with the theory that universalist (socialist) welfare state institutions lead to higher foreign aid spending. These mixed results warrant a further analysis of the data. In the following section a pooled cross-sectional time-series analysis with the available data is presented of model 0.

Welfare States and Foreign Aid (Model 0) - Time-Series analysis

The majority of the operationalisations of welfare state generosity are only available for cross-sections. But two of the operationalisations are available for a series of years (LSGENROS and SOCX). Since the dependent variable and the control variables are also available for the same series of years, a pooled cross-sectional time-series analysis can be performed. The advantage of this method of analysis is that it increases the number of observations.¹ With only 18 countries under investigation, cross-sectional analysis offers only limited degrees of freedom (n-1). This limits the number of control variables that can be added in each analysis, increasing the risk of omitted variable bias. Another advantage is that it can account for changes over time. As we have seen in the cross-sectional analysis, single year indicators only provide limited scope.

Data

Only two of the operationalisations of welfare state generosity are available for a series of years: decommodification and social expenditures. The control variables are

¹ For the difference between a case and an observation, see

available for all time periods. Variable descriptions and available years are mentioned in the section(s) above. Given the sizable increase in degrees of freedom some additional control variables are added. Country dummies to control for country specific effects and year dummies to control for time specific effects (such as particularities of the 'zeitgeist' that cannot be modelled). The year dummies are omitted in some models to show the influence of time effects on the outcome of the regression. Joint significance of country and year dummies was tested with a Wald test (Stata command for this test is `-testparm-`).

The following control variables were added:

- GDPGR. Growth of real GDP .
- LGDPPC. The natural log of GDP per capita. This is GDP divided by population.
- ST_UNEM. Standardised unemployment rates .

Tests

An issue with time-series data is non-stationarity. Stationary time-series exhibit a clear-cut tendency to return to a constant value or a given trend. This is a requirement for the estimation of linear models. The presence of a 'unit root' indicates that time-series are not stationary . When a unit root is present, the problem of non-stationarity can be dealt with by taking the first differences of the dependent and key independent variables rather than their absolute values.

Two tests of serial correlation are performed for all TSCS regression models.¹ The results of the statistics can be found at the bottom of each regression output. The first test is a test of 'serial correlation in the idiosyncratic errors of a linear panel-data model' discussed by Wooldridge . The Stata command for this test is `-xtserial2-`.²

The second test is what Beck and Katz call a 'a simple Lagrange multiplier test'. The same test is referred to by Kittel as a 'Durbin m-test'. What this test does is regressing the residuals from an OLS estimation (Y) on the first lag of those residuals (X_1) as well as all the independent variables (X_2, \dots, X_n) used in the OLS estimation. The estimated coefficient of the lagged residual term yields an estimate of the remaining serial correlation of the errors. A test of the null hypothesis that this coefficient is zero is a test of the null hypothesis that the remaining errors are serially independent . No implementation for this test could be found in Stata. A Stata program called `-durbinm-` was therefore written by the author that calculates this statistic. The ado file showing the exact operations is added in the appendix.

¹ Other tests are available but gave problems with the dataset because either test only works for GLS models. One is a Breusch-Pagan Lagrange multiplier statistic that tests for contemporaneous correlation (`-xttest2-` in STATA) proposed by Greene . Another possibility is `-xtcsd, pesaran-`, based on Pesaran . This command tests for cross-sectional dependence.

² We modified the original command `-xtserial-` so that it can handle time-series operators and named it `-xtserial2-`.

Remaining serial correlation causes OLS to underestimate the standard errors of the coefficients leading to larger t-statistics, overly optimistic p-values and the risk that the null hypothesis is mistakenly rejected. One way to remove serial correlation is through the addition of a lagged dependent variable. In case that after the inclusion of an Lagged Dependent Variable (LDV) there is still remaining serial correlation, this is a serious problem. The estimates of an OLS regression can no longer be trusted, not even PCSE. But turning to a FGLS model has the same result, argue Beck and Katz. The best that can be done in this situation is to estimate both models (with LDV and FGLS) and compare the results.

The test for groupwise heteroscedasticity is done with `-xttest3-`. This test calculates a modified Wald statistic for groupwise heteroscedasticity in the residuals of a fixed effect or FGLS regression model and follows Greene. It postulates: H_0 : homoskedasticity. Kittel and Winner conclude that when the test is highly significant, "it seems reasonable to follow the recommendation by Beck and Katz to apply panel corrected standard errors".

Two tests were used to check for non-stationarity in the dependent variable.¹ The first is the `-ipshin-` test, based on Im, Pesaran and Shin . It postulates: H_0 : all time series are non-stationary. The results of the `-ipshin-` test is that the balanced dependent variable has p-values low enough to reject the null hypothesis.² The second is the `-levinlin-` command, based on Levin, Lin and Chu . The `-levinlin-` test allows to reject the null hypothesis with an even greater level of certainty.³ These tests warrants the conclusion that the dependent variable does not suffer from non-stationarity. As a result, we can abstain from using first difference methods. However, since unit root tests are infamous for their low power , robustness was checked by also adding first difference equations. The results are the same.

Results

Table 3 - Model 0 Regression results (PCSE regression) with LSGENROS as main independent variable

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Dependent	F.odap	F.odap	F.odap	F.odap	FD.odap	FD.odap	FD.odap	FD.odap
odap	0.720	0.740			-0.289	-0.284	-0.282	-0.274
	(21.68)***	(22.67)***			(8.13)***	(7.42)***	(8.51)***	(7.81)***
FD.lsgenros					0.004	0.004	0.004	0.005
					(1.88)*	(1.91)*	(2.11)**	(2.17)**

¹ Both unit root tests can only handle balanced panels. Since our panel is not balanced (some countries only started giving ODA later than 1960) countries were omitted for which data was not available for the full time period under analysis (1960-2005).

² The result of the `-ipshin-` test is significant at the 5% level for lags 1, 2 and 4. The result is significant at the 10% level for lag 3.

³ The result of the `-levinlin-` test is significant at the 1% level for lags 1-4.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
lsgenres	-0.000 (0.24)	0.002 (1.85)*	0.005 (2.61)***	0.015 (9.52)***	0.001 (0.50)	0.003 (1.78)*	0.001 (0.70)	0.003 (2.10)**
FD.ltcabcum					-0.007 (0.88)	-0.008 (1.07)		
ltcabcum	-0.000 (0.09)	-0.001 (1.56)	0.003 (2.28)**	-0.001 (0.52)	0.001 (0.64)	-0.001 (1.02)	0.001 (0.68)	-0.001 (1.05)
FD.lgdppc					-0.326 (1.24)	0.044 (0.25)	-0.342 (1.38)	0.003 (0.02)
lgdppc	0.067 (1.63)	0.006 (0.84)	0.363 (6.39)***	0.043 (3.38)***	0.047 (1.04)	0.016 (1.68)*	0.040 (0.93)	0.009 (0.94)
FD.st_unemp					-0.004 (0.92)	0.001 (0.19)	-0.004 (0.96)	0.001 (0.28)
st_unemp	-0.004 (2.74)***	-0.005 (5.22)***	-0.004 (2.01)**	-0.006 (4.18)***	-0.004 (2.48)**	-0.004 (2.96)***	-0.004 (2.65)***	-0.003 (3.02)***
FD.gdpgr					-0.001 (0.25)	-0.006 (3.03)***	-0.001 (0.21)	-0.005 (2.94)***
gdpgr	0.002 (1.56)	0.001 (0.75)	-0.005 (2.66)***	-0.007 (3.39)***	0.002 (0.62)	-0.002 (1.01)	0.002 (0.73)	-0.002 (0.94)
FD.lpop					-0.607 (2.13)**	-0.158 (0.77)	-0.611 (2.26)**	-0.182 (0.95)
lpop	-0.064 (1.01)	-0.171 (4.04)***	-0.256 (2.64)***	-0.730 (14.49)***	-0.131 (1.93)*	-0.216 (4.96)***	-0.128 (2.00)**	-0.209 (5.12)***
Constant	0.837 (1.46)	1.755 (4.22)***	3.218 (3.66)***	7.278 (14.70)***	1.457 (2.37)**	2.192 (5.07)***	1.411 (2.45)**	2.108 (5.21)***
Auto-correlation 1 - F	95.118	63.369	44.481	34.303	81.558	53.807	84.630	53.943
P	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Auto-correlation 2 - b	-.19648	-.22324	.69506	.67481	-.21405	-.20754	-.21566	.21835
P	0.006	0.0008	0.000	0.000	0.000	0.004	0.004	0.002
Hetero-scedasticity - χ^2	184.34	798.16	362.41	524.37	218.14	455.01	152.56	478.05
P	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Country effects - χ^2	80.81	64.01	1180.00	999.29	74.98	64.84	75.66	63.76
P	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Time effects - χ^2	105.06		114.34		89.31		94.80	
P	0.000		0.000		0.000		0.000	
Year Dummies	Yes	No	Yes	No	Yes	No	Yes	No
Observations	420	420	420	420	384	384	402	402
Number of Countries	18	18	18	18	18	18	18	18

z statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 3 shows the PCSE regression results for Model 0 with LSGENROS as main independent variable. The dependent variable is ODAP. Models (a)-(d) are standard regressions. Models (a) and (b) have a LDV while models (c) and (d) do not. Models (b) and (d) have no year dummies. Models (e)-(h) are first difference regressions.¹ Models (e) and (f) take the first difference of LTCABCUM while models (g) and (h) only take the absolute values of LTCABCUM. Models (f) and (h) have no year dummies.

Of main interest are the b-values and z-statistics of decommodification (lsgenros), the main independent variable. The b-value of decommodification is positive and statistically significant for all models except (a), (e) and (g). The first differences of decommodification (fd.lsgenros) are positive and statistically significant for all models in which they are included.

For each model, we see that the z-statistic is higher for models without year dummies. The increased significance of decommodification in the absence of year dummies indicates that there are time-specific effects at work that are not modelled for. A hypothetical reason for this could be that development aid was more on the international agenda in some years than in others. At different moments in time, large humanitarian crises have demonstrated the need for foreign aid. This could have caused aid levels to rise. As other problems gained salience on the agenda, and interest for international development waned, aid levels might have dropped. Further research should point out whether this hypothesis is true or not.

Models (a)-(d)

The inclusion of a LDV does not seem to resolve the problem of autocorrelation and heteroscedasticity (even after inclusion of a LDV, all three tests continue to reject the null hypothesis of ‘no autocorrelation / heteroscedasticity’). Even though this is a serious problem, there are no tools readily available to resolve this problem. It does permit however to consider the models without LDV as equally (in)valid as the models with LDV. The highly increased significance of decommodification in models (c) and (d) compared to models (a) and (b) can be explained by the absence of ODAP as LDV. As noted before, ODAP as LDV consumes almost 92% of the variation. The high significance (1% level) of decommodification in both models (c) and (d) seems to substantiate hypothesis 0 that universalist (socialist) welfare state institutions lead to higher foreign aid spending.

Models (e)-(g)

All the first difference models show statistically significant and positive b-values for the first difference of decommodification (fd.lsgenros). The values do not reach the

¹ The ‘FD.’ prefix of a variable indicates that the first differences were taken. For independent variables, the ‘FD.’ version of a variable can be interpreted as a short term effect. The standard absolute values version of an independent variable can be interpreted as a long term effect.

highest level of significance, but are stable across models. This indicates a short term effect of decommodification on foreign aid levels. The absolute values of LSGENROS only have statistically significant and positive b-values in the absence of year dummies. Because the year dummies are jointly significant they should not be dropped. This indicates that for the first difference models, a long term effect of decommodification on foreign aid cannot be confirmed.

These results are rather surprising, because one would sooner expect a long term than a short term effect from institutionalised values. The benefits of welfare institutions can be argued to need time to settle into peoples opinions.

Additional remarks

Population has the expected effect on foreign aid: the negative b-value indicates that larger countries give relatively less foreign aid. This effect is statistically significant across models. Standardised unemployment is highly significant and negative for all models. This effect could be expected with the logic that countries will first invest in their own economy to take care of national citizens before giving development aid to foreigners. The robustness of this effect across models is unexpected but interesting. Further research should look closer in to the exact workings of this mechanism.

Conclusion

Serial correlation and heteroscedasticity are a problem in all models.¹ The inclusion of a lagged dependent variable does not resolve this problem. When we dismiss the results of the LDV models, both decommodification and social expenditures have a positive significant effect on foreign aid levels. But omitting the lagged dependent variable can only be justified when there is no theoretical reason to believe that last year's level of ODA has anything to do with this year's level of ODA . This is a precarious assumption. It is much more likely that ODA does indeed depend on previous levels. The institutional inertia of ODA has also been mentioned in earlier research.²

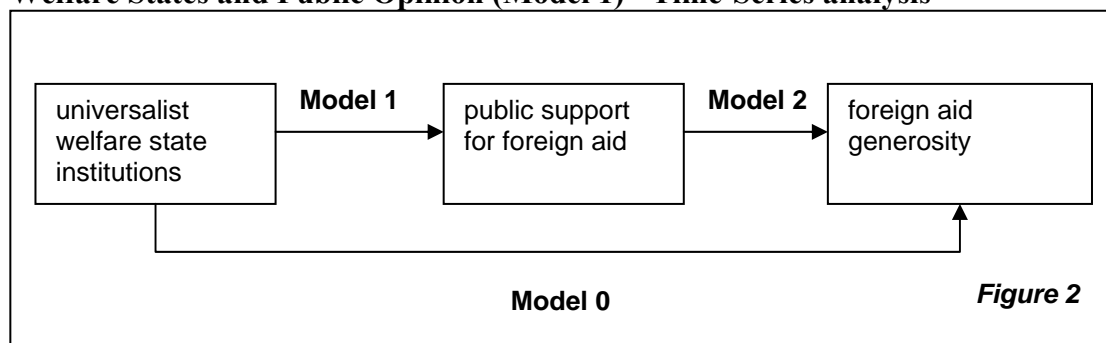
Long term effects of either decommodification or social expenditures do not occur in first difference models. On the other hand, significant and positive short term effects are present for both decommodification and social expenditures.

¹ A solution to the serial correlation and heteroscedasticity problem is the application of Prais-Winsten regression. The results are available upon request. Serial correlation is successfully removed with this technique (see the Durbin-Watson statistics). In the Prais-Winsten regressions, social expenditures do not have any significant effect in models (a) and (b), but do have a significant short and long term effect in all first difference models. In fact, the anticipated long term effect is more statistically significant than the short term effects. Here again, standardised unemployment is robust across models. The danger of overconfident confidence intervals in the case of Prais-Winsten regression should be kept in mind here.

² See theoretical section for references.

On the whole, the effect of social welfare institutions on foreign aid is not evident from these data. Yes, some models demonstrate a statistically significant and positive effect of either decommodification or social spending. But the models in which effects appear are never the most restricted or safest models. There is enough reason to continue to assess models 1 and 2, but the hypothesis that universalist (socialist) welfare state institutions lead to higher foreign aid spending is not incontestably proven by these results.

Welfare States and Public Opinion (Model 1) - Time-Series analysis



Methodology

Model 1 posits a positive relationship between egalitarian welfare states and public support for foreign aid. When welfare states are more egalitarian, public support for foreign aid should be higher. The data used for this analysis is described below.

Data

Internationally comparable multi-year public opinion data are scarce. The only source that has comparative questions on development aid over countries and time is Eurobarometer. One question in particular has been asked in (roughly) the same wording in (roughly) the same set of countries over a period of time. The big drawback of this data is that it is only available for European countries. This is a serious limitation, but there is no alternative. Many country-level surveys are held, but the formulation of the questions is always different across countries. Even on a single country level, it is virtually impossible to find continued surveys over a large number of years that use the same wording. The risk of invalid measurement (not measuring what you want to measure) is greater than the possible benefit of including this data. Until surveys are held at a OECD DAC level, this limitation remains a problem for this type of analysis.

These are the public opinion variables that used for the analysis of model 1:

- OPINION1 – Eurobarometer: “In your opinion, is it very important, important, not very important or not at all important to help people in poor countries in Africa,

Latin America, Asia, etc. to develop?”¹ The data are available for 8 years, ranging from 1983 to 2004.

There are approximately 70 observations (not all countries were part of the survey in all years) in the dataset. The categories ‘very important’ and ‘important’ were merged to form a category of people who find it important to help people in poor countries. This question is imperfect for a multitude of reasons. It does not distinguish between development aid and humanitarian aid. It does not ask whether people think it is their government that is responsible to do something. Neither does it ask *why* people think it is important to help. Short, this variable has serious shortcomings. But as noted above, this is the only tool available for comparative analysis, however bad it may be.

To cope with the missing value problem, missing values are imputed in two ways. These imputation techniques are borrowed from Milner .

- OPINION2 – OLS imputed missing values based on OPINION1. This procedure estimates an OLS regression line based on values of the available years. The missing years are filled with the estimated values of the regression equation for that country. Years for which data was available kept their original value. If a downward trend line led to negative values, these values were set to zero and cut off at that year.
- OPINION3 – This procedure takes the value from the last year for which data was available in OPINION1. For example, the years between 1983 and 1987 (two years for which data were available) were filled with the 1983 data. The data range was extrapolated to the year 2006.

The two procedures increase the number of cases for which data is available to approximately 190 observations.²

The regressions below are PCSE regressions. First differences were not used for three reasons. First, the many gaps in the sample make it virtually impossible to perform unit root tests. Second, to take the first differences of the raw values (opinion1) is problematic, for the value of the previous period is ‘missing’ in most cases. Third, to take the first differences of the imputed values is risky because they do not represent ‘real’ values.³ Lagged dependent variables could not be included due to gaps in the sample.

¹ Full descriptions of the questions can be found in the appendix. The questions were not exactly similar for all years, but similar enough to treat them equivalently.

² data for Norway was not imputed beyond the latest available year since there were only two years for which data was available

³ Prais-Winsten regressions were done to check the difference. Since the results conform to the PCSE regression results, they are not presented

Table 5 shows the PCSE regression results for Model 1 with decommodification (lsgenros) as main independent variable. The dependent variable is public support for foreign aid.

Models (a) and (b) have the original Eurobarometer results as dependent variable. Models (c) and (d) have the missing values filled with OLS estimates (opinion2). Models (e) and (f) have the missing values filled with the values from the last available year (opinion3). Models (b), (d) and (f) do not have year dummies.

Results

Table 5 - Model 1 Regression results (PCSE regression) with LSGENROS as main independent variable

	(a)	(b)	(c)	(d)	(e)	(f)
Dependent	F.opinion1	F.opinion1	F.opinion2	F.opinion2	F.opinion3	F.opinion3
lsgenros	-0.006 (2.33)**	-0.008 (4.93)***	-0.003 (1.32)	-0.003 (1.50)	-0.003 (1.38)	-0.007 (2.98)***
ltcabcum	-0.013 (2.78)***	-0.013 (2.15)**	-0.010 (2.48)**	-0.005 (1.05)	-0.011 (2.75)***	-0.036 (5.40)***
lgdppc	0.312 (2.14)**	0.328 (16.21)***	0.239 (1.76)*	0.256 (12.12)***	0.329 (2.32)**	0.702 (13.17)***
gdpg	0.005 (1.11)	-0.005 (1.77)*	0.003 (0.98)	-0.002 (0.65)	0.001 (0.32)	0.003 (0.63)
st_unemp	0.005 (0.70)	-0.003 (1.87)*	0.001 (0.30)	-0.002 (1.58)	-0.001 (0.11)	0.022 (7.02)***
lpop	-0.142 (0.99)	-0.184 (4.21)***	-0.094 (0.85)	-0.048 (1.86)*	-0.036 (0.33)	-0.171 (4.63)***
Constant	1.730 (1.21)	2.189 (6.33)***	1.336 (1.27)	1.781 (4.88)***	0.197 (0.19)	4.013 (7.21)***
Autocorrelation 1 - F ¹			4.769	4.166	204.758	969.093
P			0.0515	0.066	0.000	0.000
Autocorrelation 2 - b ²			.1070	.0075	.4627	.0404
P			0.172	0.921	0.000	0.148
Heteroscedasticity - χ^2	1.6e+06	76023.88	109.54	150.94	8781.92	18409.06
P	0.000	0.000	0.000	0.000	0.000	0.000
Country effects - χ^2	151.49	108.60	865.31	555.44	317.08	142.92
P	0.000	0.000	0.000	0.000	0.000	0.000
Time effects - χ^2	60.13		153.44		1652.43	
P	0.000		0.000		0.000	
Year dummies	Yes	No	Yes	No	Yes	No
Observations	70	70	189	189	189	189
Number of Countries	12	12	12	12	12	12

z statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

¹ This test was not performed for models (a) and (b) due to gaps in the sample.

² This test was not performed for models (a) and (b) due to gaps in the sample.

The b-value of decommodification is *negative* and statistically significant for models (a), (b) and (f). This indicates that the more social benefits workers receive, the less people are in favour of foreign aid. This result is in complete contrast with the theoretical framework.

It should be noted that decommodification is only significant in model (f) due to the omission of year dummies. Since time effects are jointly significant in model (e), there is no good reason to omit these dummies. All models suffer from heteroscedasticity. Serial correlation is a problem for models (e) and (f). However, the fact that the most restricted model, with only original data and time dummies (model 'a') yields a significant *negative* effect from decommodification on public support for foreign aid is a surprising and important finding.

Additional remarks

Cumulative left power has a comparable effect on public support as decommodification. This finding is equally surprising. People in countries with strong left partisan traditions are expected to have higher support for foreign aid. GDP per capita does have the expected sign. The richer people are, the more they are expected to support helping poor people. Some cynics might argue the opposite, but to common sense this result is not surprising.

Conclusion

The analysis suffers from some of the problems that were discussed before (serial correlation and heteroscedasticity), but the results presented here are robust after correction of these problems.¹

Table 5 and table 6 (see appendix) show the remarkable result that decommodification and social spending have a statistically significant *negative* effect on public support for foreign aid. In other words, the more social benefits people receive, the less they support foreign aid. This result completely contradicts the theoretical framework. The hypothesis that universalist (socialist) welfare state institutions lead to higher public support for foreign aid can therefore not be accepted.

Public Opinion and Foreign Aid (Model 2) - Time-Series analysis

Methodology

Hypothesis 2 posits that higher public support for foreign aid leads to higher foreign aid spending. This hypothesis is tested with the data described in the previous sections. In model 2, the dependent variable is ODA as % of GNI. The main independent variable is public support for foreign aid. The same public opinion

¹ Prais-Winsten regressions yield similar results. Results are not presented but are available upon request.

variables are used as in model 1. All models are PCSE regressions with a lagged dependent variable.¹ Table 7 shows the regression results of model 2.

Results

Table 7 - Model 2 Regression results (PCSE regression with LDV) with Public Opinion as main independent variable²

	(a)	(b)	(c)	(d)	(e)	(f)
Dependent	F.odap	F.odap	F.odap	F.odap	F.odap	F.odap
odap	0.850 (11.05)***	0.829 (10.78)***	0.714 (13.04)***	0.690 (14.58)***	0.708 (12.60)***	0.704 (13.61)***
opinion1	0.203 (1.44)	0.053 (0.95)				
opinion2			0.307 (2.46)**	0.224 (3.95)***		
opinion3					0.023 (0.26)	-0.058 (3.07)***
lrcabcum	-0.006 (1.05)	-0.007 (1.47)	-0.006 (1.63)	-0.004 (1.16)	-0.009 (2.55)**	-0.008 (2.88)***
st_unemp	0.001 (0.54)	-0.003 (1.07)	-0.003 (1.78)*	-0.006 (2.84)***	-0.003 (1.59)	-0.005 (2.18)**
lgdppc	-0.067 (0.60)	-0.083 (1.82)*	-0.088 (1.47)	-0.089 (2.32)**	-0.015 (0.32)	0.011 (0.35)
gdpg	0.008 (2.00)**	0.009 (3.30)***	0.006 (2.28)**	0.003 (1.65)*	0.006 (2.36)**	0.003 (1.79)*
lpop	0.010 (0.11)	-0.035 (0.45)	-0.080 (1.58)	-0.070 (1.75)*	-0.101 (2.45)**	-0.075 (2.22)**
Constant	-0.140 (0.15)	0.422 (0.65)	0.720 (1.11)	0.673 (1.34)	1.204 (2.62)***	1.041 (2.74)***
Autocorrelation 1 - F ³			69.457	78.736	70.768	80.383
P			0.000	0.000	0.000	0.000
Autocorrelation 2 - b ⁴			-5031	-5364	-4867	-4958
P			0.000	0.000	0.000	0.000
Heteroscedasticity - χ^2	6266.47	2.3e+05	215.68	955.93	231.59	557.38
P	0.000	0.000	0.000	0.000	0.000	0.000
Country effects - χ^2	25.22	28.28	53.44	51.85	55.26	56.54
P	0.009	0.003	0.000	0.000	0.000	0.000
Time effects - χ^2	14.67		30.72		24.29	
P	0.012		0.031		0.146	
Year dummies	Yes	No	Yes	No	Yes	No

¹ Prais-Winsten regressions of the same models do not show significant effects for any of the public opinion variables. When the LDV is omitted, public support in model (b) becomes significant at the 10% level and public support in model (f) loses all significance. All other significances hold.

² Model 2 is robust with lsgen or socx included as independent variable.

³ This test could not be done for models (a) and (b) due to gaps in the sample.

⁴ This test could not be done for models (a) and (b) due to gaps in the sample.

	(a)	(b)	(c)	(d)	(e)	(f)
Observations	59	59	178	178	177	177
Number of Countries	12	12	12	12	12	12

z statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 7 shows no significant effect on foreign aid from opinion1. Only when the LDV is omitted, the effect from public opinion in model (b) becomes significant at 10% and stays positive (results not shown). This step is not warranted, because the time dummies are jointly significant in model (a).

Opinion2 shows a positive and significant effect at the 5% level with year dummies (model ‘c’) and when year dummies are omitted, a positive and significant effect at the 1% level (model ‘d’). At a standard level of alpha (5%), the choice to omit the year dummies is not warranted. The year dummies in model (c) are jointly significant. Omitting the LDV diminishes the significance of opinion in model (c) to 10%, but leaves intact the 1% level in model (d).

Opinion3 does not show a significant effect with year dummies, but when the year dummies are omitted it shows a highly significant *negative* effect. This step is warranted by the joint insignificance of the year dummies in model (e). However, when the LDV is omitted for model (f), the effect stays negative but loses all significance (results not shown).

Conclusion

Based on the raw Eurobarometer data (opinion1), higher public support for foreign aid does not lead to higher foreign aid spending. When the missing values in the raw data are imputed with an OLS regression technique, public support for foreign aid has a fairly robust positive effect on foreign aid levels. When the missing values in the raw data are filled with the last known values, it is unclear what effect (if any) public support has on foreign aid.

CONCLUSION

The theoretical framework in this paper can be summarised as follows. Institutionalised values and principles of equality have a positive effect on foreign aid levels through the effect they have on public preferences. Once institutionalised, values and principles of equality are transmitted to those exposed to the institutions that embody them. The public preferences are aggregated back into (foreign) welfare policies through democratic processes. Figure 2 represents these causal processes.

If all of the above is true, *universalist (socialist) welfare state institutions lead to higher public support for foreign aid.* In turn, *higher public support for foreign aid*

leads to higher foreign aid spending. As a consequence, *universalist (socialist) welfare state institutions lead to higher foreign aid spending.* These are the three hypotheses under examination in this paper.

The last hypothesis (model 0) was scrutinised first. This analysis shows that the original effect, as found by Noël and Thérien is more uncertain than previously assumed. The validity of the Esping-Andersen stratification data is under attack, and alternative measures of socialist welfare regimes do not reveal similar explanatory power. In the cross-sectional context, a measure of welfare state generosity (decommodification) looks promising for explaining foreign aid levels. On a theoretical level, the causal effect on people's preferences should also follow from this variable.

The effect of decommodification on foreign aid levels is further examined in a cross-sectional time-series analysis. Here, the results are weaker and less stable. The most strict methodological procedures do not yield consistent results. Only when methodological requirements are eased slightly, a positive and significant effect becomes apparent. Common problems in time-series analysis (such as serial correlation and heteroscedasticity) add further to a cautious interpretation of these results. An analysis of the theoretically less convincing level of social spending yields similar results. As a consequence, it cannot be said without reservation that universalist (socialist) welfare state institutions lead to higher foreign aid spending.

The analysis of model 1 shows a surprising result: high decommodification levels and social spending have a *negative* effect on public support for foreign aid. This effect is only statistically significant for the original raw public opinion data, but the coefficients of the imputed data all have the same negative sign. Moreover, cumulative left power also has a statistically significant negative effect on public support for foreign aid in a number of models.

These results are puzzling and completely contrary to what is expected from the theoretical framework. Data limitations prohibit robustness checks that are performed for the other models. More data is currently not available, but other statistical techniques may shed more light on this matter. If this result is found to be robust, this requires a thorough revision of the theoretical framework.

Universalist (socialist) welfare state institutions do not seem to lead to higher public support for foreign aid. In fact, the opposite seems to be true. Although this result cannot be explained within our theoretical framework, it may shed light on why the results from model 0 are so weak. When discussing the research design, it was showed that the causal effects of model 1 and 2 are multiplicative, and that model 0 follows from the resulting vector. If welfare states do not have the theorised positive effect on public opinion, and the sign of the effect is negative or zero, they do not contribute to

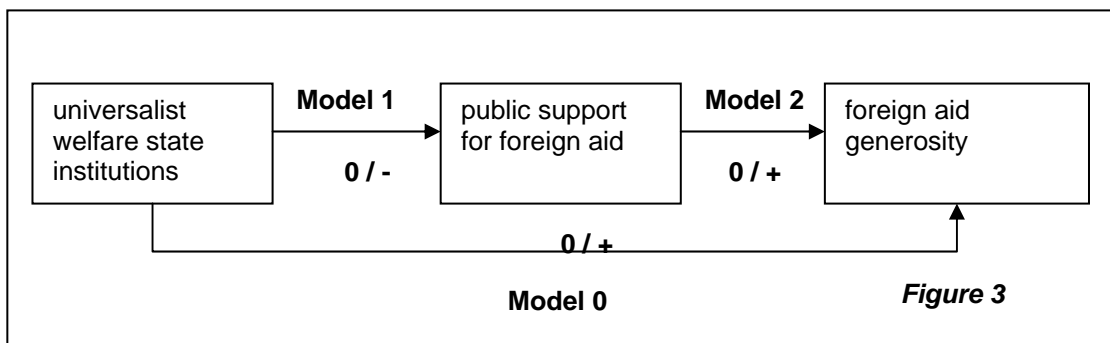
the level of foreign aid as predicted. To verify this, we also need to look at the results of model 2.

The analysis of model 2 shows that the raw Eurobarometer scores do not have an effect on foreign aid levels. When missing values are imputed with an OLS regression technique they exhibit a fairly robust and positive effect on foreign aid levels. When the last known values are used to fill the gaps in the sample, they do not demonstrate a stable effect on foreign aid levels.

The positive effect from the OLS imputed values (opinion2) on foreign aid levels cannot be unified with the effect from welfare institutions on them. Neither decommodification nor social expenditures have a statistically significant effect on opinion2. On the other hand, decommodification and social expenditures have a statistically significant (negative) effect on the raw public opinion data. But the raw public opinion data does not have a statistically significant effect on foreign aid.

When the different versions of the public opinion data are considered one at the time, the multiplicative effect of models 1 and 2 is zero. Even if we would be loose in our logical reasoning, the product of models 1 and 2 does not explain the (weak and unstable) effect of welfare states on foreign aid (model 0). When we multiply the negative effect of model 1 (raw public opinion data) with the positive effect of model 2 (OLS imputed values) the result is still negative.

In conclusion, the effect from welfare states on foreign aid spending is zero or positive. The effect from welfare states on public opinion is zero or negative. The effect from public opinion on foreign aid is zero or positive. Either version of the truth contradicts the theoretical framework. Higher foreign aid levels cannot be explained by the effect egalitarian welfare state institutions have on public opinion. These results are summarised in figure 3.



What are we to make of these results? Two simple possibilities present themselves. One possibility is that the data analysis is flawed. First, decommodification and social spending are only proxies for Esping-Anderson socialist scores. Second, the public opinion data are limited to European countries and have a validity problem. Third, the

regression models suffer from serial correlation and heteroscedasticity. The data problem is acute, but there is no imminent solution. Better public opinion data do not exist at this moment in time. The validity of the Esping-Andersen socialist scores is under attack and the replicated scores are only available for two years. However, it is argued here that the decommodification data in this paper is a valid proxy that evades this problem. More sophisticated data analysis techniques may lead to different results. Other researchers are invited to do so.

The second possibility is that the theoretical framework is flawed and needs to be reviewed. The hypothesised causal effects from welfare state institutions on foreign aid should be made more explicit and better thought through. Even if better public opinion data would be available, the direct link between public perceptions and policy is problematic. The democratic process is more complicated than this direct link assumes, and many additional factors may override the direct effect. Given these facts, the development of a better theoretical framework is the way forward in finding a definitive answer to the determinants of foreign aid.

This paper gives a negative answer to the main question of this paper. It largely refutes one possible answer, leaving open many others. Nevertheless, a demonstration of what is *not* the case is also a contribution to the understanding of a subject. A small, but important step towards the escape out of the “intellectual vacuum” mentioned in the first sentence of this paper.

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