POLICY RESEARCH WORKING PAPER   8263

Association of World Bank Policy Lending with Social Development Policies and Institutions

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November 2017

Abstract

Do World Bank policy loans that are focused on social policy reform help improve social policies and institutions in borrower countries? To help answer this question, this paper provides new empirical evidence of the association between World Bank policy lending and measures of the quality of borrower countries' social policies and institutions that such lending supports. Results from estimating a two-stage least squares model indicate that the World Bank's policy lending has a significantly positive effect on the quality of social policies and institutions. The analysis

also finds tentative evidence that loan conditions related to social protection and environmental sustainability are more effective in influencing social policies and institutions than those related to equity of public resource use and health and education. In general, the findings are confirmed when estimating a model with a lagged variable of interest. The results suggest that the right kind of conditionality can help improve social policies, therefore providing an important lever for reaching the twin goals of ending extreme poverty and stimulating shared prosperity.

Association of World Bank Policy Lending with Social Development Policies and Institutions

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1. Introduction

In 1980 the World Bank launched its first non-investment project lending instrument to support policy change in recipient countries, sometimes referred to as "budget support loans" or "policy lending". At that time, there was a sense of institutional dissatisfaction with the limited influence of the Bank's standard investment project lending on policies and institutions of borrowing governments, which were viewed as important for achieving development results. Therefore, structural adjustment lending was conceived, a new lending program with which the Bank would try to assist governments in overcoming policy and institutional deficiencies in developing countries that constrain the countries' macroeconomic stability and long-term economic growth potential (Kapur et al., 1997). The basic idea was that if such structural constraints were removed, the economy would move to a more sustainable growth path.

Five distinct features of these loans compared to investment projects are: (i) that the funds are disbursed much faster, in one or more tranches, compared to a number of years in the case of investment projects, in line with project implementation; hence the synonym term "fast-disbursing loans;" (ii) the fact that World Bank financing is disbursed into the general government budget, rather than against individual procurement contracts in the case of investment projects; (iii) an agreement between the government and the Bank on a macroeconomic and structural policy framework (the key of which is the country's budget); (iv) a minimum confidence on the part of the Bank that the country's public financial management systems have the capacity to handle larger financial assistance through its general budget system; and (v) specific conditionality, i.e., legal actions—typically important reform steps—required for the country to access financing.

The first two features were designed to provide greater flexibility to borrowing countries with solid economic and policy performance and the capacity to access larger amounts of financing for development needs on favorable terms. The following two features were essentially safeguards and due diligence requirements to ensure the proper use of Bank financing. The fifth feature, conditionality, serves to help ensure implementation i.e., induce policy reform.

In its early years, adjustment lending mainly emphasized macro-economic stabilization and correction of balance of payments distortions. In part, this was a reflection of the times: the 1980s were a period of many macroeconomic crises in developing countries, especially in Latin America and, towards the end of the decade and in the first half of the 1990s, in transition economies (De Melo et al, 1996; World Bank, 1996).

At the beginning of the 1990s, however, more emphasis was put on protecting the poor from the adverse effects of adjustment. This reflected a shift in the Bank's thinking about the need for more pro-poor policy focus (World Bank, 1990). It also coincided with the Bank's adoption of the explicit corporate goal of poverty reduction. Furthermore, the development community came to an emerging consensus that social, political and economic institutions matter for sustained implementation of sound macroeconomic policies, economic growth and poverty reduction (see, e.g., World Bank, 1998). Reflecting

these concerns, the Bank's adjustment operations changed along a number of dimensions, including a name change in 2004 to development policy lending (DPL).[1]

In the context of the Bank's current policy lending, improvements in policy can take place through several channels: financing, policy dialogue, and policy and institutional actions or reforms. First, the government's budget constraint may be relaxed by the policy lending with additional Bank financing, which may not be easily available from other sources. (Or alternative financing may be prohibitively costly.) This may provide a financial incentive to the government to implement a reform or accelerate the reform it had contemplated before. Second, the policy dialogue on the macroeconomic framework and policy reform program between the Bank team and the government counterparts typically involves a discussion of policy objectives (e.g., reducing inflation, changing debt dynamics, improving the investment climate, or improving targeting of cash transfers) and various policy options. In a good outcome scenario, the Bank and the government client agree on a course of action of policy reform – a government's reform program – that is consistent with the government's high-level objectives and, importantly, its current year budget and medium-term budgetary and economic policy framework. And third, the government may implement policy actions and institutional reforms that are potentially outcome improving. To advance agreed reforms and jumpstart implementation, policy lending includes "prior actions" on key reforms agreed. These actions must be completed by the government before the DPL financing can be disbursed. In a sense, prior actions encapsulate the critical elements of the agreed reform program that aim to move the whole DPL supported reform agenda forward.

As Figure 1 shows, the World Bank's policy loans – which account for more than one-fourth of all World Bank lending – seek to improve policy in many different sectors, from macro-fiscal management to business climate to public sector governance. Figure 1 indicates that prior actions related to the broad area of public sector governance continue to dominate the Bank's reform agenda in recent years.

However, with 14 percent of conditionality centered on social protection during the past three years, 8 percent on human development and 6 percent on environmental management, the World Bank is also heavily involved in supporting structural policy reform for human and social development. Moreover, in 2013 the World Bank adopted the new corporate goal to boost the income growth of the poorest 40 percent in each country, reflecting the rising conviction in the development community and the Bank that economic growth and development should benefit everyone in society (World Bank, 2015b).

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[1] In 2013 the name changed to Development Policy Financing (DPF), in part so as to reflect the inclusion of policy based guarantees under the DPF corporate operational framework.

Figure 1: Thematic distribution of prior actions in World Bank policy lending (source: World Bank, 2015)
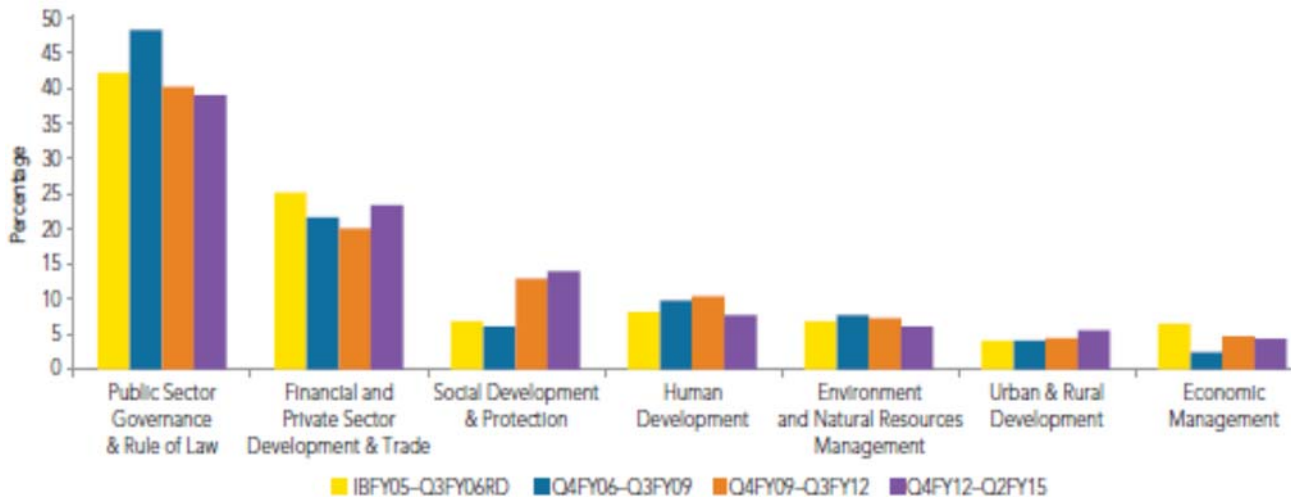

Given the increased attention to social inclusion and equity at the Bank, including through policy lending, this paper empirically examines the association of World Bank policy lending with policy and institutional reforms in the broad area of social development. Simply put, we are interested in whether there is any evidence that the Bank's policy lending with its focus on equity and social inclusion has any correlation with the improvements in those policies and institutions it aims to support. Therefore, our dependent variable is not a final outcome measure such as income inequality or human development,[2] but rather a measure of the quality of social policies and institutions of country governments. Put differently, we test for whether World Bank country teams achieve the broad objective of improving the quality of social development policies using the policy lending.[3]

In terms of the simplified framework set forth by Bourguignon and Sundberg (2007), shown in Figure 2, we are investigating the first link of the aid causality chain, running from donors to the policies selected by recipient country policy makers. That is, we are investigating whether donors – here, the World Bank – are able to influence policy makers (and the policies selected) by providing financial resources, policy advice through policy dialogue, and conditionality to help insure implementation. Note that we do not attempt to identify which (social) policies lead to higher level outcomes (the third link), nor do we explicitly examine the political economy of how policy makers select policies (the second link). Nevertheless, from an aid effectiveness perspective, it is important to understand if there is empirical evidence of the link between policy lending and policy improvements.

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[2] For a recent review of the aid-growth literature, see Galiani et al (2016). Castells-Quintana and Larru (2015) provide an overview of the (scant) literature examining the impact of aid on inequality.

[3] Smets and Knack (2015, 2016) take a similar approach, examining the influence of World Bank policy lending on public sector governance and economic policy respectively. This study complements that research by looking at social policies.

Figure 2: Aid Causality Chain (Source: Bourguignon and Sundberg, 2007)
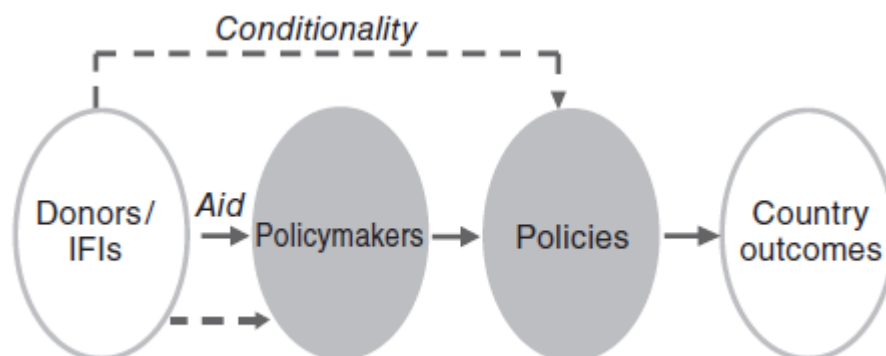
Methodologically, establishing such an empirical link is not straightforward.[4] We highlight two challenges which we aim to address in this study. First, there is a potential selection bias problem. That is, countries often receive policy loans because of policy deficiencies, so the coefficient on aid may be biased downward when examining its impact on policy outcomes. Yet, the coefficient may be biased upward if loans tend to go to motivated governments that would have reformed even in the absence of support. We correct for endogeneity in two different ways: first by lagging the variable of interest and secondly by instrumenting the variable of interest in a two-stage least squares (2SLS) model.

A second issue that could bias estimates is a poor match between dependent and independent variables. World Bank loans seek to improve policy in many different sectors or sub-sectors (cfr. Figure 1), and the estimated impacts of lending may be biased downward if the outcome variable is not matched with the relevant subset of policy loans (Clemens et al, 2012). For example, Easterly (2005) acknowledges that his study on the impact of adjustment lending is limited to "easily quantifiable [objective] macroeconomic indicators' and that DPLs also target other policy improvements, such as reform of inefficient financial sectors". To prevent poor matching, we only take into account policy conditions that are related social development and match that with what World Bank teams are attempting to achieve when they engage in social policy lending, i.e., an improvement in the quality of social policies (see below).

Before we detail the data and methods and present the findings, we draw attention to the two main results. First, estimating a cross-sectional 2SLS model indicates that 'social policy lending'[5] has a significantly positive association with the quality of social policies. Point estimates suggest that policy reform represented by 30 social policy prior actions increases the CPIA score by one standard deviation on average. Second, estimating a more

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[4] See Smets (2016) for a more elaborate discussion.

[5] We count for each country the number of "social policy" prior actions/conditions in policy loans and use it as our main variable of interest.

disaggregated effect on social policy "sub-sectors" – gender, equity of public resource use, human resources, social protection and environment – reveals considerable heterogeneity. Conditions related to the equity of public resource use and building human resources do not seem to influence the quality of policies in those areas. On the other hand, we find tentative evidence that conditions related to social protection and environmental management positively affect the policy quality in those areas. In general, these findings are corroborated by lagging the variable of interest.

The remainder of the paper is structured as follows. In the next section we elaborate on the data and method used, while section 3 presents the main findings. Finally, section 4 concludes.

2. Data and method

2.1   Dependent variable and variable of interest

In this study we analyze the association of World Bank development policy lending with the quality of the client governments' social policies, as measured by the Bank's Country Policy and Institutional Assessment (CPIA) ratings. The CPIA assessments are expert ratings of 16 policy indicators, grouped into four "clusters", assessed and updated annually by respective World Bank technical staff working on each member country (see Appendix A for a detailed description). Most indicators rely on quantitative data and unambiguous metrics to capture changes (positive or negative) in policies and institutions. Possible scores on each indicator range from one (weakest policies) to six (strongest policies), including half-point increments.[6]

In our analysis, the main dependent variable is the CPIA "Cluster C" score, which measures more specifically the quality of policies and institutions for social inclusion and equity. This rating consists of five sub-components: gender equality, equity of public resource use, building human resources, social protection and labor and environmental sustainability. Countries are rated each year on each of these five dimensions, on a one to six scale. The resulting cluster score is the simple arithmetic mean of the five components.

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[6] The CPIA is arguably the most appropriate policy measure available at the Bank, because its content reflects the views of World Bank management and staff regarding what policies are most conducive to poverty reduction and the effective use of aid resources. Second, it is the most relevant available cross-country indicator of the policies World Bank country teams are attempting to improve when they design policy loans. Third, CPIA ratings have also been used in empirical analyses in academic literature outside the World Bank (see, e.g., Collier and Hoeffler, 2004).

Nevertheless, we also searched for alternative measures of social policy quality (not social development outcomes), but failed to find useful indicators with the same level of granularity and consistency and availability of data. Stockholm University's Social Policy Indicators (SPIN) project gathers time-series data of social policy legislation. Unfortunately, that data set is limited to (mostly) high-income countries. Likewise, the OECD collects a wide variety of social indicators, but again mostly for its member states.

Following Smets and Knack (2015), we count for each country the number of "social policy" prior actions in policy loans and use it as our main variable of interest.[7] This variable can be decomposed into prior actions related to gender equality, equity of public resource use, building human resources, social protection and environmental sustainability. Gender reforms cover a wide range of areas going from the protection of women in the household to the inclusion of gender-based data in national statistics. Equity of public resource use relates to the extent in which countries are able to identify the poor and vulnerable and prioritize budgeting accordingly. Prior actions in this area relate to poverty measurement and pro-poor budgeting. Building human resources focuses on health and education reforms; conditions cover many topics including civil servant payroll reform, health financing, food safety standards, etc. Social protection conditions focus on improving the labor market and creating social safety nets and other transfer programs such as pension reforms. Finally, environmental sustainability conditions relate to the protection and sustainable use of natural resources, reforms to combat pollution and measures to mitigate the adverse impacts of climate change.

2.2   Model specification

Econometrically, we estimate the following equation:

$$\Delta y_i = \beta_0 + \beta_1 \Delta x_i + \beta_2 Z_i + \varepsilon_i \tag{1}$$

With Δy_i the change in the CPIA C score for country i during the period 2006-2014 and Δx_i the change in the number of "social policy" prior actions for country i between 2006 and 2014. Z_i is a vector of control variables including the initial level of policy quality (i.e., the 2006 CPIA score), average annual aid as a share of GDP, average annual growth in GDP per capita and the change in political freedom over the period 2006-2014. Given that social policy prior actions in DPLs can be classified along the same lines as CPIA sub-components, we also estimate equation (1) for each CPIA C *sub-component*, using changes in corresponding prior actions as variables of interest.[8]

A convenient implication of using the change in policy quality as the dependent variable is that time-invariant heterogeneity between countries – for example, colonial heritage, legal tradition, and cultural norms – should matter relatively little, as most of its effects will arguably be captured by the initial level of policy quality. Another convenience of using changes over a long period for key variables is recognition of the fact that policy

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[7] These prior actions are thematically coded in the World Bank's database of prior actions and can be extracted for all major themes. We have used thematic codes 51-60, 62-70, 80-89, 92, 93 and 100. Arguably, some loan conditions may have a larger impact on policy quality than others (IEG, 2015). Disaggregating conditions by type is beyond the scope of this study, but is an interesting area for future research.

[8] While for most sub-components a good conceptual match was found with corresponding prior actions, the CPIA sub-component on equity of public resource use is only partly captured by prior actions. That is, that CPIA sub-component includes poverty measurement, poverty budgeting and the progressiveness of taxation, while the corresponding prior actions only focus on the former two.

reform may not translate into improvements instantaneously but with a lag, sometimes of several years.

2.3   Correction for endogeneity

When analyzing the association of World Bank lending with the quality of social policies, we have to take into account a potential selection bias problem. We correct for endogeneity in two different ways: first by lagging the variable of interest and secondly by instrumenting the variable of interest in a two-stage least squares (2SLS) model. With respect to the 2SLS model, we instrument for the number of "social policy" conditions with the logarithm of population (in 2006) and the number of financial and private sector conditions from 2006 through 2014. Population size is used as an instrument for aid in many other studies (e.g., Boone, 1996; Burnside and Dollar, 2000; Djankov et al., 2008) and has been shown to be statistically unrelated to a wide variety of institutional indicators (Rose, 2006). For our second instrument - the number of financial and private sector (FPS) conditions - we exploit the fact that the reform programs countries receive often contain conditionalities that target several sectors. That is, development policy loans that contain social sector conditions may also contain conditions targeting the private sector. In fact, that is often the case. FPS conditions typically entail reform of competition law, financial regulation and improvements in the ease of doing business. We do not expect these types of conditions to directly affect the quality of social policies (specification tests reported below are consistent with this reasoning).[9] Furthermore, Smets and Knack (2015, 2016) provide empirical evidence that World Bank conditions targeting one policy area do not affect the quality of policies in other CPIA clusters.

It is important to note though that the use of Instrumental Variables is not without problems, especially where economic growth is the dependent variable. Most notably, Bazzi and Clemens (2013) argue that country size may affect growth through multiple (endogenous) channels, which makes population an invalid instrument when those factors are omitted or not properly instrumented for. Yet, with the quality of social policies (in contrast to growth) as the dependent variable, theory and evidence about any effects of country size are more ambiguous and scarce. Obviously, we cannot exclude the possibility that orthogonality conditions are not met. Therefore, we also report interval estimates where we relax the strict exogeneity assumption and allow the instruments to be "plausibly exogenous" (see Conley et al, 2012).

As a second correction for endogeneity we estimate a lagged model with the change in CPIA C scores during 2011-2014 as dependent variable and the accumulation of 'social policy' prior actions during 2006-2010 as variable of interest. In this model, we also include the initial level of policy quality (in this case the 2011 CPIA score), average annual

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[9] The Bank's operational policy (OP 08.60) requires a poverty and social impact analysis (PSIA) in case prior actions have negative distributional consequences. Even though the existing evidence suggests otherwise (see IEG, 2010), these PSIAs could arguably influence the quality of social policies. And if PSIAs are related to FPS conditions, the exclusion restriction might be violated. However, out of the 199 PSIAs performed so far (this count also includes PSIAs that are not integrated with DPLs), only one was related to Financial and Private Sector Development.

aid as a share of GDP, average annual growth in GDP per capita and the change in political freedom over the period 2011-2014 as controls.

3. Results

3.1 Descriptive statistics

Table 1 presents descriptive statistics for the variables in our regression sample. It shows that sufficient cross-country variation exists in changes in social policy quality and its subcomponents. Zimbabwe comes out on top with a 1.1 increase – around 4 standard deviations – in social policy quality. This may appear surprising; however, it corresponds to the findings of Chinyoka and Seekings (2016) who find that Zimbabwe's government of national unity substantially reformed social policy by introducing large-scale cash transfer and food aid programs. Furthermore, Zimbabwe's 2006 CPIA Cluster C score was 2 – the lowest value in our sample, providing scope for substantial improvement. By contrast, in our sample, social policy quality deteriorated most in Madagascar over the period 2006-2014. The CPIA cluster C score dropped from 3.6 in 2006 to 3.1 in 2014, mainly due to the protracted political crisis during that time (World Bank, 2013).

Table 1 indicates that the average country in our sample received around 7 social policy conditions during the period 2006-2014. Among the countries that received at least one reform condition, the average number of prior actions increases to 10. With 55 social policy conditions, Vietnam received most World Bank policy support for social reform. Twenty-two countries in the sample did not receive any social policy reform assistance during that time.

Table 1: Descriptive statistics

variable	Mean	Std. Dev	Min	Max
change in CPIA C score	0.110	0.269	-0.5	1.1
change in CPIA's gender score	-0.015	0.457	-1.5	1.5
change in CPIA's human resources score	0.279	0.418	-1	1.5
change in CPIA's public resources score	0.132	0.470	-1	1.5
change in CPIA's social protection score	-0.038	0.467	-1	1.5
change in CPIA's environ. sust. score	0.140	0.495	-1	1.5
initial level of policy quality, CPIA C	3.222	0.515	2	4.3
initial level of policy quality, gender	3.375	0.666	2	5
initial level of policy quality, human resources	3.368	0.621	2	4.5
initial level of policy quality, public resources	3.375	0.666	2	5
initial level of policy quality, social protection	3.076	0.498	2	4.5
initial level of policy quality, environ. sust.	3.044	0.597	1.5	4.5
change in n° of social policy prior actions	6.600	11.554	0	55
change in n° of gender prior actions	0.162	0.660	0	4
change in n° of human res. prior actions	2.735	5.637	0	28
change in n° of pub. res. prior actions	0.324	0.921	0	5
change in n° of soc. prot. prior actions	1.590	3.319	0	20
change in n° of environ. sust. prior actions	1.691	3.538	0	20
average aid/GDP 2006-2014	0.047	0.050	0.002	0.271
average per capita growth 2006-2014	2.765	2.331	-3.716	7.712
change in political freedom 2006-2014	0.015	1.121	-3	3

Note: descriptive statistics based on the observations (n=67) included in estimating equation (1) with OLS. Initial level of policy quality refers to the year 2006. Change in scores refers to the change between 2006 and 2014.

3.2 Regression results

Table 2 presents the findings from estimating equation (1) with OLS. The coefficient on social policy prior actions comes in significantly positive at the 5 percent level: one additional social policy condition increases the CPIA C score by .004 on average. This is relatively low compared with other recent studies – i.e., Smets and Knack (2015, 2016) – examining the effect of the World Bank's policy lending on CPIA. However, note that the coefficient estimate in Table 2 represents the endogenous effect of policy lending on policy quality and might be downward biased because of a negative selection bias.

Table 2 also shows that the coefficient for initial level of policy quality is significantly negative, implying a regression toward the mean effect. This suggests that countries with strong initial social policies do not necessarily sustain them over time, while countries with weak policies tend improve them. Furthermore, high average growth rates are associated with improvements in social policy: countries that grow more rapidly find it easier to effect improvements in social policy. However, caution is required as causality could run both ways. Finally, Table 2 shows that democratization is positively related to social policy change: countries that expanded political freedoms tend also to have better social policies.[10] Again caution is required as omitted variables might drive changes in both social policies and political freedoms.

Table 2: OLS

VARIABLES	Dependent variable: change in CPIA score
initial level of policy quality	-0.336***
	(0.0653)
average aid/GDP 2006-2014	-0.207
	(0.539)
average per capita growth 2006-2014	0.0313***
	(0.0100)
change in political freedom 2006-2014	-0.0633**
	(0.0287)
social policy prior actions 2006-2014	0.00427**
	(0.00207)
Observations	67
R-squared	0.421

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Constant included in the regression but not reported.

Table 3 presents the findings from estimating equation (1), instrumenting social policy conditions with the logarithm of population and the number of FPS prior actions. Population and FPS conditions are strong predictors of social policy prior actions (F-stat=12.900, p-value=0.0001). Furthermore, Wooldridge's (1995) robust score test of overidentifying restrictions does not reject the null that the excluded instruments are exogenous to changes in the quality of social policy (test score = 0.325, p-value = 0.568).

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[10] We measure political freedom using Freedomhouse's Political Rights variable that ranges from 1 through 7, with 1 representing the greatest degree of freedom and 7 the smallest degree of freedom.

Table 3: 2SLS

VARIABLES	first stage (y: social policy cond.)	second stage (y: CPIA C change)
logarithm of population 2006	1.353*	.
	(0.698)	
FPS prior actions 2006-2014	1.094***	.
	(0.238)	
initial level of policy quality	5.810***	-0.371***
	(2.054)	(0.0644)
average aid/GDP 2006-2014	29.70*	-0.198
	(17.46)	(0.531)
average per capita growth 2006-2014	-0.397	0.0300***
	(0.370)	(0.0102)
change in political freedom 2006-2014	-0.116	-0.0624**
	(1.122)	(0.0291)
social policy prior actions 2006-2014	.	0.00913***
		(0.00353)
Constant	-38.81***	1.172***
	(14.49)	(0.226)
Observations	67	67
F-test of excluded instruments	12.900	.
F-test of endogeneity	.	3.124
Overidentification test	.	0.325
R-squared	0.539	0.382

Note: Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The second stage regression indicates that the coefficient on loans more than doubles in comparison with its OLS counterpart, suggesting that the net effect of endogeneity bias was negative. With a point estimate of 0.0091, it takes 30 social policy conditions on average to increase the CPIA cluster C score by 1 standard deviation. The 2SLS regression

confirms the regression toward the mean effect and shows that high average growth rates and democratization are associated with improvements in social policy.

Building on Conley et al (2012), we also estimate a lower and upper bound for social policy prior actions, assuming that the instruments are only "plausibly exogenous". Implementing the Union of Confidence Interval (UCI) approach – with gamma values ranging from -0.004 to +0.004 for both instruments – generated a 90 percent lower bound of .0004 and an upper bound of .019. Even though this is a wide confidence interval, it further corroborates the finding of a positive influence of World Bank policy lending.

As mentioned above, prior actions related to social policy can be disaggregated and matched with the relevant components of CPIA Cluster C. Table 4 reports results for these tests, which in all other respects replicate those from tables 2 and 3. For brevity, the table reports only the coefficient estimates and standard errors for the conditions variables.

Table 4 shows considerable heterogeneity. While conditions related to building human resources (health and education) and equity of public resources use do not seem to affect the quality of policies in those areas,[11] prior actions targeting social protection and environmental sustainability do have a positive effect, with coefficient estimates for these variables several times larger than the estimates presented in tables 2 and 3. Note also that the coefficient estimates increase when estimating the model with 2SLS.[12]

Caution is required however as the IV test statistics are generally less favorable. Nevertheless, the findings in Table 4 indicate that – even within a policy cluster – the right kind of conditionality is able to improve the quality of policies.[13] These results are in line with Smets and Knack (2015), who also find heterogeneity when disaggregating their analysis on the effect of Bank lending for public sector governance.

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[11] As mentioned in footnote 6, prior actions for equity of public resource use are imperfectly matched with the corresponding CPIA subcomponent. As Clemens et al (2012) have shown, this might attenuate the impact of policy lending in this sub-sector.

[12] However, caution is required as IV test statistics are generally less favorable.

[13] While overidentifying restrictions are met, the F-statistic of excluded instruments is on the low side for gender (F=2.35), public resource use (F=4.61), social protection (F=6.51) and environmental sustainability (F=7.13), mainly due to the weak predictive power of population. Weak instrument tests turn out favorable for social protection (e.g., confidence interval $AR_{.95}$-test = [.005894, .]) and environmental sustainability (confidence interval $AR_{.95}$-test = [.017852, .101367]), but not for gender equality and equity of public resource use.

Table 4: regression results CPIA-DPL sub-components

SUB-COMPONENT	OLS	2SLS
gender equality	. 0851663** (.0335114)	.2293958 (.1596291)
building human resources	-.0081586 (.0056969)	.0073854 (.0119933)
equity of public resources use	-.0829775** (.0365159)	.1330024 (.1691171)
social protection	.0423338*** (.007944)	.0731172*** (.0261195)
environmental sustainability	.0345567*** (.0102607)	. 0501551** (.0198982)

Note: Results from estimating equation (1) with OLS and 2SLS on CPIA cluster C components: gender equality, equity of public resource use, building human resources, social protection and labor and environmental sustainability. Only coefficient estimates and robust standard errors of conditions variable are reported. * Significance at 10%; ** significance at 5%; *** significance at 1%.

Table 5 shows the results for the lagged model that uses the change in CPIA C scores during 2011-2014 as dependent variable, the accumulation of 'social policy' prior actions during 2006-2010 as variable of interest and the initial level of policy quality, average annual aid as a share of GDP, average annual growth in GDP per capita and the change in political freedom over the period 2011-2014 as controls. Again, only the coefficient estimates and standard errors for the lagged conditions variable are reported. Table 5 indicates that changes in social policy conditions during the period 2006-2010 are positively related to changes in CPIA C scores during the period 2011-2014. The subcomponent analysis reveals that, especially in the area of environmental sustainability, policy lending has been effective in supporting reform.

Table 5: regression results lagged model

Dependent variable: change in CPIA rating 2011-2014	Variable of interest: change in social policy conditions 2006-2010
AGGREGATED ANALYSIS	
CPIA social inclusion	0.00349*
	(.00183)
SUB-COMPONENT ANALYSIS	
CPIA gender equality	.0267241
	(.0264928)
CPIA building human resources	-.0028954
	(.0050412)
CPIA equity of public resources use	.0118641
	(.0161222)
CPIA social protection	.0202407
	(.0140276)
CPIA environmental sustainability	.0220407**
	(.010993)

Note: Results from estimating a lagged model with the change in CPIA C scores during 2011-2014 as dependent variable and the accumulation of 'social policy' prior actions during 2006-2010 as variable of interest. Only coefficient estimates and robust standard errors of prior actions variable are reported. * Significance at 10%; ** significance at 5%; *** significance at 1%.

4. Conclusion

In this study, we analyze the association of World Bank lending with the quality of social policies, as measured by the Bank's Country Policy and Institutional Assessment (CPIA) ratings.

Results from estimating a cross-sectional 2SLS model indicate that social policy lending has a significantly positive effect on the quality of social policies: one additional social policy condition increases the CPIA social inclusion score by .009 points on average. Alternatively, it takes 30 social policy conditions on average to increase the CPIA cluster C score by 1 standard deviation.

When disaggregating the analysis by CPIA C components, we find that prior actions targeting *social protection and environmental sustainability* have a positive effect, with 2SLS coefficient estimates equal to .073 and .050 respectively. These findings suggest that the right kind of conditionality is able to improve social policies, therefore providing an

important lever for potentially contributing to the twin goals of ending extreme poverty and stimulating shared prosperity.

Appendix A. Country Policy and Institutional Assessment

The CPIA scores are designed to measure government policies and institutions, rather than outcomes. The set of criteria are revised periodically to reflect changes in the collective knowledge of practitioners and specialists - both inside and outside the World Bank – regarding the policies and public sector management institutions that matter for these outcomes. The criteria are grouped into 4 "clusters" as follows:

A. Economic Management
1. Macroeconomic Management
2. Fiscal Policy
3. Debt Policy

B. Structural Policies
4. Trade
5. Financial Sector
6. Business Regulatory Environment

C. Policies for Social Inclusion/Equity
7. Gender Equality
8. Equity of Public Resource Use
9. Building Human Resources
10. Social Protection and Labor
11. Policies and Institutions for Environmental Sustainability

D. Public Sector Management and Institutions
12. Property Rights and Rule-based Governance
13. Quality of Budgetary and Financial Management
14. Efficiency of Revenue Mobilization
15. Quality of Public Administration
16. Transparency, Accountability, and Corruption in the Public Sector

For each criterion, countries are rated on a scale of 1 (low) to 6 (high). A 1 rating corresponds to a very weak performance, and a 6 rating to a very strong performance. Intermediate scores of 1.5, 2.5, 3.5, 4.5 and 5.5 may also be given. See World Bank (2013b) for a detailed elaboration of the scoring procedure.

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