Aid, Reform, and Interest Groups

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AID, REFORM, AND INTEREST GROUPS*

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Abstract

Employing a political economy perspective, we seek to understand the seeming failure of aid to promote institutional reform. À la Stigler's theory of regulatory capture, we suppose that institutions are determined via a process of exchange and that special interest groups may capture institutions. We interpret grants of aid as a shock to the market for institutions and hypothesize that the impact of aid on institutional reform is conditional on the influence of groups. Based on a panel of 92 aid-receiving nations, we find evidence consistent with a political economy perspective and our hypothesis. In particular, we find that aid has had a positive impact on reform in countries with especially low levels of market-orientation in institutions and middling to large numbers of groups, and that aid has been associated with back-sliding on reform in many other countries.

Keywords: aid, reform, institutions, special interest groups

JEL classification: O1, O19, P11

* In honor and memory of Stephen Knack. Steve's scholarship advanced our understanding of institutions, development, and public sector impediments to prosperity and self-actualization for the poorest among us. His excellence is missed. We thank participants at the Public Choice Society meetings and at the UMass Lowell seminar series for helpful remarks, especially Daniel Bennett, Christian Bjørnskov, Dennis Coates, and Shakil Quayes.

I. Introduction

Foreign aid has long been granted as a means to the ends of economic growth and better lives for those living in poorer nations. In the decades following widespread allocations of aid, scholars began to explore its efficacy. Research generally found that aid had not generated growth (Boone 1996; Easterly 1999) calling into question the use of aid to promote development.[1] Burnside and Dollar (2000, 2004) revived the debate with findings that aid can be effective in the right environments.[2] In particular, they found that aid significantly increased growth in those nations with good institutions and policies already in place, albeit not in others. These findings implied that improving institutions would not only have a direct impact on growth, but could also indirectly increase growth by making aid more effective.

On the heels of the Burnside and Dollar (2000, 2004) findings, more emphasis was placed on the granting of aid to encourage market-oriented institutional change, such as building courts and training judges to establish and protect property rights, stabilizing currencies to limit rampant inflation, and reducing government reliance on inefficiently high taxes and tariffs. Scholars subsequently began to explore whether aid had produced such reform. Findings again called into question the effectiveness of aid. While research generated some evidence that aid is associated with reform (e.g., Knedlik and Kronthaler 2007; Dzhumashev and Hailemariam 2021), other findings point to null effects (e.g., Heckelman and Knack 2009; Pavlik, Powell, and Young 2022). Notably, some work even suggests that aid has led to less, not more, market-orientation in institutions (e.g., Dreher and Rupprecht 2007; Heckelman and Knack 2008; Young and Sheehan 2014). We seek to understand this seeming failure of aid. In particular, as Burnside and Dollar earlier explored whether aid might generate growth under some conditions but not others, we explore whether aid might generate reform under some conditions and back-sliding in the market-orientation of institutions under other conditions.

[1] The aid-growth literature is extensive and the subject of several surveys including Rajan and Subramaniam (2008), Doucouliagos and Paldam (2008, 2009, 2011), White (2007), and Easterly (2003).

[2] For surveys of literature reporting on conditioning models of aid effectiveness for growth, see McGillivray et al. (2006) and Doucouliagos and Paldam (2010) on the first wave of studies, and Hur and Han (2024) for more recent work.

To better understand the relation between aid and change in the market-orientation of institutions, we adopt a political economy perspective. Prior literature largely treats institutions as exogenous, as if institutional quality is randomly assigned. In contrast, a political economy perspective recognizes that institutions are endogenously determined via a process of political exchange. We focus in particular on the exchange that takes place between policymakers[3] and special interests in the market for institutions and on the impact of grants of aid on this market.

The conventional view that aid should improve institutions presumes that the prerequisites for development are lacking in poor nations because they are costly, literally. The building and maintenance of the state capacity necessary to provide public goods and market-oriented institutions requires real resources. From this perspective, aid relaxes a state's budget constraint and jump-starts needed initiatives and reform. In contrast, a political economy perspective understands aid not only as a relaxing of a budget constraint, but also as a shock to an existing market for institutions. In such markets, policymakers and special interests engage in exchange over policy, regulation, and other rules (see, e.g., Stigler 1971; Yandle 1983; McChesney 1987). This process of exchange generates an equilibrium set of institutions. A grant of aid upsets this equilibrium. The impact of aid will therefore depend on conditions in the market for institutions, and may be positive, null, or perverse, depending on the preferences and relative bargaining strengths of market participants. A political economy perspective admits the possibility that aid-facilitated reform efforts may face an uphill battle if entrenched groups stand opposed.

Notably, much aid is directed towards humanitarian efforts and public goods, rather than institutional reform per se. A political economy perspective admits the possibility that these sorts of aid may generate unintended consequences in the market for institutions, due to rent seeking and institutional capture by interest groups.

[3] We use "policymakers" as an encompassing term intended to capture the various categories of agents on the supply side of the market for institutions, including politicians (elected and unelected) and civil servants.

Motivated by the idea of a market for institutions and by the possibility of rent seeking in the context of aid grants, we pose two questions: (1) Is the relation between aid and reform conditional on the influence of special interest groups? (2) If so, do the conditional marginal effects of aid imply that aid promotes reform under some conditions even while it is ineffective or leads to backsliding on reform under other conditions? The existence of such conditional marginal effects may explain why much of the existing literature, which generally focuses on average marginal effects, has failed to identify a clear impact of aid on reform. In addition, evidence of such conditionality could help aid grantors better target aid or engage in efforts to mitigate special interest group pressures opposed to reform or bolster those supportive of reform.

To address our research questions, we estimate the conditional marginal effects of aid on change in the market-orientation of institutions using a panel of 92 aid-receiving nations. We find evidence that the impact of aid is indeed conditional on the influence of interest groups, consistent with a political economy perspective that institutions are endogenous to a process of exchange. More specifically, the findings suggest that aid has had a positive impact on reform in countries with especially low levels of market-orientation in institutions and middling to large numbers of groups, and that aid has been associated with back-sliding on reform in many other countries.

II. Aid and Reform

Our work is motivated in part by the extant empirical literature, which offers a mixed bag of findings on the impact of aid on reform. Using annual data and the Heritage index of economic freedom to measure reform, Knedlik and Kronthaler (2007) identify a positive relation between aid and reform, but an inverse relation between IMF credit and reform. Taking a long-run view and using the Fraser index of economic freedom, Heckelman and Knack (2008) find that aid perversely slowed market-oriented reform on average over the period 1980-2000. In a follow-up study of aid, reform, and medium-run growth, Heckelman and Knack (2009) find no significant effect of the aggregated freedom index. However, using hedonic estimates from a

growth model, they infer that aid has improved institutional scores in areas that are positively correlated with growth and reduced scores in areas that are inversely correlated with growth. Using a panel based on intervals of five years, Young and Sheehan (2014) find a perverse impact of aid on reform, particularly with respect to human and property rights as well as openness to international trade. Using a novel instrument that exploits lags between loan approvals and disbursements, Dzhumashev and Hailemariam (2021) identify a positive relation between aid and the levels of several aspects of market-oriented institutions. Pavlik, Powell, and Young (2022) employ matching methods. In contrast to Dzhumashev and Hailemariam, they find no meaningful causal impact of aid on reform.

The aforementioned studies all examine the average marginal effect of aid on reform. A few others have examined conditional marginal effects of aid on reform, identifying more positive findings - under certain conditions - than much of the literature. Kilby (2005) finds that aid directed towards more heavily regulated economies leads to deregulation. Dutta and Williamson (2016) find that aid advances reform in democracies but may have perverse reform-backsliding effects in autocracies. Annen and Knack (2021) find that policy-selective aid (aid that is granted in response to past reform) causes further reform, at least for those countries that lack access to non-selective financial flows from China or rents from natural resources. Our work contributes to the literature in a similar vein, by exploring whether the impact of aid on market-oriented reform is conditional on the influence of special-interest groups as one would expect it to be if institutions are endogenously determined via a market process of exchange and thus subject to capture by groups.

III. Special Interests and the Market for Institutions

The idea of a market for institutions is an old one. In a (26th of October 1780) letter to Andreas Holt, Adam Smith characterized his *Wealth of Nations* as a "violent attack" on mercantilism, a system of exchange in the sphere of the state in which interest groups curry favor with policymakers in pursuit of monopoly privileges and other favorable regulations. The more modern incarnation of a market for institutions is rooted in Stigler's (1971) economic theory

of regulation, which turns on its head the idea that regulation exists as an exogenously imposed policy response to market failure. Instead, Stigler asserts that regulation develops the same way as do goods and services - via market processes, albeit in the sphere of the state rather than in commercial society - and that regulation thus exists to benefit both the regulated and the policymakers who offer it in exchange for votes and resources.

À la Stigler's (1971) theory of economic regulation, we suppose that the existing set of economic institutions in a nation may be understood as the outcome of a process of exchange between policymakers and special interest groups. In other words, we suppose a market for institutions exists. Policymakers supply institutions demanded by groups, if the "price" is right. As further noted by Yandle (1983), we should expect an "equilibrium" in the market for institutions to persist unless and until there is some outside shock to the system. We interpret aid as just such a shock.

As a reviewer suggested to us, this political economy framework can be applied in different settings. Consider for example, Congleton's work (2001, 2007) which also adopts the political economy framework of a market for institutions. It is assumed a bargaining-based equilibrium exists which can be upset by an external shock to one side's utility function or income. Congleton applies this basic structure to answer a vastly different question than ours. Namely, he is interested in explaining why a king would voluntarily cede policy autonomy. In contrast to us, Congleton investigates *political* institutions, and bargaining over veto power and tax revenue takes place between two branches of government, specifically the sovereign (executive) and parliament (legislative). His bargaining model, in which the shocks create new gains from trade, identifies new equilibria where both parties can be made better off by renegotiation. The model explains transitions from autocratic king to constitutional monarchy in the absence of revolutions, coups or other violence. In our model, bargaining is in the form of special interest groups lobbying the government over the market orientation of a wide variety of *economic* institutions. And while an income shock can be the catalyst for institutional change in either model, our income shock occurs from aid whereas the time frame Congleton

investigates pre-dates the era of large scale aid. Thus the political economy approach based on an exchange model of institutions has diverse applications. From here on out, unless otherwise specified, any references to "institutions" will strictly represent economic institutions.

How should we expect an aid shock to manifest in the market for institutions? It depends, in part, on the preferences of interest groups. There are two main models of the preferences of interest groups, one from Olson (1965, 1982) and another from Doner and Schneider (2000). On Olson's account, the "logic" of collective action implies that group formation will be incomplete; that small groups are more likely to coalesce than large groups; and that small groups engage in redistributive rather than productive activities to advance their interests. In Olson's framework, special interest groups thus favor and achieve what Stigler dubs "regulation for the benefit of the regulated," rather than regulation (and institutions more generally) that addresses market failure and produces efficient allocations. When a grant of aid shocks the market for institutions, if the aid is associated with efforts to advance reform, Olson's model implies that we should expect groups to oppose reform. They would lobby to preserve the status quo in an attempt to preserve their privileged position as insiders. If the aid is directed in other ways, towards humanitarian efforts or public goods for example, Olson's logic implies that we should expect groups to take advantage of the opportunity implied by a loosened budget constraint and rent seek in pursuit of initiatives that serve their narrow interests and are associated with back-sliding in the market orientation of institutions. Formal game-theoretic approaches to thinking about aid and reform have produced similar conclusions. For example, Svensson (2000) offers a game-theoretic rent-seeking model that demonstrates how aid may lower the provision of public goods and that motivates an empirical analysis of the impact of aid on corruption. Hodler (2007) incorporates a rent seeking contest into the Barro (1990) growth model to explore how institutions that limit rent seeking may determine aid effectiveness. He finds that, in theory, rent seeking may be a "major determinant of aid effectiveness."

Doner and Schneider (2000) do not reject Olson's (1965, 1982) account. However, they argue that the narrowly interested redistributive objectives of groups "may coexist or even al-

ternate with more productive goals," under certain conditions. In particular, when institutions are especially anti-market in their orientation, Doner and Schneider suggest that the narrow interests of groups are likely to align with what Olson would call the "encompassing" interests of society. In such contexts, groups may well prefer more market-oriented institutions as the preferred means of increasing their own slice of the pie. Instead of lobbying against reform and in favor of regulation crafted to their benefit, they are likely to support market-oriented reform and lobby in favor of it. A reviewer offered us an historic example of Doner and Schneider's logic: in the 1840s, industrial interest groups lobbied for the repeal of England's Corn Laws, to the benefit of the working class (Schonhardt-Bailey 2006).

These two models of the preferences of interest groups produce the following hypotheses:

- In nations with market-oriented institutions, grants of aid will be associated with less reform and potentially with back-sliding in the market-orientation of institutions the greater is the influence of interest groups.
- In nations with non-market-oriented institutions, grants of aid will be associated with more reform the greater is the influence of interest groups.

IV. Model, Data, and Methods

To help fix ideas, we first discuss a model that we do not estimate. It features a two-way interaction term, of the sort commonly used to assess conditional marginal effects. This discussion motivates the actual model we estimate, which features both a two-way interaction term and a less common three-way interaction.

Both hypotheses imply that the impact of aid on reform is conditional on the extent of interest group influence in the market for institutions. The model to estimate would therefore feature an interaction term between aid and a measure of interest group influence. For example,

$$\text{Reform}_{i,t} = \alpha + \gamma_1 \,\text{Aid}_{i,t} + \gamma_2 \,\text{Aid}_{i,t} \cdot \text{Groups}_{i,t} + \gamma_3 \,\text{Groups}_{i,t} + \boldsymbol{\gamma_4}' \boldsymbol{X}_{i,t} + \epsilon_{i,t}\,, \tag{1}$$

where Reform is a measure of institutional reform; Aid is a measure of development assistance; Groups is a measure of interest group influence; $\boldsymbol{X}$ is a vector of additional explanatory vari-

ables; α and γ's are parameters to be estimated; ϵ is an error term; i indexes countries and t indexes time. Groups is included as an independent variable since groups may influence reform through a market for institutions independently of aid as well as in the context of aid.

Differentiating equation (1) with respect to Aid implies that the marginal impact of aid on reform is

$$\frac{\partial \text{Reform}}{\partial \text{Aid}} = \gamma_1 + \gamma_2 \, \text{Groups} \, . \tag{2}$$

To test our two hypotheses, we could split our sample, with one subsample featuring nations with market-oriented institutions and the other subsample featuring nations with non-market-oriented institutions. For the first subsample, featuring nations with market-oriented institutions, we predict $\gamma_2 < 0$. If $\gamma_1 > 0$, aid is associated with reform in the absence of groups. In addition, the impact of aid on reform diminishes as the influence of groups increases. If the magnitude of the coefficient on the interaction term (γ_2) is sufficiently large relative to the magnitude of the coefficient on aid (γ_1), aid may be associated with back-sliding in the market-orientation of institutions if the influence of groups is sufficiently strong. For the second subsample, consisting of nations with non-market-oriented institutions, we predict $\gamma_2 > 0$. In this case, as the influence of groups increases, a given amount of aid is associated with more reform (or less back-sliding if $\gamma_1 < 0$).

While the conditional marginal effects of aid are easy to grasp with this single interaction model, this approach assumes two categories or gradations of institutions - market-oriented and non-market-oriented. In reality, something closer to a continuum may be relevant. This problem is avoided if, instead of splitting the sample and estimating a model with a two-way interaction, we utilize the full sample and estimate a model with a two-way interaction (between aid and groups) and a three-way interaction (between aid and groups and the extent of market-orientation of institutions). The addition of the three-way interaction allows us to capture the hypothesized institutionally-dependent preferences of groups - which reflect the possibility that groups pursue narrowly interested objectives (à la Olson (1965, 1982)

and Stigler (1971)) when institutions are sufficiently market-oriented and that groups pursue socially interested objectives (à la Doner and Schneider (2000)) when institutions are insufficiently market-oriented (and because their narrow interests happen to align with the social interest in such circumstances). This approach further allows the data to determine the extent of market-orientation in institutions at which the preferences of groups change.

In order to explore whether the relation between aid and market-oriented reform is conditional on the influence of groups as predicted, we therefore estimate the following model,

$$\begin{aligned}\text{Reform}_{i,t} = \alpha + &\beta_1 \,\text{Aid}_{i,t} + \beta_2 \,\text{Aid}_{i,t} \cdot \text{Groups}_{i,t} + \beta_3 \,\text{Aid}_{i,t} \cdot \text{Groups}_{i,t} \cdot \text{Inst}_{i,t} \\ &+ \beta_4 \,\text{Groups}_{i,t} + \beta_5 \,\text{Groups}_{i,t} \cdot \text{Inst}_{i,t} + \boldsymbol{\beta_6}' \boldsymbol{X}_{i,t} + \epsilon_{i,t}\,, \end{aligned} \tag{3}$$

where Inst is the extent of market-orientation of institutions and other variables are as earlier defined. Groups and Groups·Inst are included as independent variables since groups may influence reform through a market for institutions independently of aid as well as in the context of aid.

Differentiating equation (3) with respect to Aid implies that the marginal impact of aid on reform is

$$\frac{\partial \text{Reform}}{\partial \text{Aid}} = \beta_1 + \beta_2 \,\text{Groups} + \beta_3 \,\text{Groups} \cdot \text{Inst}\,. \tag{4}$$

In the absence of a market for institutions, $\beta_2 = \beta_3 = 0$. In this case, the marginal impact of aid on reform does not depend on groups and reduces to β_1. If aid increases the market-orientation of institutions independently of (or in the absence of) the market for institutions, then $\beta_1 > 0$. If, as we hypothesize, there is a market for institutions and groups generally oppose reform if institutions are sufficiently strong and favor reform if institutions are sufficiently weak, then $\beta_2 > 0$ and $\beta_3 < 0$. Analogously, we expect $\beta_4 > 0$ and $\beta_5 < 0$.

Due to potential endogeneity of aid (attributable especially to omitted variables and reverse causality), we estimate the model using both OLS and IV, with region and time fixed effects, and without fixed effects. Our data consist of an unbalanced panel of a maximum of 259 observations on a maximum of 92 countries and four time periods, 1975-1985, 1985-1995,

1995-2005, and 2005-2015.

Following much of the aid-reform literature, we measure Reform as the change in the Fraser Institute's index of economic freedom. We adopt relatively long 10-year time periods as a baseline due to the nature of both reform and the economic freedom data. Some formal reform may occur relatively quickly, within in, say, a span of a few years. Reform that "matters" though, often requires a corresponding transformation in complementary informal norms and understandings. This complementary transformation likely takes time to fully emerge. Actual "full" reform, reform of both formal and informal institutions, may well be fairly slow. In key regards, the data underlying the Fraser economic freedom index capture at least some of the slower aspects of reform. In particular, a number of the components of the index are based not on measures of actual laws and regulations, but on survey questions that reflect respondents' impressions, experiences, or expert judgments, as the market-oriented nature (or lack thereof) of an institutional environment can be difficult to directly observe. These responses likely reflect both the formal and informal aspects of reform, such that a relatively long time horizon is appropriate. In contrast to our 10-year time frame, five-year periods are commonly examined in the literature. In sensitivity analysis, we examine five-year periods.

Our data range from 1975-2015. Reform over, for example, the first ten year period of 1975-1985 is captured by the level of the index in 1985 minus the level in 1975. The extent of existing market-orientation in institutions, Inst, is captured by the initial level of the index. For example, Inst for the 1975-1985 period is the level of the index in 1975. Fraser tracks five components of economic freedom - size of government, legal system and property rights, sound money, freedom to trade internationally, and regulation (of credit markets, labor markets, and business). We examine reform as measured by the change in the overall index as well as in each of the individual components.

We measure Aid using net "official development assistance" (ODA) flows as a share of gross national income (GNI) from the World Bank's *World Development Indicators*. These data consist of disbursements of loans made on concessional terms (net of repayments of principal)

and grants by official agencies of the members of the Development Assistance Committee (DAC), by multilateral institutions, and by non-DAC countries. The measure includes loans with a grant element of at least 25 percent (calculated at a rate of discount of 10 percent).[4] While the aim of ODA is to promote economic development and welfare, it is not solely directed towards institutional reform. Among other things, ODA is used as disaster relief, is directed towards health care and education, and funds infrastructure. It is nonetheless of interest to know whether ODA flows *in toto* (rather than flows directed specifically towards reform) are associated with institutional reform. In particular, if aid advances human capital formation, for example, the associated positive growth effects will be diminished if aid is also associated with back-sliding on market-oriented institutions. Aid directed towards education might loosen a budget constraint and allow investment in institutional reform. However, in loosening a budget constraint, it might also embolden groups to ramp up pressure for subsidies or other policies that are costly but serve their narrow interests.

We measure interest group influence, Groups, using a count of the number of interest groups in a country. The source for these counts is the *World Guide to Trade Associations*. Aggregate group counts from the *Guide* have been used in a number of prior studies that explore group formation determinants as well as the impact of groups on macroeconomic outcomes and monetary policy (see, for example, Murrell (1984), Heckelman (2000), Bischoff (2003), Aidt (2010), Heckelman and Wilson (2021)). The *Guide* has been published episodically and only six times, in 1973, 1980, 1985, 1995, 1999, and 2002. As a result, the counts used correspond to initial (rather than average) values for each time period, and the counts do not always line-up with the start of each period. We use counts from the 1973, 1985, 1995, and 2002 editions, respectively, for the four time periods 1975-1985, 1985-1995, 1995-2005, and 2005-2015. Olson (1982) notes that competition between groups may increase as groups grow in number, even while he supposes that collective action problems preclude sufficient group

[4] We note that there are no observations in these data that take the value 0. Net flows are recorded as either positive, negative, or missing values. We further note that while most studies feature aid as a share of gross national income, some examine aid per capita.

formation to ensure efficient outcomes through comprehensive bargaining. In this case, one would expect the marginal influence of groups to be diminishing in the number of groups. We therefore use the natural log of the group counts (plus 1, since some countries have zero groups) in the analysis instead of the raw group counts.

Summary statistics for each of the six measures of reform and the associated level of market-orientation in institutions as well as for aid and the group counts are reported in table 1. The mean of each measure of reform is positive, indicating movement towards more market-oriented institutions on average in the sample. The magnitude of movement on average is modest. The level of each measure of market-orientation in institutions can range from 0 to 10. The average change in these levels ranges from 0.397 (for regulation) to 0.855 (for sound money). The minimum and maximum values of reform indicate substantial movement away from and towards market-oriented institutions in some cases. For example, in the case of international trade, Iran dropped 8.919 points during the 1975-1985 period. Argentina gained 7.021 during the 1985-1995 period.

The mean level of net aid flow as a share of GNI is just under 5%, with values that range from -0.05% to 34.5%.

As indicated in equation (3), all specifications include groups as well as the interaction between groups and the relevant measure of institutions (the initial value of the economic freedom index or one of its components).[5] Remaining control variables included are inspired primarily by Heckelman and Knack (2008) and include the initial value of the economic freedom index (or one of its components), the initial level of real GDP, the initial size of the population, the initial level of democracy, and the initial level of a measure of ethnic fractionalization. The initial value of the economic freedom index (or one of its components) is included, as reform (the

[5] The model's two interaction terms imply five lower-order terms: Aid, Groups, Inst, Groups·Inst, and Aid·inst. All are included in the model, with one exception: Aid·Inst. On theoretical grounds, we have no reason to include it. It is however a common empirical practice to include all lower-order terms. Without Aid·Inst in the model, the coefficient estimates on our two interaction terms of interest (Aid·Groups and Aid·Groups·Inst) are statistically significant and of the hypothesized signs. (See table 2.) When we add Aid·Inst, the magnitude of the estimates declines slightly (from 0.045 to 0.040 and from -0.011 to -0.010), and the pvalues rise from 0.005 to 0.138 and from 0.001 to 0.150. The coefficient estimate on Aid·Inst is -0.003 and its pvalue is 0.818. F tests of joint significance indicate that our two interactions of interest are jointly significant, but that Aid·Inst is not jointly significant with either (or both) of our interactions of interest. This evidence is consistent with our theory and suggests that the additional interaction does not belong in the model and that including it unnecessarily reduces statistical power.

change in the index) may depend on the existing extent of market-orientation in institutions and also to avoid the possibility that a lower order effect gets captured by the related interaction terms. The initial level of real GDP is included as more developed nations may be more prone to reform for a given level of institutions. In addition, more developed nations are known to accumulate more interest groups (Murrell 1984; Bischoff 2003; Coates, Heckelman, and Wilson 2007). The inclusion of the initial level of real GDP therefore also controls for the possibility that groups or interaction terms based on groups capture an economic development effect on reform. Both GDP and population are included in log form. The specification therefore allows for the possibility that GDP per capita matters for reform rather than GDP. The initial level of democracy is included as political institutions may affect reform of economic institutions. A measure of ethnic fractionalization is included as diversity has been tied to institutions (see, for example, Alesina, Baqir, and Easterly 1999; La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1999; Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg 2003; Desmet, Ortuño-Ortin, and Wacziarg 2012; Heckelman and Wilson 2018) and may thus impact reform.

Our data consist of an unbalanced panel of a maximum of 259 observations on a maximum of 92 countries and four time periods, 1975-1985, 1985-1995, 1995-2005, and 2005-2015. Summary statistics for all variables are included in table 1. Due to potential endogeneity of aid (attributable especially to omitted variables and reverse causality), we estimate the model using both OLS and IV, with region and time fixed effects, and without fixed effects.

To capture region fixed effects, we use the World Bank's analytical groupings - East Asia and Pacific, Europe and Central Asia, Latin American and Caribbean, Middle East and North Africa, South Asia, and Sub-Saharan Africa. We opt for region rather than country effects as a control for omitted variables because we are interested in knowing whether and why the impact of aid may be different across countries. In other words, we are interested in between-unit variation, not only within-unit variation. Country fixed effects would discard all the between-unit variation of interest and produce an estimate of within-unit effects only. As it turns out, much of the variation in both aid and groups in the data is between-unit rather

than within. The overall standard deviation of aid is 6.114, with between- and within-unit standard deviations of 5.477 and 2.623, respectively. The corresponding figures for groups are 1.108 (overall), 1.165 (between), and 0.385 (within). While unit-level fixed effects might better control for time-invariant confounders, they would eliminate not only most of the variation of interest but most of the variation overall.

In IV estimation, we treat aid as well as the interaction terms that include aid as endogenous in part due to potential for reverse causality.[6] While aid is presumed to effect reform, reform may also effect aid. In particular, grantors may base aid allocation decisions on evidence of past reform (or lack thereof). A priori, the direction of such a response is unclear. Grantors may interpret reform as an indication that less aid is needed or that more aid is likely to be especially productive. They may interpret lack of reform as an indication that more aid is needed or that more aid is likely to be unproductive. In practice, Annen and Knack (2021) identify a positive impact of reform on aid, suggesting we might anticipate that OLS estimates of the relation between aid and reform are upward biased.

A reviewer pointed out to us an additional reason to prefer IV estimates over OLS - omitted variables bias related to aid. In particular, aid-for-policy agreements (in which donors agree to grant aid in exchange for reform) could produce omitted variables bias, as highlighted in the international relations literature on foreign influence. (See, for example, Aidt, Albornoz, and Hauk 2021.) An aid-reform relation in the data may reflect reform that took place in exchange for aid. This is a relation that we wish to capture, if reform would not take place without aid. However, an aid-reform relation may also reflect reform that was going to take place anyway but that a nation delayed in order to receive aid it did not truly need for initiating the reform. In this latter case, aid did not actually cause reform. The aid-granting nation's desire to exert influence caused aid, but did not cause the reform that took place.

For the IV estimation, the perennial challenge is identification of valid instruments. A

[6] Nizalova and Murtazashvili (2016) show that the OLS estimate on an interaction term between an exogenous and endogenous variable can be consistent, suggesting the possibility that we might at least be able to draw inference based on the OLS estimates of the model's interaction terms. Unfortunately, as Bun and Harrison (2019) note, their result does not apply in the case of endogeneity due to simultaneity.

number of novel external instruments for aid have been proposed, including a UN voting record indicator that captures how often a nation votes in line with the average G7 country (Barro and Lee 2005; Dreher and Sturm 2012), a dummy variable for whether a nation has a temporary seat on the UN Security Council (Dreher, Eichenauer, and Gehring 2018; Kuziemko and Werker 2006), and an interaction of donor government fractionalization with a recipient country's probability of receiving aid (Dreher and Langlotz 2020). While a few others have used these instruments with seeming success, they did not prove relevant for us, based on an examination of Sanderson-Windmeijer F statistics in the first-stage. Furthermore, Dreher, Eichenauer, and Gehring (2018) argue that studies using political interest variables as instruments for overall aid are estimating only the effect of politically motivated aid and thus bias downward the effect of all aid. Without valid excluded instruments, we are forced to go another direction.

System GMM would allow us to estimate the model in both levels and differences and would make available internal instruments. Unfortunately, our panel is relatively short, with a maximum of $t = 4$, and it is also unbalanced. The incidence of missing observations is such that very few observations are available if the data are differenced. As a result, we do not estimate the model using System GMM.

Instead, we harken back to Kelejian (1971) who also considered a manner for developing a set of internal instruments. Given that any predetermined variable is also predetermined in any higher power (such as squared, cubed, etc.) and any two predetermined variables interacted with each other creates a new variable which is also predetermined, Kelejian (1971) shows an approximation from a polynomial representation of all the exogenous covariates will yield a set of instruments which are correlated with the endogenous variables, uncorrelated with e_{it}, and linearly independent.[7] He further proves that consistency of the IV estimators does not require the original model to be linear in the variables as long as it is linear in the parameters. His results are also shown to hold if any of the endogenous variables are interacted with an exogenous variable, as in, for example our Aid·Groups interaction.

[7] For applications of Kelejian's method, see Gawande and Bandyopadhyay (2000) and Bun and Harrison (2019).

A few potential limitations arise from relying on this procedure. First, if the functional forms are approximated by polynomials, the polynomials must be of the same degree to obtain consistent estimates. Although Kelejian proves there is some finite order at which the exogenous variables and the predicted values from the first stage regressions will be linearly independent, what that order is, however, is unknown.

Second, while more is usually better, given the number of variables in the model, each additional order in the polynomial increases the instrument count substantially, potentially leading to problems associated with instrument proliferation (see, for example, Wooldridge 2002, p. 204). Because polynomial approximations in applied economic modelling are usually limited to squares, to limit instrument proliferation, we adopt the following second-order polynomial:

$$z = [w^2 \quad x^2 \quad w \cdot x \quad w^2 \cdot x \quad w \cdot x^2], \tag{5}$$

where w includes Groups and Groups·Inst (predetermined variables that interact with the endogenous variable, Aid) and x includes all predetermined variables that enter the model (equation 3) only additively. This approach leaves us with 63 excluded instruments for our three endogenous variables involving Aid, well below the number of cross-sectional units (92 nations).

Finally, there is no guarantee the internal instruments are any more correlated with the endogenous variables than the rejected excluded instruments. We only know the IV estimates will be consistent, as long as the same polynomial order is used for all exogenous variables. As it turns out, the findings indicates that these internal instruments are far more relevant than the external instruments noted above.

V. Findings

For each measure of reform (changes in economic freedom, government size, legal structure and property rights, sound money, international trade, and regulation), first we examine coefficient estimates for evidence that the impact of aid on reform is conditional on groups and the extent

of market-orientation in institutions. If groups exert influence in a market for institutions, we expect the coefficients on the aid interaction terms to be statistically significant and of the predicted signs ($\beta_2 > 0$ and $\beta_3 < 0$). Second we examine the conditional marginal effects implied by the estimates. We expect to find positive marginal effects operating through the market for institutions when the number of groups is large and there is less market-orientation of institutions. We expect to find negative marginal effects when the number of groups is large and there is more market-orientation of institutions.

Findings are reported in tables 2-5. There are two tables for each measure of reform. Coefficient estimates are reported in the first table and the implied conditional marginal effects are reported in the second table. Both OLS and IV results are reported, with p-values in parentheses. Two specifications are considered. The first includes no aid interaction terms and serves as a point of comparison. The second adds a two-way interaction between aid and groups and a three-way interaction between aid and groups and the extent of market-orientation in institutions.

Before turning to the findings of primary interest, we first note that in all cases, Sanderson-Windmeijer F tests do not suggest a weak instrument problem. In addition, Hansen J p-values indicate we cannot reject instrument exogeneity. We also note that the coefficient on Aid is rarely statistically significant and never statistically significant in the case of estimation by IV and with fixed effects. This finding implies there is little direct effect of aid on reform outside the market for institutions.

Turning to the findings of primary interest, the coefficient estimates in table 2a reveal evidence of the hypothesized market for institutions in the presence of aid. The coefficients on Aid·Groups and Aid·Groups·EF are statistically significant and of the hypothesized signs (positive and negative, respectively). In magnitude, the coefficient estimates on the interaction terms are larger when estimated by IV than with OLS. The coefficient estimates also provide some evidence of a market for institutions independent of aid. When fixed effects are employed, both OLS and IV estimates on Groups and Groups·EF are statistically significant and of the

hypothesized signs (positive and negative, respectively).

Coefficient estimates for the remaining control variables do not reveal any surprises. There is evidence of less reform in nations with higher levels of economic freedom, as expected. Neither GDP nor population are statistically significantly related to reform. Democracy is positively associated with reform. While not all of the estimates are statistically significant, there is some evidence that ethnic fractionalization is negatively associated with reform, consistent with prior studies.

In table 2b, we report conditional marginal effects of aid on reform implied by the coefficient estimates in table 2a. We report effects at all combinations of the minimum, mean, and maximum levels of groups and economic freedom. The nature of the findings is such that examining these combinations is sufficient to get an informative snapshot of the effects, clearer than might be generated by the kind of 3-D plot that would be necessary to literally visualize the full continuum. At and above the mean level of groups and at low levels of economic freedom, the conditional marginal effects of aid on reform are positive and statistically significant. This finding is consistent with our hypothesis that in countries with limited economic freedom, groups favor institutional reform and use the aid process as a means of securing it. At and above the mean level groups and at high levels of economic freedom, the conditional marginal effects of aid on reform are negative and statistically significant. This finding is consistent with our hypothesis that in countries with high levels of economic freedom, groups oppose institutional reform and are able to secure institutional back-sliding in the context of aid shocks.

To further identify the extent of statistically significant conditional marginal effects, we conduct a rough grid-search of outcomes for various combinations of levels of groups and economic freedom. As the discrete findings in table 2b suggest, we find that the positive conditional marginal effects apply to a relatively small number of cases. Consider, for example, the IV results with fixed effects. The positive and statistically significant effects apply to roughly seven observations and seven countries (Argentina, Bangladesh, Brazil, Nicaragua,

Peru, Uganda, and Zimbabwe), all with economic freedom scores less than or equal to 3.00, well below the mean of 5.55. In contrast, the estimated negative conditional marginal effects apply to well over 100 observations.

The magnitude of the estimated effects is arguably substantial. Consider again the IV results with fixed effects. The standard deviation of aid is 6.129. At the mean of groups and a level of economic freedom of 5.7 (slightly above the mean of 5.5), the conditional marginal effect of aid is -0.049. At these levels of groups and economic freedom, a one standard deviation increase in aid is thus associated with a change in reform of -0.300 (-0.049*6.129). The results thus imply that a one standard deviation increase in aid leads to a backsliding in economic freedom over half as large in magnitude as the sample average advance in economic freedom. The effect is substantially larger at higher levels of groups and economic freedom.

We note that in table 2a, the coefficient estimates on Aid are small in magnitude and not statistically significant - whether or not we control for a market for institutions. Only by controlling for a market for institutions and by examining conditional marginal effects do we find evidence that aid affects reform (positively in a few cases and negatively in many).

We next turn to findings for the various components of the economic freedom index, in order to discern whether any particular component(s) might be driving or tempering the results. Findings for the government size component are reported in tables 3a and 3b and are similar to the findings for the overall index. In table 3a, the coefficient estimates on Aid·Groups and Aid·Groups·G are statistically significant and of the hypothesized signs (positive and negative, respectively), consistent with the hypothesized market for institutions in the presence of aid. The coefficient on Aid is statistically significant (and negative) in some cases, but not when estimation is by IV with fixed effects. In contrast to the findings for the overall index, there is no evidence of a market for institutions independent of aid, as the coefficient estimates on Groups and Groups·G are not statistically significant in any case. Conditional marginal effects of aid are reported in table 3b. Compared to the overall index, in the case of the government size component, we find even less evidence of positive marginal effects and more

evidence of negative marginal effects. The positive and statistically significant effects apply to only two observations and two countries (Slovenia and Egypt). Compared to the findings for the overall economic freedom, the coefficient on Aid is much larger in magnitude. As such, the smaller number of positive effects is driven largely by the negative coefficient on Aid, rather than by less evidence of a market for institutions in which groups pursue smaller government when government is especially large (and the government size component of the index is thus especially small). If we examine the conditional marginal effects of aid working only through the market for institutions, we find 14 observations and 12 countries with positive conditional marginal effects. The negative and statistically significant effects apply to over two hundred observations. Again, the larger number of such effects compared to the overall index is largely driven by the negative coefficient on aid, rather than by a greater effect through the market for institutions.

The economic freedom index treats larger government as associated with less economic freedom. We note though that if aid produces larger government that is associated with enhanced state capacity, reduced economic freedom due to larger government may be economically beneficial. The normative implications of the conditional marginal effects of aid on the change in government size are thus not entirely clear.

Findings for the sound money and regulation components of the index are reported in tables 4-5. The coefficient estimates in tables 4a and 5a again offer evidence of a market for institutions in the context of aid, although the coefficient on Aid·Groups is not generally statistically significant when fixed effects are employed. In neither case do we find evidence of a market for institutions independent of aid. In the case of sound money, the findings in table 4b reveal no evidence of positive conditional marginal effects of aid. As in the case of government size, there are positive effects working through the market for institutions. However, they are swamped by the impact of aid independent of institutions. In the case of regulation, the findings in table 5b are similar. In this case though, although effects working independently of the market for institutions are not significant, the positive impact of groups when regulation

is high (and the regulation component of the index score is small) is not sufficiently large to produce positive conditional marginal effects.

The final two components of the economic freedom index are legal structure and property rights and international trade. In these cases, we find no evidence of a market for institutions in the context of aid. We do find evidence of a market for institutions independent of aid. Coefficient estimates and conditional marginal effects are not reported here to reduce the number of tables but they are available upon request.

Overall, the findings suggest that aid has generally been associated with a perverse decline in the market-orientation of institutions. Some of this decline is associated with interest groups, consistent with the hypothesis that aid shocks generate rent seeking. The findings also suggest that aid has been associated with pro-market reform in countries with especially low levels of market-orientation in institutions and in which there are relatively large numbers of interest groups. Put differently, through the market for institutions, under certain conditions, the findings indicate that a positive influence from interest groups has been sufficient to overcome other adverse influences and has generated a net positive impact on reform in response to aid shocks. This result is consistent with Doner and Schneider's (2000) claim that in especially weak institutional environments, groups support market-oriented reform.

Considering the individual components of the economic freedom index, the government spending component of the index appears to be a key driver of the positive marginal effects of aid (when groups are high and market-orientation in these components low) and also contributes to the negative marginal effects (when market-orientation is high). In the case of the sound money and regulation components of the index, we find adverse effects of aid on reform. However, these adverse effects are largely independent of the market for institutions. Through the market for institutions, groups attenuate these affects when groups are high and market orientation is low and contribute to them when market orientation is high.

V. Sensitivity Analysis

We examine the sensitivity of the findings along several dimensions. Much of the literature

examines five-year time periods rather than 10-year periods. We therefore examine findings using six five-year periods (1975-1980, 1980-1985, 1985-1990,[8] 1995-2000, 2000-2005, and 2005-2010) instead of our baseline of four 10-year periods (1975-1985, 1985-1995, 1995-2005, and 2005-2015). As seen in table 6a, using five-year periods, and considering the overall economic freedom index, coefficient estimates on the interaction terms reveal little evidence of a market for institutions (not in the context of aid and not independent of aid). Conditional marginal effects in table 6b reveal some evidence of a positive relation between aid and reform when estimation is by OLS. However, when estimation is by IV, there is no evidence of a relation between aid and reform.

The lack of relation between aid and reform over five year periods is consistent with our prior that institutional change (at least as captured by the economic freedom index and its components) takes a fairly long time. As a check on this idea, we examined 5-year periods, but used lags of explanatory variables. For example, reform for the 1980-1985 period is matched with aid for the 1975-1979 period and with groups in 1973. As seen in table 7a, the coefficient estimates on Aid·Groups and Aid·Groups·EF are suggestive of a market for institutions in the context of aid, but are not statistically significant. In contrast, the coefficient estimates on Groups and Groups·EF are consistent with a market for institutions independent of aid. Conditional marginal effects in table 7b again reveal some evidence of a positive relation between aid and reform when estimation is by OLS. However, when estimation is by IV, none of the positive estimates are statistically significant. When there is a relatively large number of groups and economic freedom is relatively high, the estimates reveal a statistically significant negative impact of aid on reform.

Our next sensitivity analysis check is a sample split motivated by Heckelman and Knack (2008), who identify different effects of aid on reform in African than in non-African nations. Our findings for this sample split are reported in tables 8a and 8b. (To fit findings in two tables

[8] Our interest group data are available in 1985 and 1995, but not in 1990. As a result, there is a gap in the time dimension of our panel between 1990 and 1995.

only, we do not report results without fixed effects. The findings for African nations control for time fixed effects. The findings for non-African nations control for both region and time fixed effects.) As seen in table 8a, for African nations, while the coefficients on Aid·Groups and Aid·Groups·EF have signs consistent with a market for institutions, the estimates are not statistically significant. For non-African nations, the estimates are both properly signed and statistically significant. We note that in neither sample are the coefficient estimates on Groups and Groups·EF statistically significant. Conditional marginal effects in table 8b, indicate a positive relation between aid and reform in both African and non-African nations, though there is more evidence of such effects among the latter nations than the former. There are no statistically significant negative conditional marginal effects of aid on reform in either sample.

Finally, we examine the findings when observations with low amounts of aid are omitted. As the summary statistics indicate, there are some observations with negative amounts of aid. There are 98 observations (over one-third of the sample) with aid levels of one percent of GNI or less. There are 73 observations with aid levels less than half a percent of GNI or less. Findings when these 73 observations are omitted are reported in tables 9a and 9b. Findings are quite similar to those for the full sample.

VII. Concluding Remarks

The literature on aid and market-oriented reform has arguably failed to produce a substantial body of evidence that aid advances reform and offers some evidence that aid has been associated with back-sliding in the market-orientation of institutions. Such back-sliding is a serious concern. Even if aid alleviates immediate hardships, contributes to health and education outcomes, or advances public goods provision, the cost of institutional back-sliding may ultimately offset or wipe-out those benefits.

One potential explanation for this seeming failure is that institutions are not exogenous but are determined via a process of exchange between policymakers and special interests. As a result, grants of aid may be understood as a shock to the market for institutions. To the extent the market for institutions is captured by special interests, grants of aid may produce

rent seeking that generates unintended consequences. In our analysis of a panel of aid-receiving countries, we find evidence of a market for institutions and of institutional capture by special interests. Moreover, we find evidence of both positive and negative conditional marginal effects of aid on reform. The existence of conditional marginal effects may explain prior literature's collective failure to identify clear average marginal effects. In addition, our findings suggest that the impact of aid on reform manifests only after a relatively long period of time (more than five years). Although some studies find evidence of effects over much shorter periods of time, researchers that fail to identify such effects should consider the possibility that effects may be relatively slow to emerge.

In addition to offering insight into findings of prior literature, the conditional marginal effects identified offer important information for aid grantors. In countries with very low levels of market-orientation in institutions and middling to large numbers of interest groups, aid appears to have been positively associated with reform. The findings thus suggest that aid is most likely to advance economic growth and development in countries with these features. The findings also highlight the possibility that in such environments, interest groups may be friends of reform and might be useful to aid grantors. In countries with levels of market-orientation in institutions near and above the mean, aid appears to have been associated with institutional back-sliding. The findings thus also raise the disturbing possibility that aid may do more harm than good in some contexts.

Although the findings suggests reasons to be concerned about the impact of aid in nations with relatively high levels of market-orientation in institutions, further research is clearly needed to fully understand the policy implications. In particular, our work examines aggregate ODA. It does not distinguish between aid directed towards humanitarian efforts; aid directed towards health, education, or public goods; and aid directed specifically towards reform. As a result, our findings do not reveal whether different sorts of aid are equally or differentially associated with reform back-sliding. We know that back-sliding damages economic growth (Grier and Grier 2021), growth that can be life-saving. Back-sliding on reform in under-

developed nations therefore endangers future lives. We also know that some forms of aid save current lives, especially humanitarian and health-related aid. Our prior is that such aid may be the source of some of the reform back-sliding identified by our findings - as any loosening of government budget constraints has the potential to incentivize groups into action in pursuit of narrow benefits. However, if that prior is wrong, the cutting of such aid in order avoid institutional back-sliding would also be wrong. In addition, if aid directed towards institutional reform actually generates back-sliding but other forms of aid do not, aid could be reallocated toward its more productive uses. Clarity on these fronts will require a study using aid data disaggregated by purpose. In addition to a study examining disaggregated ODA, work exploring Chinese economic development finance may reveal important conditional effects.

A reviewer suggested to us an additional project for future research, related to reform of political rather than economic institutions. The reviewer noted in particular that in some nations (e.g., Belarus, Iran, Russia, China), elites may capture political institutions. While they may allow reform of economic institutions, they may block reform of political institutions in order to maintain power. As we have explored how sectional pressure groups influence reform of economic institutions in the context of aid shocks, future research might explore how elites influence reform of political institutions in the context of aid shocks.

Although we find evidence of conditions under which aid has promoted institutional reform, those conditions appear to be quite limited. In certain ways, our findings are discouraging about the prospect of institutional reform. Evidence that institutions are endogenously determined implies that efforts to exogenously generate reform may not succeed or may at least be quite costly. Moreover, the findings highlight the possibility of costly unintended consequences through the political sphere of efforts to intervene in the economic sphere. The challenging reality of a political economy though should arguably not deter us from the general project of market-oriented reform. As Grier and Grier (2021) show, the potential for market-oriented reform to enhance economic development and welfare is substantial. While our findings suggests that aid has a productive role to play in the project of institutional reform in some nations, in

others, more work is needed to determine what sorts of aid might save lives and help the poor today without damaging future lives and prospects.

TABLE 1 - Summary Statistics

	Mean	Std. Dev.	Min.	Max.
Δ Economic Freedom	0.517	0.924	-2.629	4.102
Economic Freedom	5.549	1.198	1.841	7.924
Δ Government Size	0.400	1.224	-2.879	4.267
Government Size	6.027	1.462	1.573	9.307
Δ Legal Structure and Property Rights	0.410	1.089	-1.651	3.724
Legal Structure and Property Rights	4.073	1.312	1.059	7.555
Δ Sound Money	0.855	2.185	-6.402	8.180
Sound Money	6.244	2.242	0.000	9.682
Δ International Trade	0.613	1.793	-8.919	7.021
International Trade	5.619	2.137	0.000	10.000
Δ Regulation	0.397	0.851	-2.699	3.619
Regulation	5.853	1.227	2.346	9.143
Aid	4.849	6.129	-0.052	34.512
Raw Groups	31.868	40.975	0.000	315.000
ln(1+ Raw Groups)	2.936	1.108	0.000	5.756
ln(GDP)	23.226	1.731	19.149	28.277
ln(population)	16.235	1.471	12.947	20.988
Democracy	3.990	1.608	1.000	7.000
Fractionalization	0.517	0.317	0.001	3.382

TABLE 2a - Reform (Δ Economic Freedom) and Aid

	OLS				IV			
	No fixed effects		*Fixed effects*		*No fixed effects*		*Fixed effects*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	0.013	0.001	0.008	0.009	0.005	-0.014	0.005	-0.002
	(0.383)	(0.966)	(0.544)	(0.681)	(0.799)	(0.495)	(0.792)	(0.909)
Aid·Groups		0.046		0.029		0.059		0.045
		(0.002)		(0.043)		(0.001)		(0.005)
Aid·Groups·EF		-0.009		-0.007		-0.012		-0.011
		(0.001)		(0.012)		(0.001)		(0.001)
Groups	-0.043	0.008	0.296	0.400	-0.070	-0.009	0.285	0.421
	(0.788)	(0.965)	(0.125)	(0.081)	(0.650)	(0.960)	(0.120)	(0.057)
Groups·EF	-0.011	-0.023	-0.054	-0.071	-0.006	-0.019	-0.052	-0.073
	(0.675)	(0.459)	(0.074)	(0.041)	(0.806)	(0.518)	(0.067)	(0.028)
EF	-0.389	-0.263	-0.340	-0.203	-0.411	-0.260	-0.349	-0.162
	(0.000)	(0.007)	(0.001)	(0.094)	(0.000)	(0.007)	(0.000)	(0.160)
GDP	0.069	0.019	-0.011	-0.061	0.044	-0.051	-0.024	-0.140
	(0.377)	(0.770)	(0.901)	(0.479)	(0.629)	(0.487)	(0.797)	(0.117)
Population	-0.037	0.014	-0.057	-0.002	0.023	0.059	-0.050	0.059
	(0.575)	(0.792)	(0.486)	(0.977)	(0.744)	(0.291)	(0.538)	(0.422)
Democracy	0.150	0.152	0.092	0.098	0.150	0.152	0.092	0.102
	(0.000)	(0.000)	(0.010)	(0.006)	(0.000)	(0.000)	(0.006)	(0.003)
Fractionalization	-0.249	-0.222	-0.171	-0.173	-0.253	-0.225	-0.173	-0.185
	(0.033)	(0.072)	(0.131)	(0.147)	(0.024)	(0.071)	(0.110)	(0.120)
SW - Aid					85.45	198.22	55.56	187.54
SW - Aid·Groups						68.83		52.66
SW - Aid·Groups·EF						46.11		45.09
Hansen J p-val					0.275	0.135	0.347	0.385
Observations	257	257	257	257	257	257	257	257

Notes: Dependent variable is the change in the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 2b - Conditional Marginal Effects of Aid on Reform (Δ Economic Freedom)

	No fixed effects			*Fixed effects*		
Groups(↓) EF(→)	min	mean	max	min	mean	max
Panel a - OLS						
min	0.001	.001	.001	0.009	0.009	0.009
	(0.966)	(0.966)	(0.966)	(0.681)	(0.681)	(0.681)
mean	0.087	-0.013	-0.076	0.058	-0.017	-0.065
	(0.000)	(0.396)	(0.010)	(0.016)	(0.310)	(-0.065)
max	0.169	-0.026	-0.150	0.105	-0.042	-0.137
	(0.001)	(0.481)	(0.017)	(0.039)	(0.275)	(0.039)
Panel b - IV						
min	-0.014	-0.014	-0.014	-0.002	-0.002	-0.002
	(0.495)	(0.495)	(0.495)	(0.909)	(0.909)	(0.909)
mean	0.094	-0.037	-0.121	0.071	-0.045	-0.119
	(0.001)	(0.146)	(0.007)	(0.007)	(0.109)	(0.010)
max	0.197	-0.059	-0.223	0.142	-0.085	-0.231
	(0.001)	(0.256)	(0.011)	(0.011)	(0.125)	(0.012)

Notes: Conditional marginal effects of aid associated with table 2a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the overall economic freedom index. P-values are in parentheses.

TABLE 3a - Reform (Δ Government Size) and Aid

	OLS				IV			
	No fixed effects		*Fixed effects*		*No fixed effects*		*Fixed effects*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	-0.015	-0.046	-0.028	-0.040	-0.055	-0.059	-0.025	-0.037
	(0.420)	(0.014)	(0.104)	(0.081)	(0.014)	(0.024)	(0.303)	(0.208)
Aid·Groups		0.051		0.047		0.041		0.050
		(0.001)		(0.000)		(0.021)		(0.001)
Aid·Groups·G		-0.007		-0.009		-0.009		-0.010
		(0.003)		(0.000)		(0.003)		(0.000)
Groups	-0.166	-0.209	0.129	0.165	-0.205	-0.146	0.131	0.209
	(0.480)	(0.423)	(0.595)	(0.526)	(0.364)	(0.534)	(0.572)	(0.411)
Groups·G	0.032	0.027	-0.008	-0.020	0.040	0.031	-0.008	-0.024
	(0.428)	(0.524)	(0.851)	(0.632)	(0.298)	(0.428)	(0.836)	(0.558)
G	-0.604	0.500	-0.556	-0.412	-0.652	-0.534	-0.553	-0.385
	(0.000)	(0.001)	(0.000)	(0.004)	(0.000)	(0.000)	(0.000)	(0.005)
GDP	-0.200	-0.221	-0.363	-0.397	-0.358	-0.451	-0.349	-0.444
	(0.032)	(0.012)	(0.000)	(0.000)	(0.001)	(0.000)	(0.006)	(0.000)
Population	0.224	0.251	0.308	0.347	0.320	0.386	0.299	0.378
	(0.008)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.005)	(0.000)
Democracy	0.165	0.170	0.083	0.088	0.166	0.163	0.083	0.087
	(0.000)	(0.000)	(0.049)	(0.034)	(0.000)	(0.000)	(0.039)	(0.027)
Fractionalization	-0.116	-0.053	0.053	0.063	-0.139	-0.117	0.055	0.048
	(0.528)	(0.770)	(0.780)	(0.741)	(0.483)	(0.551)	(0.757)	(0.795)
SW - Aid					56.93	76.45	34.52	68.73
SW - Aid·Groups						126.51		125.37
SW - Aid·Groups·G						121.67		152.25
Hansen J p-val					0.626	0.729	0.354	0.372
Observations	258	258	258	258	258	258	258	258

Notes: Dependent variable is the change in the government size (G) component of the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 3b - Conditional Marginal Effects of Aid on Reform (Δ Government Size)

	No fixed effects			*Fixed effects*		
Groups(↓) G(→)	min	mean	max	min	mean	max
Panel a - OLS						
min	-0.046	-0.046	-0.046	-0.040	-0.040	-0.040
	(0.014)	(0.014)	(0.014)	(0.081)	(0.081)	(0.081)
mean	0.069	-0.027	-0.098	0.057	-0.057	-0.141
	(0.041)	(-0.179)	(0.004)	(0.022)	(0.004)	(0.000)
max	0.180	-0.009	-0.147	0.150	-0.074	-0.238
	(0.007)	(0.838)	(0.033)	(0.003)	(0.109)	(0.002)
Panel b - IV						
min	-0.059	-0.059	-0.059	-0.037	-0.037	-0.037
	(0.024)	(0.024)	(0.024)	(0.208)	(0.208)	(0.208)
mean	0.020	-0.095	-0.180	0.062	-0.075	-0.176
	(0.599)	(0.001)	(0.000)	(0.061)	(0.004)	(0.000)
max	0.097	-0.131	-0.298	0.157	-0.112	-0.310
	(0.199)	(0.018)	(0.002)	(0.014)	(0.044)	(0.001)

Notes: Conditional marginal effects of aid associated with table 3a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the government size component (G) economic freedom index. P-values are in parentheses.

TABLE 4a - Reform (Δ Sound Money) and Aid

	OLS				IV			
	No fixed effects		*Fixed effects*		*No fixed effects*		*Fixed effects*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	-0.041	-0.054	-0.032	-0.056	-0.052	-0.075	-0.044	-0.068
	(0.139)	(0.185)	(0.272)	(0.131)	(0.073)	(0.043)	(0.143)	(0.065)
Aid·Groups		0.031		0.028		0.043		0.037
		(0.096)		(0.138)		(0.052)		(0.089)
Aid·Groups·Money		-0.006		-0.003		-0.010		-0.008
		(0.027)		(0.146)		(0.006)		(0.026)
Groups	-0.968	-0.820	-0.478	-0.493	-1.007	-0.730	-0.524	-0.368
	(0.005)	(0.036)	(0.143)	(0.176)	(0.002)	(0.062)	(0.088)	(0.306)
Groups·Money	0.086	0.067	0.050	0.045	0.092	0.063	0.057	0.038
	(0.064)	(0.168)	(0.280)	(0.342)	(0.041)	(0.180)	(0.199)	(0.404)
Money	-0.880	-0.751	-0.821	-0.761	-0.905	-0.709	-0.851	-0.701
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
GDP	0.077	0.004	-0.148	-0.142	0.041	-0.191	-0.195	-0.354
	(0.580)	(0.980)	(0.423)	(0.487)	(0.770)	(0.324)	(0.305)	(0.120)
Population	-0.050	0.008	-0.049	-0.033	-0.032	0.120	-0.022	0.110
	(0.718)	(0.955)	(0.776)	(0.853)	(0.807)	(0.395)	(0.895)	(0.545)
Democracy	0.188	0.176	0.063	0.063	0.184	0.151	0.061	0.054
	(0.004)	(0.007)	(0.415)	(0.409)	(0.004)	(0.021)	(0.409)	(0.451)
Fractionalization	-0.428	-0.465	-0.295	-0.302	-0.434	-0.545	-0.304	-0.407
	(0.127)	(0.136)	(0.242)	(0.281)	(0.119)	(0.114)	(0.220)	(0.178)
SW - Aid					46.51	570.66	32.87	340.43
SW - Aid·Groups						97.85		68.85
SW - Aid·Groups·Money						49.55		45.66
Hansen J p-val					0.414	0.535	0.392	0.460
Stock-Wright p-val						0.187		0.060
Observations	259	259	259	259	259	259	259	259

Notes: Dependent variable is the change in the sound money (Money) component of the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 4b - Conditional Marginal Effects of Aid on Reform (Δ Sound Money)

	No fixed effects			*Fixed effects*		
Groups(↓) Money(→)	min	mean	max	min	mean	max
Panel a - OLS						
min	-0.054	-0.054	-0.054	-0.056	-0.056	-0.056
	(0.185)	(0.185)	(0.185)	(0.131)	(0.131)	(0.131)
mean	0.038	-0.071	-0.130	0.027	-0.036	-0.071
	(0.397)	(0.163)	(0.064)	(0.549)	(0.496)	(0.309)
max	0.126	-0.087	-0.204	0.108	-0.018	-0.087
	(0.159)	(0.434)	(0.174)	(0.250)	(0.878)	(0.562)
Panel b - IV						
min	-0.075	-0.075	-0.075	-0.068	-0.068	-0.068
	(0.043)	(0.043)	(0.043)	(0.065)	(0.065)	(0.065)
mean	0.050	-0.136	-0.239	0.040	-0.109	-0.191
	(0.370)	(0.040)	(0.012)	(0.459)	(0.096)	(0.042)
max	0.171	-0.196	-0.398	0.145	-0.148	-0.310
	(0.129)	(0.150)	(0.038)	(0.189)	(0.257)	(0.096)

Notes: Conditional marginal effects of aid associated with table 4a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the sound money (Money) component of the economic freedom index. P-values are in parentheses.

TABLE 5a - Reform (Δ Regulation) and Aid

	OLS				IV			
	No fixed effects		*Fixed effects*		*No fixed effects*		*Fixed effects*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	0.005	0.004	0.008	0.005	-0.018	-0.008	-0.011	-0.004
	(0.776)	(0.876)	(0.621)	(0.811)	(0.352)	(0.705)	(0.575)	(0.858)
					(0.422)	(0.758)	(0.644)	(0.875)
Aid·Groups		0.048		0.036		0.051		0.037
		(0.019)		(0.121)		(0.037)		(0.158)
						(0.085)		(0.315)
Aid·Groups·Reg		-0.009		-0.007		-0.011		-0.008
		(0.007)		(0.083)		(0.006)		(0.053)
						(0.018)		(0.090)
Groups	-0.322	-0.255	-0.008	0.023	-0.323	-0.165	-0.006	0.116
	(0.102)	(0.190)	(0.967)	(0.911)	(0.091)	(0.383)	(0.972)	(0.574)
Groups·Reg	0.047	0.036	0.004	-0.002	0.048	0.027	0.004	-0.011
	(0.147)	(0.268)	(0.901)	(0.945)	(0.128)	(0.375)	(0.891)	(0.723)
Reg	-0.460	-0.331	-0.369	-0.273	-0.480	-0.305	-0.380	-0.239
	(0.000)	(0.001)	(0.000)	(0.011)	(0.000)	(0.001)	(0.000)	(0.018)
GDP	-0.026	-0.055	-0.034	-0.060	-0.108	-0.174	-0.105	-0.177
	(0.752)	(0.457)	(0.700)	(0.482)	(0.266)	(0.074)	(0.283)	(0.084)
Population	0.016	0.064	-0.045	0.003	0.058	0.129	-0.002	0.079
	(0.797)	(0.262)	(0.573)	(0.964)	(0.408)	(0.050)	(0.982)	(0.322)
Democracy	0.056	0.059	0.019	0.027	0.053	0.051	0.019	0.025
	(0.095)	(0.093)	(0.593)	(0.456)	(0.099)	(0.130)	(0.585)	(0.462)
Fractionalization	-0.398	-0.425	-0.362	-0.382	-0.402	-0.452	-0.373	-0.414
	(0.010)	(0.009)	(0.014)	(0.014)	(0.005)	(0.004)	(0.006)	(0.005)
SW - Aid					61.02	1805.29	71.95	704.97
SW - Aid·Groups						38.60		34.60
SW - Aid·Groups·Reg						57.72		55.96
Hansen J p-val					0.508	0.405	0.443	0.537
Observations	250	250	250	250	250	250	250	250

Notes: Dependent variable is the change in the regulation (Reg) component of the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 5b - Conditional Marginal Effects of Aid on Reform (Δ Regulation)

	No fixed effects			*Fixed effects*		
Groups(↓) Reg(→)	min	mean	max	min	mean	max
Panel a - OLS						
min	0.004	0.004	0.004	0.005	0.005	0.005
	(0.876)	(0.876)	(0.876)	(0.811)	(0.811)	(0.811)
mean	0.083	-0.008	-0.093	0.066	-0.002	-0.065
	(0.023)	(0.573)	(0.007)	(0.108)	(0.924)	(0.115)
max	0.161	-0.019	-0.187	0.124	-0.008	-0.133
	(0.028)	(0.590)	(0.011)	(0.131)	(0.829)	(0.118)
Panel b - IV						
min	-0.008	-0.008	-0.008	-0.004	-0.004	-0.004
	(0.705)	(0.705)	(0.705)	(0.858)	(0.858)	(0.858)
mean	0.067	-0.044	-0.148	0.049	-0.035	-0.114
	(0.145)	(0.053)	(0.001)	(0.322)	(0.160)	(0.019)
max	0.140	-0.079	-0.285	0.100	-0.066	-0.221
	(0.123)	(0.109)	(0.002)	(0.307)	(0.219)	(0.026)

Notes: Conditional marginal effects of aid associated with table 5a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the regulation (Reg) component of the economic freedom index. P-values are in parentheses.

TABLE 6a - Five-year Sample, Reform (Δ Economic Freedom) and Aid

	OLS				IV			
	No fixed effects		*Fixed effects*		*No fixed effects*		*Fixed effects*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	0.013	0.003	0.009	0.001	0.009	0.007	0.007	0.005
	(0.070)	(0.786)	(0.207)	(0.928)	(0.212)	(0.443)	(0.408)	(0.631)
Aid·Groups		0.009		0.002		0.011		0.006
		(0.398)		(0.900)		(0.430)		(0.690)
Aid·Groups·EF		-0.001		0.001		-0.002		-0.001
		(0.691)		(0.794)		(0.452)		(0.741)
Groups	-0.212	-0.273	-0.046	-0.112	-0.225	-0.225	-0.052	-0.062
	(0.045)	(0.027)	(0.682)	(0.377)	(0.040)	(0.064)	(0.644)	(0.622)
Groups·EF	0.021	0.027	-0.002	0.006	0.023	0.021	0.001	-0.000
	(0.253)	(0.176)	(0.933)	(0.744)	(0.225)	(0.293)	(0.977)	(0.991)
EF	-0.237	-0.249	-0.230	-0.262	-0.246	-0.223	-0.234	-0.226
	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)	(0.004)	(0.001)	(0.005)
GDP	0.045	0.058	0.051	0.068	0.032	0.035	0.043	0.048
	(0.196)	(0.109)	(0.274)	(0.159)	(0.372)	(0.434)	(0.338)	(0.351)
Population	0.013	0.008	-0.032	-0.043	0.020	0.023	-0.027	-0.027
	(0.681)	(0.792)	(0.418)	(0.291)	(0.522)	(0.503)	(0.484)	(0.511)
Democracy	0.077	0.079	0.057	0.057	0.078	0.079	0.058	0.058
	(0.000)	(0.000)	(0.013)	(0.015)	(0.000)	(0.000)	(0.008)	(0.008)
Fractionalization	-0.007	0.009	-0.041	-0.036	-0.010	0.002	-0.044	-0.038
	(0.911)	(0.898)	(0.544)	(0.623)	(0.863)	(0.974)	(0.513)	(0.607)
SW - Aid					31.75	218.43	29.81	174.70
SW - Aid·Groups						59.13		72.49
SW - Aid·Groups·EF						117.29		190.57
Hansen J p-val					0.293	0.327	0.454	0.405
Observations	388	388	388	388	388	388	388	388

Notes: Dependent variable is the change in the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 6b - Five-year Sample, Conditional Marginal Effects of Aid on Reform (Δ Economic Freedom)

	No fixed effects			*Fixed effects*		
Groups(↓) EF(→)	min	mean	max	min	mean	max
Panel a - OLS						
min	0.003	0.003	0.003	0.001	0.001	0.001
	(0.786)	(0.786)	(0.786)	(0.928)	(0.928)	(0.928)
mean	0.027	0.017	0.012	0.009	0.015	0.019
	(0.206)	(0.040)	(0.554)	(0.709)	(0.062)	(0.337)
max	0.049	0.031	0.020	0.016	0.029	0.037
	(0.241)	(0.110)	(0.622)	(0.726)	(0.123)	(0.367)
Panel b - IV						
min	0.007	0.007	0.007	0.005	0.005	0.005
	(0.443)	(0.443)	(0.443)	(0.631)	(0.631)	(0.631)
mean	0.029	0.009	-0.004	0.016	0.007	0.001
	(0.274)	(0.492)	(0.862)	(0.543)	(0.559)	(0.954)
max	0.050	0.010	-0.015	0.028	0.010	-0.002
	(0.347)	(0.697)	(0.753)	(0.604)	(0.707)	(0.971)

Notes: Conditional marginal effects of aid associated with table 6a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the overall economic freedom index. P-values are in parentheses.

TABLE 7a - Five-year Sample with Lags, Reform (Δ Economic Freedom) and Aid

	OLS				IV			
	No fixed effects		*Fixed effects*		*No fixed effects*		*Fixed effects*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	-0.000	0.000	0.004	0.005	-0.007	-0.005	0.002	0.003
	(0.978)	(0.992)	(0.480)	(0.544)	(0.491)	(0.662)	(0.786)	(0.761)
Aid·Groups		0.023		0.018		0.025		0.021
		(0.118)		(0.147)		(0.205)		(0.227)
Aid·Groups·EF		-0.005		-0.004		-0.005		-0.004
		(0.062)		(0.089)		(0.110)		(0.121)
Groups	0.217	0.262	0.281	0.325	0.192	0.258	0.277	0.327
	(0.030)	(0.021)	(0.018)	(0.018)	(0.035)	(0.019)	(0.011)	(0.018)
Groups·EF	-0.036	-0.045	-0.042	-0.050	-0.032	-0.044	-0.041	-0.050
	(0.035)	(0.016)	(0.024)	(0.016)	(0.037)	(0.010)	(0.015)	(0.011)
EF	-0.077	-0.006	-0.068	-0.002	-0.093	-0.008	-0.071	0.005
	(0.239)	(0.923)	(0.324)	(0.973)	(0.122)	(0.901)	(0.267)	(0.935)
GDP	0.004	-0.011	-0.054	-0.068	-0.021	-0.041	-0.059	-0.078
	(0.936)	(0.787)	(0.280)	(0.155)	(0.699)	(0.398)	(0.296)	(0.144)
Population	-0.022	-0.004	0.003	0.024	-0.008	0.015	0.007	0.032
	(0.546)	(0.915)	(0.938)	(0.562)	(0.850)	(0.672)	(0.876)	(0.433)
Democracy	0.043	0.044	0.026	0.028	0.045	0.045	0.027	0.029
	(0.043)	(0.035)	(0.249)	(0.211)	(0.029)	(0.024)	(0.221)	(0.177)
Fractionalization	-0.165	-0.145	-0.082	-0.070	-0.172	-0.151	-0.084	-0.071
	(0.038)	(0.058)	(0.274)	(0.346)	(0.022)	(0.035)	(0.236)	(0.309)
SW - Aid					37.08	236.92	29.99	165.92
SW - Aid·Groups						57.21		81.25
SW - Aid·Groups·EF						117.46		154.16
Hansen J p-val					0.251	0.280	0.561	0.573
Observations	390	390	390	390	390	390	390	390

Notes: Dependent variable is the change in the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 7b - Five-year Sample with Lags, Conditional Marginal Effects of Aid on Reform (Δ Economic Freedom)

	No fixed effects			*Fixed effects*		
Groups(↓) EF(→)	min	mean	max	min	mean	max
Panel a - OLS						
min	0.000	0.000	0.000	0.005	0.005	0.005
	(0.992)	(0.992)	(0.992)	(0.544)	(0.544)	(0.544)
mean	0.042	-0.009	-0.042	0.038	-0.004	-0.031
	(0.110)	(0.272)	(0.049)	(0.089)	(0.614)	(0.140)
max	0.082	-0.017	-0.081	0.069	-0.013	-0.065
	(0.133)	(0.323)	(0.041)	(0.134)	(0.471)	(0.104)
Panel b - IV						
min	-0.005	-0.005	-0.005	0.003	0.003	0.003
	(0.662)	(0.662)	(0.662)	(0.761)	(0.761)	(0.761)
mean	0.040	-0.018	-0.056	0.041	-0.008	-0.039
	(0.291)	(0.143)	(0.039)	(0.215)	(0.508)	(0.104)
max	0.083	-0.031	-0.104	0.078	-0.018	-0.080
	(0.277)	(0.174)	(0.036)	(0.252)	(0.435)	(0.075)

Notes: Conditional marginal effects of aid associated with table 7a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the overall economic freedom index. P-values are in parentheses.

TABLE 8a - African and non-African Nations, Reform (Δ Economic Freedom) and Aid

	OLS				IV			
	African		*non-African*		*African*		*non-African*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	0.024	0.032	0.026	-0.004	0.026	0.033	0.030	-0.047
	(0.182)	(0.181)	(0.100)	(0.904)	(0.144)	(0.132)	(0.153)	(0.308)
Aid·Groups		0.035		0.042		0.033		0.067
		(0.198)		(0.013)		(0.247)		(0.001)
Aid·Groups·EF		-0.009		-0.007		-0.008		-0.010
		(0.136)		(0.015)		(0.161)		(0.019)
Groups	0.216	0.360	0.346	0.396	0.231	0.358	0.347	0.368
	(0.544)	(0.367)	(0.160)	(0.142)	(0.532)	(0.439)	(0.205)	(0.245)
Groups·EF	-0.056	-0.077	-0.051	-0.063	-0.059	-0.078	-0.052	-0.062
	(0.421)	(0.310)	(0.185)	(0.119)	(0.381)	(0.305)	(0.231)	(0.182)
EF	-0.377	-0.128	-0.294	-0.193	-0.368	-0.139	-0.289	-0.175
	(0.006)	(0.581)	(0.015)	(0.120)	(0.043)	(0.558)	(0.035)	(0.257)
GDP	0.297	0.218	-0.036	-0.088	0.310	0.247	-0.025	-0.122
	(0.064)	(0.189)	(0.698)	(0.334)	(0.041)	(0.265)	(0.764)	(0.252)
Population	-0.118	-0.035	-0.087	-0.036	-0.126	-0.055	-0.092	-0.008
	(0.377)	(0.791)	(0.381)	(0.713)	(0.214)	(0.688)	(0.289)	(0.935)
Democracy	0.064	0.044	0.031	0.039	0.064	0.046	0.031	0.042
	(0.352)	(0.506)	(0.530)	(0.427)	(0.310)	(0.479)	(0.544)	(0.406)
Fractionalization	-0.266	-0.250	-0.150	-0.190	-0.269	-0.254	-0.139	-0.222
	(0.101)	(0.115)	(0.288)	(0.147)	(0.053)	(0.061)	(0.460)	(0.241)
SW - Aid					43.63	27.65	14.56	20.85
SW - Aid·Groups						15.00		14.53
SW - Aid·Groups·EF						17.51		6.90
Hansen J p-val					0.520	0.480	0.771	0.814
Observations	88	88	169	169	88	88	169	169

Notes: Dependent variable is the change in the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 8b - African and non-African Nations, Conditional Marginal Effects of Aid on Reform (Δ Economic Freedom)

	African			*Non-African*		
Groups(↓) EF(→)	min	mean	max	min	mean	max
Panel a - OLS						
min	0.040	0.025	0.010	-0.004	-0.004	-0.004
	(0.079)	(0.208)	(0.634)	(0.904)	(0.904)	(0.904)
mean	0.062	0.007	-0.049	0.086	-0.003	-0.052
	(0.073)	(0.720)	(0.301)	(0.000)	(0.919)	(0.256)
max	0.092	-0.020	-0.131	0.162	-0.002	-0.092
	(0.151)	(0.574)	(0.179)	(0.005)	(0.980)	(0.333)
Panel b - IV						
min	0.041	0.028	0.014	-0.047	-0.047	-0.047
	(0.065)	(0.191)	(0.562)	(0.308)	(0.308)	(0.308)
mean	0.062	0.012	-0.039	0.105	-0.015	-0.081
	(0.127)	(0.705)	(0.466)	(0.000)	(0.739)	(0.248)
max	0.092	-0.010	-0.112	0.233	0.012	-0.110
	(0.239)	(0.857)	(0.284)	(0.000)	(0.899)	(0.424)

Notes: Conditional marginal effects of aid associated with table 8a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the overall economic freedom index. P-values are in parentheses.

TABLE 9a - Aid ≥ 0.5, Reform (Δ Economic Freedom) and Aid

	OLS				IV			
	No fixed effects		*Fixed effects*		*No fixed effects*		*Fixed effects*	
	(1a)	(1b)	(1c)	(1d)	(2a)	(2b)	(2c)	(2d)
Aid	0.024	0.026	0.019	0.046	0.010	0.012	0.026	-0.002
	(0.118)	(0.278)	(0.161)	(0.048)	(0.631)	(0.575)	(0.110)	(0.909)
Aid·Groups		0.035		0.009		0.044		0.045
		(0.018)		(0.504)		(0.031)		(0.005)
Aid·Groups·EF		-0.008		-0.005		-0.011		-0.011
		(0.003)		(0.063)		(0.002)		(0.001)
Groups	0.036	0.054	0.513	0.809	0.001	0.075	0.525	0.421
	(0.888)	(0.854)	(0.033)	(0.003)	(0.997)	(0.867)	(0.077)	(0.057)
Groups·EF	-0.030	-0.028	-0.097	-0.134	-0.024	-0.027	-0.100	-0.073
	(0.490)	(0.541)	(0.014)	(0.002)	(0.660)	(0.689)	(0.044)	(0.028)
EF	-0.408	-0.293	-0.317	-0.121	-0.443	-0.284	-0.304	-0.162
	(0.000)	(0.018)	(0.008)	(0.367)	(0.002)	(0.101)	(0.032)	(0.160)
GDP	0.220	0.165	0.144	0.073	0.162	0.049	0.176	-0.140
	(0.014)	(0.019)	(0.162)	(0.446)	(0.241)	(0.689)	(0.112)	(0.117)
Population	-0.079	-0.035	-0.090	-0.031	-0.051	0.027	-0.109	0.059
	(0.240)	(0.514)	(0.287)	(0.696)	(0.547)	(0.713)	(0.142)	(0.422)
Democracy	0.187	0.185	0.114	0.115	0.184	0.177	0.114	0.102
	(0.000)	(0.000)	(0.003)	(0.002)	(0.000)	(0.000)	(0.002)	(0.003)
Fractionalization	-0.159	-0.149	-0.180	-0.199	-0.165	-0.162	-0.181	-0.185
	(0.197)	(0.259)	(0.159)	(0.134)	(0.192)	(0.202)	(0.156)	(0.120)
SW - Aid					10.74	17.72	6.74	187.54
SW - Aid·Groups						26.73		52.66
SW - Aid·Groups·EF						13.93		45.09
Hansen J p-val					0.162	0.272	0.189	0.385
Observations	184	184	184	184	184	184	184	184

Notes: Dependent variable is the change in the overall economic freedom index. Estimation is by OLS and IV, without and with time and region fixed effects, and with robust, clustered standard errors. P-values are in parentheses. For IV, the Sanderson-Windmeijer F of excluded instruments is reported (to test for instrument relevance), along with the Hansen J p-value (to test for instrument exogeneity). Excluded instruments are based on the second-order polynomial described in equation (5).

TABLE 9b - Aid ≥ 0.5, Conditional Marginal Effects of Aid on Reform (Δ Economic Freedom)

	No fixed effects			*Fixed effects*		
Groups($\downarrow$) EF($\rightarrow$)	min	mean	max	min	mean	max
Panel a - OLS						
min	0.026	0.026	0.026	0.046	0.046	0.046
	(0.278)	(0.278)	(0.278)	(0.048)	(0.048)	(0.048)
mean	0.080	0.004	-0.042	0.045	-0.003	-0.032
	(0.000)	(0.777)	(0.094)	(0.031)	(0.854)	(0.257)
max	0.132	-0.018	-0.108	0.044	-0.052	-0.109
	(0.005)	(0.584)	(0.046)	(0.288)	(0.149)	(0.067)
Panel b - IV						
min	0.012	0.012	0.012	-0.002	-0.002	-0.002
	(0.631)	(0.631)	(0.631)	(0.909)	(0.909)	(0.909)
mean	0.076	-0.027	-0.088	0.064	-0.037	-0.098
	(0.008)	(0.292)	(0.028)	(0.008)	(0.122)	(0.013)
max	0.138	-0.066	-0.188	0.130	-0.072	-0.193
	(0.033)	(0.195)	(0.014)	(0.010)	(0.142)	(0.014)

Notes: Conditional marginal effects of aid associated with table 9a specifcations 1b (OLS and no fixed effects), 1d (OLS and fixed effects), and 2b (IV and no fixed effects) and 2d (IV and fixed effects), for all combinations of the minimum, mean, and maximum values of groups and the overall economic freedom index. P-values are in parentheses.

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