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Kaishan Zhu April 7,2017

The Economic Effects of World Bank Development-oriented Lending

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Abstract

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An integral player in global development, the World Bank has intensely utilized its development-oriented lending programs in stimulating sustainable economic growth across the globe. By using data from 1991 to 2000, this paper examines the effectiveness of World Bank development-oriented lending in generating long-term economic growth. By incorporating political proximity to the United States and number of nationals served as executive directors as two instruments, this study manages to isolate the economic effect of World Bank lending. The result reveals that percentage increase in the amount of World Bank lending exerts positive effects on long-term GDP growth. However, the effectiveness of World Bank lending highly depends on the economic fundamentals of an economy. A political and institutional analysis of lending approval process at the World Bank also reveals that voting power, governing and policy reforms are needed for the World Bank to better fulfill its institutional goals.

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The Economic Effects of World Bank Development-oriented Lending

Founded originally in 1944, the World Bank was formed to help devastated European countries rebuild after World War II. Over the past 70 years, the World Bank Group has shifted focus from reconstruction to development. Instituted with the twin goals of eradicating extreme poverty and boosting shared prosperity, the World Bank, in essence, solely dedicates itself to stimulating sustainable economic growth in the world's less developed regions. With currently 189 members and $60 billion total commitments in 2015, the World Bank Group has evolved into the world's largest development institution.

As chaotic economic tumors phased out, loan programs with development focus, rather than stabilization or short-term adjustment, become the predominant programs at the Bank. Given the size and scope of the World Bank's efforts in stimulating growth, it is of imperative significance to know the consequences of these development-oriented lending. Do participating countries actually benefit economically from these World Bank loans? Or is this form of global governance not effective enough in improving the odds of the less developed countries?

One obstacle immediately emerges when we attempt to answer these questions: there exists a bi-directional causal relationship between World Bank lending and slacking economic performance. Economically poor countries, limited by their own ability in securing capitals, must opt for lending from the World Bank. Therefore, poor economic performance is usually correlated with great amount of World Bank lending. However, it would be unreasonably to blame the World Bank for these economic drawbacks simply by this correlation. In order to properly assess the economic effects of World Bank's lending, the direction of causation must be sorted out. Indeed, the causation can go in both directions. The lending can affect economic performance, but the current economic condition can affect the amount of lending obtained as

well. Ultimately, the goal of assessing the economic effects of World Bank lending cannot be achieved without isolating the effects of lending on loan from the bi-directional relationship.

The issue that economic performance and amount of World Bank lending can affect each other simultaneously is called endogeneity. To get around endogeneity, we need to gauge how loans at the World Bank is determined with no consideration of a country's economic performance. We seek to approximate this situation with the help of instruments.

Effective instruments should possess substantial predictive power of World Bank lending amount. And in the meanwhile, they stay exogenous to economic performance.

Enlighted by the growing bureaucratic and political studies on international institutions like the World Bank, we propose to use political and institutional measures of the World Bank as instruments in our study. Valid instruments would not only solve the endogeneity issue but also more realistically reflect how lending is determined at the Bank. With the help with instruments, we will be able to obtain lending amount that is exogeneous to economic performance. Then we will manage to assess the economic effect of World Bank lending.

Therefore, this study will be conducted in two stages. In the first stage, we establish a model describing how the amount of lending is determined at the World Bank when the effect of a country's economic performance is controlled for. This is achieved by incorporating our instruments in the model as explanatory variables. Therefore, a political-and-institutional analysis of the World Bank will be conducted. Upon the completion of this analysis, we uncover what are the political and institutional factors in World Bank's loan decision process. These political and institutional measures, then become our instruments. In the second stage, we assess the economic effects of World Bank lending by utilizing the exogeneous amount of lending derived from our model established in stage one.

With this two-stage analysis, we will be able to reveal, whether the development-oriented loans at the World Bank can exert positive economic effect on recipient country's GDP growth.

The paper is organized as following: we start by looking at previous literature. Section 2 presents the background information on the World Bank, which underpins the legitimacy of our instruments. Section 3 is dedicated to the first stagey analysis, where the methodology of the model, a political-institutional analysis and results of this stage is discussed in details. Section 4 presents the analysis of the second stage. Concluding remarks are offered in Section 5.

Literature Review

The World Bank is one of the international finance institutions (IFIs) that seek to promote economic prosperity by offering concessional financial solutions. Among them are the stabilization-focused International Monetary Funds (IMF) and other regional development banks.

The attempt to assess the economic consequence of lending from international finance institution dates back to late 1970s. In 1978, Reichmann and Stillson examined the economic consequences of 79 IMF funding programs by looking at the growth performances of their participating countries in 1963-1972. With the comparison between the growth performance at the two-year periods before and after the implementation of the program, they concluded that Fund-supported programs did not exert adverse effects on growth rates.

As we have pointed out in the introduction, endogeneity issue always exists when we try to assess the economic effects of lending or grants from IFIs. In the years following 1978, economists have tackled endogeneity by different approaches. There are four primary approaches among the literatures.

The before-after approach compares macroeconomic performance during a program to performance prior to the program. The study by Reichmann and Stillson (1978), which initialized this field of study, falls under this category. A year later, Connors (1979) employed nonparametric rank test on data of 31 IMF programs covering 23 countries during 1973-1977. The study, contrary to Reichmann and Stillson's found no discernable effects of IMF programs on growth. In about a decade later, Killick (1995), adherent to the before-after approach, offered a second look of IMF program on economic growth after the 1980s. A significantly positive relationship was discovered.

While the before-after approach is easy to employ and seemingly objective, it presents one distinct pitfall: the unbiasedness of this approach relies strictly on the assumption that all other non-program determinants being unchanged between the prior and program period.

The with-and-without approach overcomes the pitfall of the before-after approach. Assuming countries with and without lending programs are subject to the same nonprogram determinants in a given time, this approach extracts the interested effect by comparing before-after changes in program countries to those without programs.

The with-without approach was first adopted in two studies of Donovan (1981, 1982), which analyzed a sample of IMF programs implemented from 1970 to 1980. The control group of countries without programs consisted of all non-oil developing countries, the comparisons were carried out over one-year and three-year horizon. Regarding economic growth, the result was not clear cut. In the one-year comparisons there was a sharp improvement in growth for program countries relative to the control group, but in the three-year comparisons growth in program countries fell by more than it did in nonprogram countries.

In a more recent study, Faini, Melo, Semladi and Stanton (1991) put the adjustment lending of the World Bank into scrutiny. The with-without approach yielded a mild improvement of GDP growth, but suggested a relative worsening real investment ratio as an undesirable byproduct.

Another strand in the literature utilized the generalized evaluation approach. This approach modifies the with-without approach by adjusting for differences in initial conditions among the countries. Studies by Goldstein and Montiel (1986), Khan (1990) and Conway (1994) are all examples of the generalized evaluation approach. The results are either negative or muted in these studies.

The comparison of simulation approach, alternatively, relies on simulation of different economic models to infer the hypothetical performance of Fund programs. The predominant studies making use of this approach are the two studies by Khan and Knight (1981,1982) on IMF stabilization programs. They found economic performance contracted in the first year after the programs implemented and progressed gradually in the long run.

The strength of this approach is the flexibility it offers in drawing on a wide body of program experiences; those regimes not covered under current programs can be included as well.

These four primary approaches allow the assessment of IFIs lending on economic growth to be unfolded through different lenses. However, while each of these approaches isolates the economic effects through a specific dimension, none of them manage to incorporate these dimensions simultaneously. Moreover, these existing approaches fail to recognize that, the political and institutional characteristics of the lending institutional itself can influence the amount of lending as well.

The study by Przeworski and Vreeland (2000), captured the spontaneity of these intertwining factors by introducing the bivariant, dynamic version of the Heckman selection model. This model, essentially a vector regression model, seamlessly allowed for the interaction among the independent variables. Their results revealed that, growth was reduced when countries were pursuing the IMF programs and growth would not be restored afterwards.

In the meanwhile, a growing number of study has focused on the political and institutional forces at international development and governing organizations like IMF, the World Bank and the United Nations. These studies, pointed out that lending decisions are largely subjected to political and institutional influence.

A study by Alesina and Dollar (2000) found considerable evidence between the direction of foreign aid and political and strategic consideration. They stated that colonial past and political alliances are regarded as major determinants of foreign aid. In an investigation on whether elected members of the UN Security Council receive favorable treatment from the World Bank, Dreher, Sturn and Vreeland (2009) conducted a study on a panel data for 157 countries over the period 1970–2004. Their results indicated a robust positive relationship between temporary UN Security Council membership and the number of World Bank projects a country receives, even after accounting for economic and political factors, as well as regional, country and year effects.

Besides colonial and political factors, a study by Kaja and Werker (2010) unraveled the bureaucratic side of the World Bank. The empirical analysis showed that developing countries serving on the board can expect more than double the funding from the IBRD as countries not on the board.

The discovered links between political/institutional forces and lending decision spark the idea to use these political and institutional factors as instruments in getting around endogeneity and ultimately assessing lending's economic effect.

The study by Barro and Lee (2005) was the one that revolutionarily used political institutional measurement as instruments to assess the economic outcome of IMF lending. They adopted political proximity to the U.S. and major western European countries and numbers of nationals serving as IMF economists as instruments. By these instruments, the study managed to derive casual effect of both IMF program participation and amount of lending on countries' economic growth. They concluded that both IMF participation and IMF lending exert negative effects on countries' economic growth.

A brief review of the current literatures shows that, results are muted on how effective is lending from International Financial Institutions in stimulating economic growth. It also reveals the lack of study on lending from the World Bank. As economic crises were more frequent prior 1990s, stabilization lending, the primary lending issued by the IMF were much needed. Therefore, previous studies typically focused on IMF.

Therefore, our study is of considerable merit. By focusing on the World Bank, an institution more dedicates to development and by looking specifically at development-oriented lending, we fill in the gap of the current literature. As stabilization lending is less needed given the current global economic dynamics, the effectiveness of development-oriented lending becomes more important. Given the limits of previous approaches in tackling the endogenous issue, this study aims to richen the current studies by taking the innovative instrument approach.

The World Bank and Its Loan Programs

Founded in 1944, the World Bank, then only the institution call International Bank for Reconstruction and Development, has evolved into a closely associated group of five development institutions over the past seventy years. The World Bank Group now refers to the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), the International Centre for Settlement of Investment Disputes (ICSID). The World Bank (or the Bank) only refers to the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA).

The most historic institutions in the World Bank Group, the IBRD and the IDA epitomize the long-standing solution adopted by development institutions: official interaction and cooperation with a sovereign country or sub-region within a sovereign country through public venues. To this end, this paper exclusively concerns with the lending programs of the World Bank.

The International Bank for Reconstruction and Development, the founding institution of the Bank, provides loans and other assistance to middle income countries. IDA, founded later in 1960, complements IBRD's original lending arm by dedicating to the world's poorest countries. While IBRD's financial solutions are favorable to its borrowers, IDA lends on concessional terms. Performed as the single largest source of donor funds for the world's poorest countries, IDA provides credits with zero or low interest charged, coupled with repayment period stretching over 25 years.

Since its inception, membership of the World Bank has risen from 44 states in 1944 to 189 at present. While IBRD and IDA do have different consisting members, membership of IDA

is contingent upon membership of IBRD; and IBRD shareholding legally determines the structure of the Boards for both IBRD and IDA. Given that IDA operates in close parallel to IBRD and IBRD is the overarching institution, the following discussion will concern IBRD and IDA collectively as the World Bank.

Although the ultimate powers of the World Bank rest at the Board of Governors, where each member country is equally presented by its own governor, members of the World Bank do not wield equal power at the Bank.

Each member pays in capital for membership subscription, which directly determines voting power at the Bank. Each member is allocated 250 basic votes plus one additional vote for each share of the Bank's capital stock, that is priced at par of $100,000, in terms of 1944 US. Dollar.

The amount of subscription is calculated according to a formula that reflects a member country's economic weight by taking into account its GDP and international openness. There is no regular quota review while minor modification is in placed year to year to reflect IDA contribution, a factor in determining quota.

The World Bank Board of Governors delegates most decision-making powers and all operational duties to the Executive Boards, which has 24 executive directors. Five directors and their alternates are directly appointed by the five largest shareholders-the United States (approximate 17% of total subscription), Japan (6% to 8%), Germany (4% to 6.19%), France (4% to 6%) and United Kingdom (4% to 6%). The others are elected by 17 groupings of the remaining countries.

The World Bank has two basic types of lending instruments: investment loans and adjustment loans. Investment loans have a long-term focus (5-10 years), and finance goods,

works, and services in support of economic and social development projects in a broad range of sectors. Adjustment loans have a short-term focus (1-3 years), and provide quick-disbursing external financing to support policy and institutional reforms. During its initial stage, the Bank was positioned to uphold economic resilience of countries undergoing crises. As the global economy has entered into a more stable phase, the Bank has shifted focus to sustainable development. The transition in focus has also been reflected in its program profile.

Table 1 shows the number of all lending programs approved at the World Bank from 1970 to 2014. The Specific Investment Lending program is the predominant lending venue at the World Bank. More than half of the programs fall under this category. The amount and percentage of adjustment lending is in decline and no such lending programs was used after 2010.

In reality, investment and adjustment lending are used flexibly to suit a range of purpose and occasionally used together in hybrid operations at the Bank. Therefore, our study concerns the lending programs that are development-oriented regardless of which category they belong to. Development-oriented programs, in this study, are those that aim to stimulate sustainable economic growth as opposed to stabilization.

Table 2 provides the detailed breakdown of both the number and amount of lending programs considered by this study in our period of interest, from 1991 to 2000.

The figure again clearly reflects the development objective of the Bank. Among all the programs, the number and amount of Specific Investment Loan greatly exceed those of others. The Specific Investment Loan is the most flexible lending instrument for the creation, rehabilitation, and maintenance of economic, social, and institutional infrastructure.

First Stage Analysis

Methodology

In stage one, our optimal goal is to approximate the amount of development-oriented lending approved at the World Bank with influence from countries' economic performance controlled.

We model this by a multi-variant OLS model with the amount of development-oriented lending approved within a year as the dependent variable. The independent variables are a set of economic, institutional and political measures that influence the amount of lending approved. Our instruments, will enter as independent variables as well. By incorporating these instruments, we control the effects of countries' economic performance on amount of lending.

The model is specified as follow:

$$y_{it} = \alpha + \beta x_{instrument1it} + \gamma x_{instrument2it} + \delta Z_{it} + \varepsilon D_i + \mu_{it}$$

The dependent variable y_{it} is measured by summing up all the IBRD loans, IDA loans and grants approved for a particular country along with the average amount of funds a country is entitled to for relevant regional funding in a year.

$x_{instrument1it}$ and $x_{instrument2it}$ are political proximity to the United States and number of nationals as executive directors. They are included to get around the endogenous pitfalls as well as more realistically reflecting the World Bank dynamic.

The vector Z_{it} denotes a set of economic measurements including GDP, per capita GDP, reserve and per capita GDP growth. The variable GDP, per capita GDP and reserve seek to pick up the effects of the quota system; the per capita GDP growth variable reflects a country's economic robustness, which is the decisive force in demand of lending;

Lastly, the vector D_i is an array of regional dummy. The inclusion of regional dummies concerns the distinctness of each region in global and economic involvement.

Determinants of Lending Amount at the World Bank

Rationale for including each of the independent variables is discussed as following:

The direct link between quota and voting power along with direct appointment of executive directors has made the World Bank subject to political influence. The variable political proximity to the United States is created to capture such political influence in the process of lending approval. The power of the United States at the Bank is unparalleled; since the Bank's inception, the percentage of vote concentrated in the U.S. has never dropped under 16%. This concentration is even greater than that of the three subsequent subscribers combined. A reasonable claim is that the United States would wield its power at the Bank to suit to its national interest. Dreher et al. (2009) has proved such relationship existed at the World Bank with regard to the amount of programs a country gets. Political proximity to the United States is proxied by the fraction of identical votes on United Nations' General Assembly by a country and the United States over the number of issues that both countries are eligible to vote on. The voting at UN's annual General Assembly is an appropriate reflection of political stance as a wide range of global and regional issues including peace and security actions, economic sanctions, budgetary concerns and suspension or expulsion of members are presented. A country can vote Yes, No or Abstained on a given issue. A country will only vote on issues that are relevant to its own national or regional interest. Our hypothesis is that, greater political proximity to the United States raises the amount of lending approved at the World Bank.

The second instrument is the number of nationals served on the executive board in a given year. The setup of the Bank entails that the majority and actual power of the Bank rests in

the hands of the executive directors. Executive directors work on-site at the Bank to oversee the Bank's business, including approval of loans and guarantees, country assistance strategies, borrowing and financial decisions and other administrative tasks. Each appointed director is entitled to cast the number of votes allocated to the member appointing him. Each elected director is entitled to cast the number of votes which counted toward his election. In essence, voting of executive directors is decisive in lending approval at the World Bank.

Officially, there is no protocol that prohibits directors' voting on own country's lending proposals. Presence of nationals on the board, therefore, likely leads to favorable decision. In a subtler way, executive directors can provide first-hand information for their home countries to streamline project preparation work, which ultimately improves the odds of lending approval. In addition, lending negotiation is a vital part of lending approval and the presence of own nationals on the board can possibly entail more generous terms. The number of nationals served on the board is measured by adding up the number of executive directors, alternates of executive directors and any interim executive directors served on the board in a given year.

GDP, per capita GDP and reserve are three variables this study adopts to account for the dynamics between greater subscription capitals and amount of lending approved. As there is no hard-written constrain imposed on the amount of lending that a country can apply for, countries, as resource optimizers, tend to borrow more when they pay in more capitals as a way to make good use of available resources. Capital subscription to the World Bank is solely determined by the economic weight of the member in the global economy. The economic weight, is in term calculated by a formula that is closely paralleled to that of International Monetary Fund, concerning an economy's absolute size by GDP, soundness by per capita GDP and global

openness by reserve. According to our hypothesis, greater GDP, per capita GDP and reserve would all lead to larger amount of lending approved at the World Bank.

Per capita GDP growth indicates an economy's performance. Albeit all the other bureaucratic and political forces, the World Bank positions to channel needed resources for the less developed region. Weak economies have greater demand of lending from the World Bank. Consequently, it is reasonable to hypothesize a lower growth rate of per capita GDP raises amount of lending approved at the Bank.

Regional dummies are created to account for the uniqueness of each geographical region. Under the World Bank's unique division, the whole world is divided into East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, North America, South Asia and Sub-Saharan Africa. The dummy variable Asia defined in this study stands for the World Bank region Asia and Pacific and South Asia. The dummy variable Europe refers to the Europe and Central Asia region, concerning countries in Central Asia that share geographical proximity to Eastern Europe present similarities beyond geographical location. The dummy Africa is substituted in for the Sub-Saharan Africa region, representing the least developed regions on the African continent. The South America dummy stands for the Latin America and the Caribbean region, where colonialism is a major and common trait.

We have complied data from 1991 to 2000. Each variable is obtained on an annual basis. From years to years, some of the measurements are missing for a certain country. Hence, the data set is an unbalanced panel data set with a total of 946 observations.

The summary statistics for all variables used in this stage are in Table 3. On average, countries in our sample received 221 million US dollars development-oriented lending from the

World Bank. Regionally, the greatest proportion of lending programs is devoted to African countries (37%).

Results on the Determinants of World Bank Lending

We begin with a model where endogeneity exists and includes no institutional or political instruments. Consider the result in Column 1 of Table 4. Column 2 refers to a model incorporating the two instrumental variables: political proximity, and number of nationals on the executive board. Column 3 further modifies the specifications by adding in regional dummies. Square term of GDP enters in model 4 to account for potential non-linear effects of GDP.

The estimated coefficients on the growth rate of per capita GDP, control for economic performance of a country, are insignificant across all specifications. The signs of the estimated coefficients are positive for the models without regional dummies. This is likely due to the pitfall of omitted variables. Without variables taking up the effects in regional distinctness, the positive coefficients on per capita GDP growth are biased. As revealed in specification 3 and 4, the coefficients on regional dummies are all positive. The OLS regression of per capita GDP growth on regional dummies yields that, except for Africa, regional dummies are positively correlated with per capita GDP growth. These two positive relationships, lead to overestimated coefficients of per capita GDP growth in specification 1 and 2.

As regional effects are controlled for in specification 3 and 4, the signs of the coefficients on per capita GDP growth become negative. The negative signs imply that countries with poor economic performance indeed tend to receive more lending from the World Bank, holding fixed all other factors.

The estimated coefficients on reserve, per capita GDP and GDP reveal the relationship between the amount of quota and the amount of lending approved at the World Bank. The

estimated coefficients on all these three variables are positive. The estimated coefficients on reserve and GDP are both individually significant at 5% level across all four specifications. Based on the specifications in column 4, under a certain economic condition, an increase in annual reserve by one million would rise the amount of lending approved at the Bank by $10,000. The estimated coefficient on GDP, implies that one million increase in national GDP, would lead to $3000 increase in approved lending. The estimated coefficients on reserve, per capita GDP and GDP are positive and jointly significant at the 1% level (*p*-value of F test is 0.0000). Altogether, they describe the positive relationship between subscribed capital and the amount of lending approved. Each country, as a rational resource optimizer, seeks to take out greater amount of lending when it pays more to the Bank.

Nevertheless, the amount of lending approved, viewed as the amount of resource a country seeks from the World Bank, does not increase monotonically. GDP also enters the model in quadratic form under specification 4. The estimated coefficient on the square term of GDP is negative and statistically significant. The jointly significant estimated coefficients on GDP and GDP squared (*p*-value of F test is 0.0000 or less) reveals the nonlinear relationship between size of subscribed capital and the amount of lending sought out by countries. The amount of approved lending increases with GDP initially but declines after a turning point.

According to our model, the switch occurs at the annual GDP level of 590000 million US Dollars. Below the turning point, countries are maximizing their paid in capital by securing more loans. Above the turning point, countries by themselves are competent enough in stimulating growth and thus demand for lending from the Bank declines. The sample median of annual GDP is at 847.6 million US Dollars, which lies below the switching point. Only 5 of our 918 observations have annual GDP level above the switching point. They are Brazil in 1995 and

1998, China in 1996, China in 2000 and Mexico in 2000. For the majority of participating countries in our research period, there is no diminishing effect on their paid in capital. They are optimizing their international resources in proportional to the size of their subscription at the Bank.

The estimated coefficients on the first instrumental variable, political proximity to the United States, are significantly negative in all the relevant specifications. According to specification 4, holding all other factors fixed, an increase of 1% political proximity to the U.S. would lead to 618 million drop in amount of lending approved at the Bank. Contrary to the hypothesis, political closeness to the biggest shareholder does not yield advantages in the loan securing process. But the significance of the estimated coefficient, aligns with the claim that lending decisions are subject to political influence at the World Bank.

The estimated coefficients on the number of nationals serving as directors in a given year, are significantly positive across all relevant specifications. As implied by specification 4, a presence of one national as executive director would raise the amount of lending approved by around 169 million, under a given economic condition. This confirms with our hypothesis that, presence at the executive directors leads to advantageous position during the loan securing process.

The estimated coefficients on the set of dummy variable are positive and jointly significant (*p*-value of F test is 0.0000 or less). The estimated coefficient on Asia and Europe, are individually significant, but those of the rest are not. Based on specification 4, under certain economic condition, membership in Asia would raise amount of lending approved at the World Bank by $254 million. For membership in Europe, the amount of lending approved at the World Bank would increase by $97 million, holding fixed all other factors. Based on the numeric value

of the estimated coefficients, membership in Asia yields the most benefits in the lending approval process, which is followed by that of Europe, and South American. To our dismay, membership in Africa, where poorest countries are most concentrated, is weakest in securing greater amount of lending from the Bank.

Coupled with the negative effects of political proximity to the U.S., the results on this array of regional dummies reveals the polar-dynamics at the Bank. Although the United States possess predominant power in terms of voting, Europe and Asia are notably influential at the Bank through their high presences at the executive board. Among the group of appointed directors, 3/5 are European nationals of Germany, France and the United Kingdom. Although by each country, Asian countries do not assume substantial voting power, Asian officials are frequently presented at the executive board given their competence. A regional breakdown of executive board members from 1991 to 2000 is provided in Table 5.

Throughout the 10-year period of our study, European officers took up around 30% of the seats at the executive boards. Among them are usually officers from developed European countries like Germany, Finland, France, Belgium and Iceland, which do not obtain loans from the Bank themselves. Asian officers took up another 30% of the seats. Officers from Africa, were most underrepresented. In most occasions, less than 10% of directors were African. The other region, which includes only Russian, Iran, Saudi Arab, Egypt and Kuwit had representation nearly the same as that of the Africa.

Specifications 1 through 4 are regarded as contemporary models as the dependent variable is conditioned on information from the same year (independent variables carry the same time subscript as that of the dependent variable).

Column 5 and 6 present the investigations on whether information from previous year and two years before has explanatory power on amount of lending approved. As regional dummies are fixed across time and each executive board is distinct in its constitutions and daily operation, these two variables are held at the same year as that of the dependent variables.

In specification 5, the estimated coefficients on time-varying variables are all insignificant at lag two. They are neither jointly significant at 10% level (*p*-value of F test is 0.2443).

This overall reveals the spontaneity of World Bank lending decision. Whereas previous information of a member country is readily available, the Bank makes decision conditioned on the most recent or concurrent circumstance of a country. This reflects the long-term span and forward-looking natures of lending programs at the Bank. As most of the World Bank program covers funding for a 5-to-10 years span in the future, the Bank finds more suitable to assess program with the emerging information rather than draw too much assessment on earlier information.

Column 6 provides the estimated coefficients of the model with time varying variables at their first lagged. The value and significance of the estimated coefficients are relatively similar to those from the paralleled contemporary model (specification 4). The only diversion is the sign of the estimated coefficient on per capita GDP. Considered the first lagged model is less robust in explaining the variations, indicated by a lower R square, the model from column 4 is finalized as our first stage model.

Based on this first stage model, predicted value on the amount of approved World Bank lending, which is exogenous to economic growth, is obtained for each sample point. The second stage of this study builds upon this whole array of predicted value.

Second Stage Analysis

Methodology

The second stage of this study concerns the question of interest, whether development-oriented lending from the World Bank, is effective in generating economic growth as they promise.

We model this by a multi-variants OLS model with country fixed effects. The dependent variable is the 5-year growth rate of GDP ahead of each of the time period in our sample (the dependent variables for sample points in 1991 are 5-year GDP growth rate over 1991-1996).

The independent variables include the predicted amount of development-oriented lending from our stage one analysis along with a set of growth determinants

The model is specified as follow:

$$y_{it+5} = \alpha + \beta\hat{x_i} + \gamma Z_{it} + \delta * time + \varepsilon_i + \mu_{it}$$

$\hat{x_i}$ refers to the predicted amount of development-oriented lending, which is exogenous to economic growth.

The vector Z_{it} encompasses a common set of growth determinants concerning three aspects of an economy: first, human capital, measured by educational level, fertility rate and life expectancy; second, the economic stage of the economy at the start of the 5-year period, captured by per capita GDP; third, the structural characteristics of an economy: which is described by the ratio of government consumption over GDP, the gross capital formation and trade openness.

ε_i picks up the country fixed effects, which are the fundamental characteristics of an economy that no tangible measurements can describe.

The variable *time*, is simply the year of the programs. This variable picks up general trend in economic growth across the globe.

Summary statistics of variables used in second stage analysis regression are provided in Table 6.

Results on Economic Growth

Column 1 and Column 2 of Table 7 present results when the amount of lending approved entered as absolute amount in million dollars. Specifications in Column 1 refers to no control of endogeneity and Column 2 refers to endogeneity being controlled. The estimated coefficients on year and trade openness are significantly positive. The estimated coefficient of gross capital formation is significant and negative in the endogenous model, whereas it becomes insignificant in specification 2.

Our primary interest is on the estimated coefficient of the amount of lending approved. Although in both models, the estimated coefficients on amount of lending are insignificant, the sign on the coefficient does switch from positive to negative when endogeneity is accounted for. The insignificance reveals that, there is no discernable effects of World Bank lending on a country's long-run economic growth.

The occurrence of the switch in sign, can be ascribed to the endogeneity of the World Bank lending. Lower economic growth implies greater demand for World Bank lending within the contemporaneous 5-year period, which in terms, overestimates the effect of lending on GDP growth.

Table 8 provides summary statistics of the original amount of lending and the predicted amount of lending. Indeed, when the inverse relationship between weaker economic performance and greater lending demand is controlled, the amount of lending shrinks down. The mean of the distribution decreases and more left-skewed values (small value) are obtained. Histograms of the actual amount of lending and the predicted amount of lending are provided in Graph 1.

Column 3 and 4 of Table 7 correspond to the specifications when the amount of lending approved enters the model in log form. Again, Column 3 does not control for endogeneity whereas Column 4 correct for endogeneity.

The estimated coefficients on trade openness stay significantly positive. Similarly, the estimated coefficients on gross capital formation, remain significantly negative. Compared to the previous two model, the estimated coefficients on log of amount of lending approved are positive across specifications 3 and 4. Nevertheless, the estimated coefficient on the log level of lending amount, is insignificant under model 3 but significantly positive when endogeneity is accounted for.

The change in significance, is again caused by the inherent endogenous relationship between the amount of lending and economic performance. Analogous to the change occurred at the absolute value level, log value of the predicted amount of lending approved is scaled down when endogeneity is taken away. The significance on the estimated coefficient implies that, when the threshold in overcoming the adverse fundamentals in weak economies is passed, level increment of the amount of World Bank lending, invokes positive economic growth.

According to the specification in column 4, 1% increase in the amount of lending approved, would lead to 0.13% rise in 5-year GDP growth, holding fixed all other factors.

To briefly summarize, when endogeneity is accounted for, the absolute amount of lending from the World Bank does not exert discernable effect on country's economic growth in the upcoming 5 years. However, the percentage increase in amount of lending, does lead to positive economic growth.

Economically speaking, our results in the second stage reveal the conditionality of development-oriented investment of the World Bank. Firstly, increment in development funding

is measured against the current level of funding. If the increase in lending does not invoke level change with regard to the current level, no significant positive impact can be induced. Secondly, the positive effects of development-lending, are contingent upon the economic and institutional fundamentals of the recipient countries. If the fundamentals underlying a recipient country are not effective enough in channeling growth, the lending from the World Bank is powerless in stimulating any growth. It merely reflects the greater demand of lending from these countries.

Amount of World Bank Lending on Other Growth Determinants

Besides the primary point of interest, the relationships between government consumption and investment, and the amount of lending worth extra discussion.

Results on previous literature, found positive relationship between government consumption and World Bank lending. Negative relationship is found with regard to investment.

The provision of World Bank lending, which channels exclusively through public engagements, automatically increases government spending.

Studies by Fanini el at. (1991) and Killick (1995) explained the negative relationship between investment and World Bank lending. Killick (1995) posited that the deterioration of the investment ratio reasonably reflected the negative signaling effects of development lending. The intense participation in IMF and World Bank programs, from the perspective of private investors, signaled heavy reliance on multilateral lending and thus weakness of the economy itself. An alternative explanation, according to Fanini et al. (1991) is that the decreased ratio reflects the considerate cut back in overly ambitious public investments.

But in our analysis, these two relationships are flipped. The simple OLS regression of gross capital formation (measurement for investment) on the predicated approved lending value, reveals a significantly positive relationship between lending from the World Bank and national

investments. The inflow of World Bank lending, on the other hand, depresses government consumption. The simple OLS regression of government consumption over GDP yields a significantly negative estimated coefficient. Regression results included in Appendix II.

The underlying reasons rests on the focuses and the implementation approach of development-oriented lending at the World Bank. With the well-defined focus on development, the provision of World Bank lending, as its objective entails, boosts the overall investment in a country. Nevertheless, the inflow from the World Bank, is treated by the country as substitute but not complement in national contribution to the country's economy. As more lending is obtained, sovereign government restrains from allocating more resources in economic development. The inertia of local sovereign, is linked to a pitfall of lending programs from international financial institutions: the approval of lending programs is contingent on a set of policy reforms, which are called conditionality. A study by Bird and Rowlands (1997) stated that, conditionality effectively coerces government into pursuing policies which they would otherwise have rejected. Consequently, governments feel lack of ownership in stimulating growth when World Bank lending is abounded.

The increase of investment relates to how these development programs unfold. Implementation of these development programs relies completely on contracted local organizations rather than the Bank itself. This localized approach paves a more direct route in carrying out investments.

Conclusion

By a two-stage analysis, our study analyzes whether development-focused lending programs at the World Bank exert positive impact on countries' long-term economic growth.

By recognizing the political and institutional forces in the lending decision process at the Bank in the first stage, we are able to construct a model that more realistically reflects how amount of development-oriented lending is determined at the Bank. This first stage model also serves to derive the amount of lending that is exogenous to economic growth, which successfully tackles the endogenous issue in answering our research question.

By taking into account factors of economic performance, political influence, institutional dynamics, the quota system and regional distinctiveness, our first stage model reveals the following: ceteris paribus, the size of approved development-oriented lending at the World Bank increases when a country possess more reserve, pay in more subscriptions, being more political alienated from the United States (proxied by identical vote at the U.N. General Assembly) and having more nationals served on the executive board.

Besides explaining variations in amount of lending, the analysis in first stage demonstrates the existence of political and institutional forces within the Bank. While serving the world's poorest population is set as an institutional objective, the World Bank to some extent, is suited to the interests of major shareholders and limited by its governing structure.

To this end, reforms are much needed at the Bank for it to more sufficiently fulfill its goals. The quota system should be updated to increase the representation and power of less developed countries. Overhaul of the executive board should be conducted so that more countries can participate in the decision process and potentially lower the concentration of European officials. Moreover, the World Bank should strive to isolate itself from political influence by undergoing policy and institutional reform.

In the second stage, by controlling for other determining factors in growth, we find that development-oriented lending from the World Bank invoke positive economic effects in the

percentage term. The absolute amount of development-oriented lending from the Bank, however, does not pose discernable effect on economic growth.

Our analysis also finds that, unlike findings from previous literature, development-oriented lending has considerable power in channeling investments. However, it does depress government's own contribution in economic growth. The effectiveness of development-oriented lending, depends on the inherent fundamentals of the receiving countries. Although on the aggregated level, development-oriented lending exerts positive economic effects, extremely poor economies are still trapped by its own weakness and fail to realize the positive force brought forth by the World Bank lending.

In the future, when the Bank is allocating its resource, more deliberation should be put on the concurrent stage of the economy. With regard to size, the Bank should consider whether the amount of lending approved is sufficient enough to invoke a level change compared to its current level. Besides purely monetary support, the Bank should strengthen its advisory role in supporting countries in institutional reforms. It is only when the needed institutional reforms are in place, the benefits of development-oriented funding can be realized.

We end with limitations of this study and future research directions. On the technical end, while we try to eliminate endogeneity in our study, we might invoke other source of endogeneity by incorporating GDP, per capita GDP and reserve in our first stage. The log transformation adopted in stage two, produces negative sample points. As amount of lending should always be non-negative, we should have restricted our analysis to only positive sample points. The robustness of this analysis is limited by the small sample size as well. Since lots of growth determinants are missing for some countries, the sample size in stage two declined to only around 300.

On the content end, we only concern the economic effects of amount of lending from the World Bank but completely ignore the effects from number of lending programs. Previous literatures have revealed that, both the amount and the number of lending can influence economic growth. we gauge the effects of World Bank lending by the amount approved in a year but not the amount spent in a year. While programs usually cover for a long time, using the actual disbursed amount as the measurement might be more appropriate. Most of the estimated coefficients in our growth model are insignificant, which implies there are omitted factors that our model fails to incorporate. Our results are also subjected to time constrains. As voting powers and governing structure are paramount determinants in amount of lending a country can obtain, the well-needed voting reform of World Bank was initialized in 2010. It will be extremely meaningful for future study to see how the size of lending will be affected by the voting reforms, which presumably enhance the representation of less-developed countries. Moreover, as development-oriented lending are in even greater force in the 21 centuries, more insights can be gained from conducting a study that looks at programs in more recent time.

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Table 1 Approval of World Bank Loan Programs,1970-2014 (cells show number of programs approved and percentage over total programs in the designated period show in next line)

Period	Investment Lending							Adjustment and Other Nonproject Lending						Total
	SIL	SIML	APL	LIL	TAL	FIL	ERL	RL	DRL	SAL	SeAL	PSAL	SSAL	
1970-74	348	125	/	/	20	87	10	/	/	17	/	/	/	607
	57%	21%			3%	14%	2%			3%				
1975-79	640	223	/	/	52	189	14	/	/	18	4	/	/	1140
	56%	20%			5%	17%	1%			2%	<1%			
1980-84	602	250	/	/	130	171	8	/	/	39	22	/	/	1222
	49%	20%			11%	14%	<1%			3%	2%			
1985-89	646	178	/	/	90	111	19	/	1	64	102	/	/	1211
	53%	15%			7%	9%	2%		<1%	5%	8%			
1990-94	784	127	/	1	102	43	24	11	7	115	101	/	/	1315
	60%	10%		<1%	8%	3%	2%	<1%	<1%	9%	8%			
1995-99	919	62	54	52	140	21	42	9	4	120	88	1	/	1512
	61%	4%	4%	3%	9%	1%	3%	<1%	<1%	8%	6%	<1%		
2000-04	815	24	164	75	274	14	90	2	/	122	24	42	2	1648
	49%	1%	10%	5%	17%	<1%	5%	<1%		7%	1%	3%	<1%	
2005-09	1183	32	195	19	397	27	251	/	1	5	2	6	/	2118
	56%	2%	9%	<1%	19%	1%	12%		<1%	<1%	<1%	<1%		
2010-14	1095	18	97	9	430	28	125	/	/	/	/	/	/	1802
	61%	<1%	5%	<1%	24%	2%	7%							

Notes: Detailed description of each loan program is provided in Appendix I. Percentage might not add up to 100% due to rounding.

Table 2 Approval of Development-oriented Programs, 1991-2000 (cells show number of programs and amounts approved (in parentheses) in millions of US Dollars)

Programs	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
Adaptable Program	/	/	/	/	/	/	/	22 (996.3)	32 (1103.8)	31 (1370.5)	85 (3470)
Debt and debt service reduction	1 (65)	/	1 (450)	3 (375)	/	1 (30)	2 (233)	1 (35)	/	/	9 (1188)
Financial Intermediary	11 (1196.1)	6 (550.5)	9 (1029.8)	8 (1502)	5 (835)	6 (327)	5 (164.5)	/	5 (639.5)	3 (35.1)	58 (6280)
Learning and Innovation	/	1 (0.4)	/	/	/	/	1 (4.7)	25 (779.1)	26 (115.2)	27 (111.3)	179 (342)
Sector Investment and Maintenance	27 (2458.1)	28 (2394.6)	18 (1840.4)	12 (1537)	22 (1860.7)	13 (1317.1)	13 (907.4)	11 (779.1)	3 (90.2)	4 (535.1)	269 (13720)
Specific Investment	142 (12919.5)	155 (12406.3)	166 (12671.3)	198 (16416)	183 (13619.6)	210 (14601)	186 (12385.9)	177 (14178.3)	160 (8569.9)	146 (7940.7)	1723 (125708)
Structural Adjustment	26 (3054.9)	24 (2315.4)	9 (1755)	33 (1468.1)	11 (1380.1)	26 (1772.9)	34 (6633.3)	23 (12074.2)	26 (3762.4)	34 (3041.6)	246 (37258)
Technical Assistance	19 (486.7)	32 (676.6)	21 (332.1)	19 (357)	29 (727.2)	29 (465.2)	25 (400.9)	19 (310.2)	38 (396.1)	32 (359.6)	263 (4512)
Grand total	226 (20180.3)	246 (18343.8)	224 (18078.7)	273 (21655)	250 (18422.6)	285 (18513.1)	266 (20729.6)	278 (28483.9)	291 (14677.2)	277 (13393.9)	2616 (192367)

Table 3 Summary Statistics for Variables Used in Stage One Regressions

Variable	Mean	Median	α
Amount of World Bank lending approved* (in million US dollars)	221.447	70	461.447
GDP (in million US dollars)	20910.99	847.599	87269.08
GDP squared	8.04e^9	718451	6.97e^10
Reserve (in million US dollars)	3636.069	320.639	12731.06
Per capita GDP (in US dollar)	1243.856	469.520	1750.89
Per capita GDP growth (in %)	1.889	2.140	7.824
Political proximity to the United States	0.226	0.213	0.089
Number of directors	0.228	0	0.517
Asia	0.159	0	0.365
Europe	0.190	0	0.393
Africa	0.378	0	0.485
South America	0.193	0	0.395

Table 4 Determinants of Amount of World Bank Development-oriented Lending (cells show estimated coefficients with standard errors in parentheses)

	(1)	(2)	(3)	(4)
GDP	0.002***	0.001**	0.001**	0.003***
	(0.001)	(0.001)	(0.001)	(0.001)
GDP squared				-0.000***
				(0.000)
Reserve	0.014***	0.011***	0.010***	0.010***
	(0.003)	(0.003)	(0.003)	(0.002)
Per capita GDP	0.010	0.016	0.021	0.015
	(0.018)	(0.017)	(0.019)	(0.028)
Per capita GDP growth	0.251	0.851	-1.818	-1.583
	(3.075)	(3.119)	(3.033)	(2.918)
Political proximity to the U.S.		-647.928***	-624.319***	-618.229***
		(140.919)	(203.765)	(202.296)
Number of directors		215.305***	186.335***	168.969***
		(61.191)	(59.074)	(57.454)
Asia			277.635***	254.296***
			(59.568)	(55.506)
Europe			104.125**	97.111**
			(43.652)	(44.422)
Africa			38.090	50.918
			(32.260)	(32.822)
South America			54.885	51.295
			(39.676)	(38.520)
Constant	118.012***	225.943***	138.672**	123.667**
	(19.672)	(37.951)	(60.764)	(60.744)
Number of Observations	804	778	778	778
R-squared	0.371	0.422	0.455	0.488

Robust standard errors in parentheses ; ***p<0.01,**p<0.05,*p<0.1

Table 4 (continued) Determinants of Amount of World Bank Development-oriented Lending (cells show estimated coefficients with standard errors in parentheses)

	(5)	(6)
GDP	0.002***	
	(0.001)	
L1.GDP	0.000	0.001
	(0.001)	(0.001)
L2.GDP	0.001	
	(0.001)	
GDP squared	-0.000	
	(0.000)	
L1.GDP squared	0.000	
	(0.000)	
L2.GDP squared	-0.000	
	(0.000)	
Reserve	0.005	
	(0.004)	
L1.Reserve	0.004	0.009***
	(0.007)	(0.003)
L2.Reserve	-0.003	
	(0.008)	
Per capita GDP	0.001	
	(0.018)	
L1.Per capita GDP	0.027	0.047
	(0.028)	(0.033)
L2. Per capita GDP	-0.011	
	(0.031)	
Per capita GDP growth	-2.675	
	(4.709)	
L1. Per capita GDP growth	7.301*	4.846
	(4.168)	(3.301)
L2. Per capita GDP growth	4.256	
	(2.995)	
Political proximity to the U.S.	-5.565.838**	-907.758***
	(294.241)	(250.052)
L1. Political proximity to the U.S.	-437.794	
	(287.123)	
L2. Political proximity to the U.S.	-365.562	
	(357.554)	
Number of directors	211.917***	232.939***
	(71.713)	(61.286)
Asia	200.853***	288.347***
	(65.203)	(71.644)
Europe	172.383***	138.538***
	(53.678)	(51.530)
Africa	45.290	73.318*
	(47.971)	(43.181)
South America	88.132*	73.664
	(52.266)	(51.393)
Constant	274.813***	141.790***
	(86.670)	(72.866)
Number of Observations	460	593
R-squared	0.538	0.458

Robust standard errors in parentheses ; ***p<0.01,**p<0.05,*p<0.1

Table 5 Regional Breakdown of Elected Executive Directors' Nationality, 1991-2000 (cells shows number of directors, percentage in parentheses)

Year	Europe	Asia Pacific	North America	South and Central America	Africa	Others	Total
1991	13 (30%)	13 (30%)	1 (2%)	7 (16%)	6 (14%)	4 (9%)	44
1992	11 (28%)	12 (30%)	2 (5%)	6 (15%)	6 (6%)	3 (8%)	40
1993	12 (27%)	10 (22%)	2 (4%)	6 (13%)	5 (11%)	10 (22%)	45
1994	15 (30%)	11 (22%)	3 (6%)	7 (14%)	5 (10%)	9 (18%)	50
1995	14 (28%)	13 (26%)	1 (2%)	8 (16%)	6 (12%)	8 (16%)	50
1996	14 (26%)	10 (19%)	1 (2%)	6 (11%)	5 (9%)	8 (15%)	53
1997	13 (28%)	14 (30%)	1 (2%)	6 (13%)	5 (11%)	7 (15%)	46
1998	17 (33%)	13 (25%)	1 (2%)	7 (13%)	5 (10%)	9 (17%)	52
1999	12 (27%)	14 (32%)	1 (2%)	5 (11%)	6 (14%)	6 (16%)	44
2000	13 (27%)	14 (29%)	2 (4%)	6 (13%)	5 (10%)	8 (17%)	48
Total	134 (29%)	124 (27%)	15 (3%)	64 (14%)	54 (12%)	72 (16%)	

Note: Elected directors, alternate executive directors, interim and succeeded directors all included. Percentage might not sum to 100% due to rounding.

Table 6 Summary Statistics for Variables Used in Stage Two Regressions

Variable	Mean	Median	α
5-year GDP growth	0.385	0.299	0.574
Predicted amount of development-oriented lending	219.646	106.707	321.709
Log (Predicted amount of development-oriented lending)	4.839	4.717	1.151
Life expectancy at birth (in years)	61.736	65.261	10.071
Educational level (gender parity for enrollment ratio in tertiary schools)	0.810	0.831	0.461
Fertility rate (births per woman)	4.079	3.962	1.869
Trade openness (sum of import and export divided by GDP)	69.222	60.829	35.144
Inflation	55.588	9.459	294.755
Government consumption/GDP	14.710	13.403	7.429
Gross capital formation	22.190	20.924	12.965

Note: There are only 415 observations for education level. Gross capital formation consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories.

Table 7 Determinants of 5-year GDP Growth (cells show estimated coefficients with standard errors in parentheses)

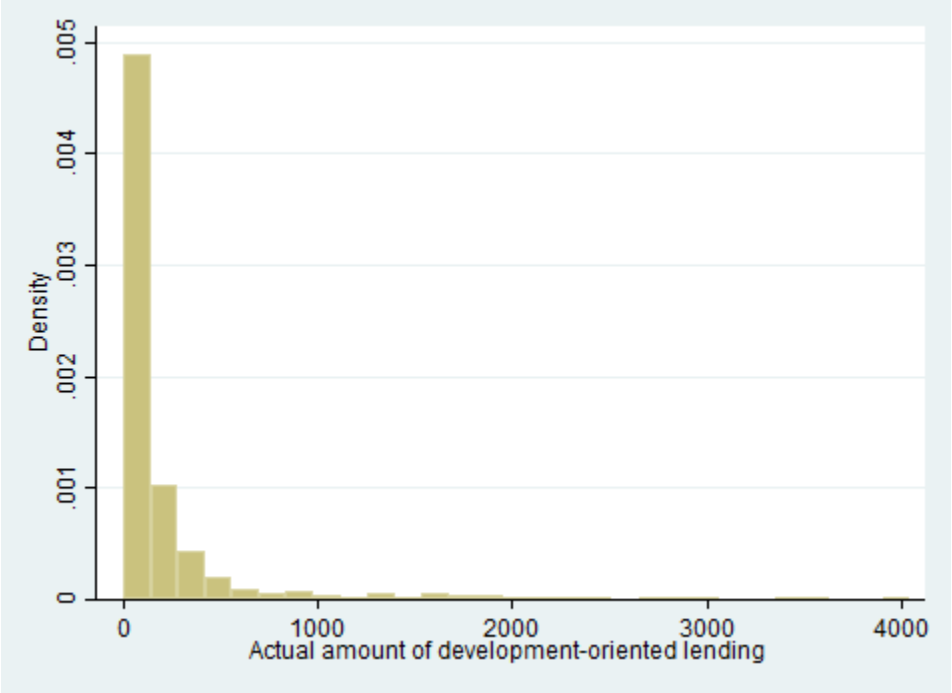
	(1)	(2)	(3)	(4)
Amount of development-oriented lending	0.000			
	(0.000)			
Log (amount of development-oriented lending)			0.037	
			(0.024)	
Predicted amount of development-oriented lending		-0.000		
		(0.000)		
Log (Predicted amount of development-oriented lending)				0.130***
				(0.040)
Life expectancy	0.008	-0.002	0.010	-0.000
	(0.017)	(0.015)	(0.017)	(0.015)
Educational level	0.088	0.058	0.076	-0.005
	(0.191)	(0.187)	(0.190)	(0.204)
Fertility rate	0.245**	0.184*	0.260**	0.170
	(0.119)	(0.110)	(0.118)	(0.114)
Trade openness	0.008***	0.007**	0.009***	0.008***
	(0.002)	(0.002)	(0.002)	(0.002)
Inflation	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Government consumption / GDP	0.004	0.002	0.003	0.003
	(0.010)	(0.010)	(0.010)	(0.010)
Gross capital formation	-0.012**	-0.010	-0.012**	-0.015**
	(0.006)	(0.006)	(0.006)	(0.006)
Year	0.052***	0.053***	0.055***	0.040***
	(0.010)	(0.011)	(0.011)	(0.012)
Per capita GDP	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-105.672***	-105.507***	-111.930***	-81.843***
	(21.874)	(22.559)	(22.128)	(23.373)
Number of Observations	340	327	340	297
R-squared	0.461	0.448	0.466	0.495

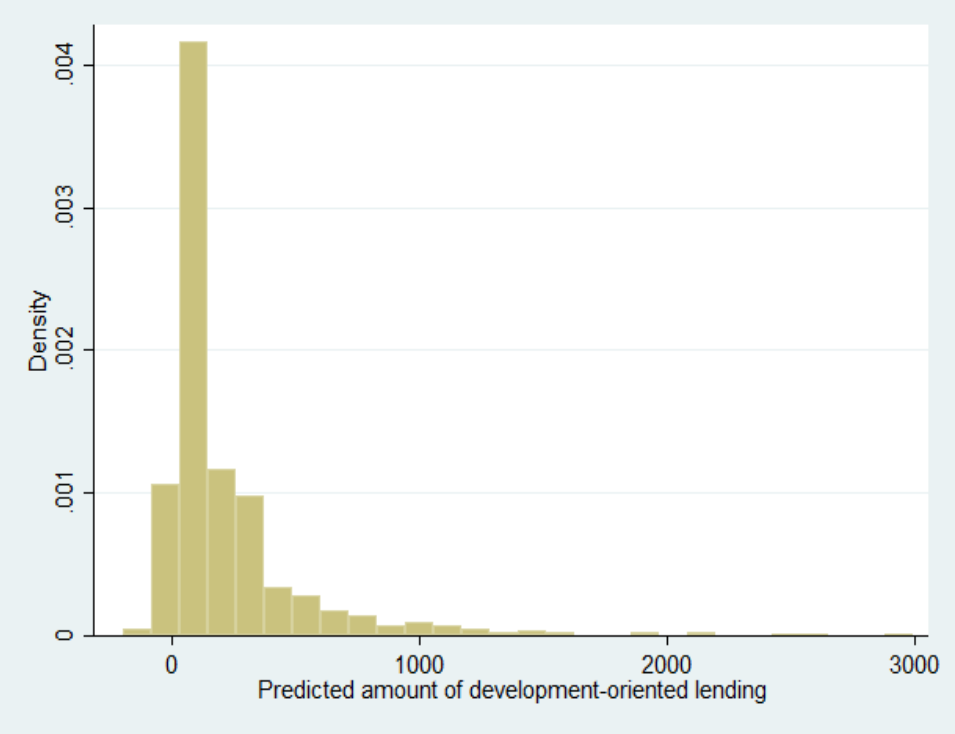
Standard errors in parentheses ; ***p<0.01,**p<0.05,*p<0.1

Table 8 Comparison Between Actual and Predicated Amount of Lending

Variable	Mean	Min	Max
Amount of development-oriented lending	221.447	0.1	4048.24
Predicated amount of development-oriented lending	219.646	-199.511	2992.635

Figure 1 Histogram of Actual and Predicted Amount of Lending





Appendix I Detail description of lending programs included in this study

Program	Description
Adaptable Program	APLs provide phased support for long-term development programs. They involve a series of loans that build on the lessons learned from the previous loan(s) in the series.
Debt and debt service reduction	DRL helps eligible highly indebted countries reduce commercial debt and debt service to a manageable level, as part of a medium-term financing plan in support of sustainable growth.
Financial Intermediary	FIL provides long-term resources to local financial institutions to finance real sector investment needs.
Learning and Innovation	LIL supports small pilot-type investment and capacity-building projects that, if successful, could lead to larger projects that would mainstream the learning and results of the LIL.
Sector Investment and Maintenance	SIMs focus on public expenditure programs in particular sectors. They aim to bring sector expenditures, policies, and performance in line with a country's development priorities by helping to create an appropriate balance among new capital investment, rehabilitation, reconstruction, and maintenance. They also help the borrower develop the institutional capacity to plan, implement, and monitor the expenditure or investment program.
Specific Investment	The SIL is a flexible lending instrument appropriate for a broad range of projects. SILs help to ensure the technical, financial, economic, environmental, and institutional viability of a specific investment. They also support the reform of policies that affect the productivity of the investment.
Structural Adjustment	SAL supports reforms that promote growth, efficient use of resources, and sustainable balance of payments over the medium and long term.
Technical Assistance	TAL is used to build institutional capacity in the borrower country. It may focus on organizational arrangements, staffing methods, and technical, physical, or financial resources in key agencies.

Appendix II Results on supplementary OLS regressions

Regression of government consumption/GDP on predicted amount of lending

Variable	Coefficient	α	*p*-value
Predicted amount of development-oriented lending	-0.0015	0.0006	0.021

Regression of gross capital formation on predicted amount of lending

Variable	Coefficient	α	*p*-value
Predicted amount of development-oriented lending	0.0047	0.0013	0.000