

Pal, Sarmistha; Roy, Jaideep

Working Paper

Fiscal decentralization and development: How crucial is local politics?

IZA Discussion Papers, No. 5286

Provided in Cooperation with:

IZA – Institute of Labor Economics

Suggested Citation: Pal, Sarmistha; Roy, Jaideep (2010) : Fiscal decentralization and development: How crucial is local politics?, IZA Discussion Papers, No. 5286, Institute for the Study of Labor (IZA), Bonn

This Version is available at:

<https://hdl.handle.net/10419/46129>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

IZA DP No. 5286

**Fiscal Decentralization and Development:
How Crucial is Local Politics?**

Sarmistha Pal
Jaideep Roy

October 2010

Fiscal Decentralization and Development: How Crucial is Local Politics?

Sarmistha Pal

*Brunel University
and IZA*

Jaideep Roy

University of Birmingham

Discussion Paper No. 5286

October 2010

IZA

P.O. Box 7240
53072 Bonn
Germany

Phone: +49-228-3894-0

Fax: +49-228-3894-180

E-mail: iza@iza.org

Any opinions expressed here are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but the institute itself takes no institutional policy positions.

The Institute for the Study of Labor (IZA) in Bonn is a local and virtual international research center and a place of communication between science, politics and business. IZA is an independent nonprofit organization supported by Deutsche Post Foundation. The center is associated with the University of Bonn and offers a stimulating research environment through its international network, workshops and conferences, data service, project support, research visits and doctoral program. IZA engages in (i) original and internationally competitive research in all fields of labor economics, (ii) development of policy concepts, and (iii) dissemination of research results and concepts to the interested public.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ABSTRACT

Fiscal Decentralization and Development: How Crucial is Local Politics?*

Does fiscal decentralization in a politically decentralized less developed country help strengthen democratic institutions at the grass root level? And is the impact of such decentralization on local politics important in determining local development? Our study on Indonesia suggests that fiscal decentralization enhanced free and fair local elections, though the incidence of elite capture, and the consequent breakdown of local democracy, was also present in significant proportions. Fiscal decentralization promoted development mostly in communities which transitioned out from elite capture to embrace free and fair elections. This was followed by communities that experienced the emergence of elite capture. Communities that continued to remain under either elite capture or free and fair elections did the worst. These findings suggest that while the emergence of elite capture exists, it may not necessarily be the most harmful. Instead, and surprisingly so, stability of local polity hurts development the most.

JEL Classification: D72, H77, O18

Keywords: local politics, less developed nation, decentralization

Corresponding author:

Sarmistha Pal
Department of Economics and Finance
Brunel University
Kingston Lane
Uxbridge UB8 3PH, Middlesex
United Kingdom
E-mail: sarmistha.pal@brunel.ac.uk

* We are grateful to Facundo Albornoz-Crespo Siddhartha Bandyopadhyay, Anindya Banerjee, Abigail Barr, Erlene Berg, John Fender, Sugata Ghosh, Anirban Mitra and seminar participants at CSAE Oxford for comments on an earlier draft. Any errors are ours.

Fiscal Decentralization and Development: How Crucial is Local Politics?

1 Introduction

Decentralization is by and large a political decision of national leadership that has important economic consequences. It involves devolution of political or fiscal powers to local governing bodies. Economists address largely the question of whether decentralization enhances economic performance.¹ While the distinction between political decentralization and fiscal decentralization is not always made precise in the literature, it is generally argued that although decentralization may increase the accountability of local governments and strengthen the voice of the poor and the marginalised, it may also enhance the influence of the local elites (see Bardhan (2002)) that then typically erode local democratic rules of preference aggregation. There is also an implicit consensus in this literature that such elite capture is necessarily harmful for local development.

Recently Besley and Coate (2003) and Enikolopov and Zhuravskaya (2007) look at political aspects of fiscal decentralization. Besley and Coate study the impact of fiscal decentralization on local electoral competition in developed nations where free and fair local elections is granted. They argue that the sharing of the costs of local public spending in a centralized system is likely to create a direct conflict of interest between citizens in different jurisdictions. On the other hand, when spending decisions are made by a legislature of locally elected leaders, such conflicts transfer to the legislature itself where the group of elected leaders from different jurisdictions have to bargain amongst themselves. This difference then translates itself into different equilibrium outcomes of political competition in local elections. Enikolopov and Zhuravskaya on the other hand argue that the success of fiscal decentralization depends crucially upon how centralized is the overall political scenario in a given nation. Their data from a large number of transition economies suggests that fiscal decentralization is more successful in those economies which are more politically

¹ Delegation of this nature has several benefits stemming out of inter-jurisdictional competition a la Tiebout (1956), local informational advantages a la Hayek (1948) or preference matching a la Oates (1972). See also, Montinola et al. (1995), Qian and Weingast (1996), Qian and Roland (1998), Maskin et al. (2000) that argue that decentralization is good, and Prud'homme (1995), Tanzi (1996), Cai and Triesman (2004) that argue for the opposite effect.

decentralized. None of these studies however explicitly investigate the possible mechanism(s) as to how fiscal decentralisation may affect local politics itself and how that impacts local development. We aim to bridge this gap in the literature. We look at an economy where even though the degree of political decentralization is high, local level elections may not be free and fair. Our focus is naturally on developing nations where local communities have been allowed traditionally to choose the political process by which community level decisions are made. These processes may range from a set of fully democratic local institutions that implement free and fair elections of local leaders, to situations where a handful of elites defy democratic processes to promote vested interests. It is important to mention here that political decentralization does not necessarily imply grass root democracy in the developing world. While not all developing nations are politically decentralized in this sense, many are.² We then ask whether fiscal decentralization changes the nature of local politics (and the magnitude of elite capture) and whether (and how) these possible political changes are crucial in understanding the impact of fiscal decentralization on local development, which remains rather unexplored.

Indonesia is an important case in point which has a long history of decentralized local governance. The governance of local communities (villages and townships) has been regulated traditionally by customary "adat" laws ever since the Dutch colonial rule that recognized village governments as lawful entities and encouraged self-rule. Local government structures throughout the nation are made up of a headman assisted by an appointed village assembly (LMD). The headman is generally elected by community residents every 5 to 8 years, although there are also many instances where the headman is a member of a group of few powerful individuals who enforce leadership via non-democratic means, a case similar to the notion of elite capture. In any case, development projects and assistance are managed by community resilience boards (LKMD) which work under the leadership of the headman who allocate obtained development grants across households and projects. All such local governing bodies are accountable to the district government.

² See for example the UNDP Local Governance website at http://www.undp.org/governance/focus_local_governance.shtml and the Commonwealth Local Government Forum website at http://www.undp.org/governance/focus_local_governance.shtml. Also, as suggested by Bardhan and Mookherjee (2000), the extent of elite capture at the local level is likely to be context and system specific.

With the demise of Soeharto, Indonesia experienced an extensive decentralization process that has its roots in Law 22/99, enacted in January 2001. It gave local communities more autonomy in raising local revenues, enforced strict budgetary cuts on the central leadership to supply development grants to these communities and instead increased the budget of the district governments for this purpose. It is therefore easy to identify the year 2001 as the point in time when Indonesia experienced fiscal decentralization for the first time in its modern history while, as is clear from the discussion above, the nation is traditionally a politically decentralized one.

We study these local communities between 1997 and 2007, two years separated by the introduction of Law 22/99 in 2001. We also accept that there has been no other major policy change of related concern during this period in Indonesia that could affect the local polity, barring of course the claim that there has been a general trend in the world towards democracy (as we shall see, this possibility can only reinforce our results).

Many developing countries have been experimenting with decentralisation of public service delivery to elected local governments rather than bureaucrats appointed by a central government. It is thus important to understand the effect of fiscal decentralisation on local politics and development, though our knowledge remains rather limited primarily due to lack of data availability.

Our focus on local community has particular advantage over the existing empirical literature that predominantly analysed the effects of decentralization (in general) on public policy using cross country data (see for example, Davoodi and Zou (1998), De Luca et al. (2002), De Mello and Barenstein (2001) and Fishman and Gatti (2002)). Enikopolov and Zhuravskaya (2007) use cross-section and panel data from about 75 developing and transition countries to suggest that decentralization works better with strong national parties who then allow for local leaders to be chosen locally, rather than when the national parties are weak and to avoid political competition, these weaker parties appoint local leaders as administrative subordinates. In particular, they use share of sub-national revenues in total revenues as the main measure of fiscal decentralization. This is however not ideal as there are different strata of sub-national regions, which they themselves acknowledge. We focus on the lowest level of administrative unit which still has an independent polity, called a community (that is, a village or a township) and our measure of fiscal decentralization relates to shares of total

community revenue from central and provincial governments, before and after the announcement of Law 22/99 that initiated this drive towards fiscal decentralization. There are only a handful of studies that use community level single cross-section data to assess the development effect of fiscal decentralisation (Besley et al., 2005). Our advantage is that we have access to two-period community-level panel data, which enables us to identify the causal relationships better. In addition, unlike Besley et al. (2005), we consider the effect of fiscal decentralisation on local politics, an aspect that is not addressed in the past.

The empirical analysis suggests that fiscal decentralization does impact local polity and this impact is crucial in determining whether fiscal decentralization enhances or diminishes local development. In particular, we find that fiscal decentralization did typically foster local democracies, though the issue of elite capture where existing local democracies are uprooted, was also widespread. Moreover, it promoted development mostly in communities which transitioned out from elite capture to embrace free and fair elections. This was followed by communities that experienced the emergence of elite capture, while communities that continued to remain under either elite capture or free and fair elections did the worst. These findings suggest that while the emergence of elite capture was widespread, it may not necessarily be the most harmful. Instead, and surprisingly so for the case of local democracy, stability of local polity hurts development the most. Our results have wider implications for other emerging countries experimenting with similar decentralisation programmes.

2. Data

Our analysis is based on the community level data obtained from 1997 and 2007 Indonesian Family Life Survey (IFLS)³ from 314 rural and urban communities, drawn from 13 provinces including Jakarta, Bali, Java (central, east and south), Sumatra (north, west and south), Lampung, Wntenara and south Kalimantan. This is a particularly rich data set that provides community level information on a whole range of demographic characteristics and access to public goods, local governance and its public finances, citizens' participation in planning and implementation of local development projects, as well as a range of public utilities,

³ Although IFLS data are available for the years 1993, 1998 and 2000 as well, information on local polity could be found only in the 1997 and 2007 surveys.

infrastructure and transport, health and education facilities (see Frankenberg and Thomas (2000) and Strauss et al. (2009) for study design and overview of the data set).

Although IFLS data are available for the years 1993, 1998 and 2000 as well, information on local polity could be found only in the 1997 and 2007 rounds of the survey. 1997 and 2007 rounds of the IFLS asked community leaders about how a leader was selected, which we use to classify these communities. Answers to this question are coded as: (i) voting, (ii) all residents,⁴ (iii) local elites, (iv) local institutions and (v) others. Under voting (code (i)), the standard notion of plurality was employed where the voters were local community residents. Otherwise, local leadership was determined by the choice of local elites (code (iii)) or by existing officials of local government bureaucracies (code (iv)). However it is not clear as to how ‘all residents’ (code (ii)) or ‘others’ (code (v)) selected the local leader, and so we exclude these communities from our analysis. Accordingly, we classify local polity as follows: *Democratic* if a leader is selected by free and fair elections with voters being all community members, and *Oligarchic* if a leader is selected by community elites (codes (iii) and (iv)) who then remain uncontested. We assume that the incidence of oligarchies reflect the size of elite capture.

Access to both 1997 and 2007 rounds of IFLS data also allows us to classify political transition into the following *types* (*V* for voting in local democracies and *O* for oligarchy or elite capture): (a) *VV* [*Stable Democracy*], if the community was democratic in 1997 and remained so in 2007; (b) *VO* [*New Oligarchy*], if the community was democratic in 1997 but turned oligarchic in 2007; (c) *OV* [*New Democracy*], if the community was oligarchic in 1997 but turned democratic in 2007; and (d) *OO* [*Stable Oligarchy*], if the community was oligarchic in 1997 and remained so in 2007.

For each community, we identify three sources of government *revenue*, namely, revenue from central government, provincial government and district government. The rest of the community revenue is generated from local funds.

⁴ We observe a third category of local polity called *consensus building* where a community leader is selected by all residents via village meetings. We exclude this community from our analysis due to lack of clarity of this mechanism arising out of various ambiguous rules and definitions.

Table 1 summarizes the mean shares of grants from different sources as well as development spending for the four different community types identified before and after the introduction of law 22/99. It highlights the aspect of dwindling source of central grants for community development in the post decentralization period. The latter has been accompanied by a corresponding increase in grants from the district government. In other words, fiscal decentralisation shifts the centre of power from the central to the district government.

In order to devise an appropriate index of fiscal decentralisation, we carefully reviewed the existing literature. In many works like Davoodi and Zou (1998), De Mello and Barenstein (2001), Zhuravskaya et al. (2007), the share of sub-national revenues in total government revenues is used as the main measure of fiscal decentralization in their cross-country study. These papers also argue that the results are robust to using the share of sub-national expenditures in total government expenditures as an alternative measure of fiscal decentralization. They also acknowledged that an important shortcoming is that they could not distinguish between state and municipal expenditures and revenues. Lin (2000) performed a province-level analysis of fiscal decentralisation and economic growth and used marginal retention rate of the locally collected budgetary revenue. In contrast to these studies, we consider the lowest level of administrative unit who hardly have any tax-raising power. So for these communities, a relevant measure of fiscal decentralisation pertains to the share of central grant they receive. As mentioned earlier, and most crucially for us, we recognize that with fiscal decentralization, the development funds available from the districts rose significantly and across all community types. Hence from our data it is certain that decentralization moved the fund source from the central government to the district government so that a falling share of central grant is equivalent to a rising share of grant from the sub-national authorities. In addition, we keep the community share of local funds which assumes growing importance after fiscal decentralisation as is evident from Table 1.

We also observe local government spending of the community on different accounts. (i) Development spending refers to spending on new infrastructure as well as maintenance of existing infrastructure; (ii) non-development spending includes spending on staff salary, office maintenance, official trips and contingencies; (iii) some under-developed communities receive grants for various developmental programmes, e.g., IDT for under-developed communities, which we control for in our analysis separately (see further discussion in section 4). Our analysis particularly focuses on the share of development spending in total

spending for each community. Table 1 suggests that changes in the average values of development spending depend on the type of communities. It follows that development spending increased only for the new democracies and new oligarchs; the trend has been rather opposite for the stable democracies and oligarchies alike, with stable oligarchies doing the worst.

3. How Fiscal Decentralisation affects Local Politics?

Initial statistical evidence reveals the following. Fiscal decentralization indeed caused changes in community level politics in Indonesia. While about a two-third of the communities seems to have maintained the same local political environment over the period under analysis, from the remaining one-third, close to 70% transited out from being oligarchies to new democracies, and the remaining 30% of them (roughly 10% of the entire population) gave up democracy, paving way for new oligarchies (see Table 3).

In this section we suggest some plausible links between decentralization, political influence, local politics and community development. In doing so, we classify local leaders by two characteristics: *highly educated* and *local resident*. The IFLS data allows us to clearly see this classification. It is then likely, and particularly so in a less developed country, that highly educated leaders are typically more likely to be wealthy elites and elites in turn, are more likely to have better connections with central and district authorities. Also, selection as a community leader despite not being a resident in the community is more likely to highlight their possible link with the central or the district authorities. The following assumption then seems reasonable.

Assumption A: [Political Contacts]: *Pick a community and consider its leader in 1997. Ceteris paribus, (i) Higher education of the leader increase the chances of more political influence with both District and Central governments; (ii) Local residence of the leader and a larger geographic distance of the community from the District Headquarters reduces the chances that the leader has political influence with the District government; given this, (iii) It is easier to establish political influence with the District government than the Central government.*

One may suspect that communities which had high central funding in 1997 had leaders with political influence with the central government as prior to decentralization it was the central government that decided all about fund allocation across communities. It could then be the case that such communities were typically governed by highly educated leaders who used their political contacts with the centre to sustain power and oppose local elections. We then have the following hypothesis regarding the year 1997.

Hypothesis I Ceteris paribus, communities receiving larger central grants in 1997 were more likely to be oligarchic in that year. Moreover, in each such oligarchic community, leaders were more likely to be highly educated.

We now move to political transition. Suppose Hypothesis I is true. Pick such a community that had very large central grants in 1997 and had a leader who was highly educated. When decentralization took place in 2001, these educated leaders lost the importance of their political connections with the central government but could maintain and possibly invest more in enhancing their contacts with the District authorities (a possibility that is likely given part (iii) of Assumption A). Thus in such communities there is an inertia to remain oligarchic. However, an opposite force cannot be ruled out. The possibility of enhancing district level contacts by the existing oligarchs could have been reduced if the leader was a local resident of a community that is far from the district headquarters.⁵ In the latter cases, current leaders were unable to maintain their local political power and this could have caused a rise in local democracies. Hence we have our second hypothesis.

Hypothesis II Consider a community that was an oligarchy in 1997. Ceteris paribus, decentralization has the following effects on transition of local politics: (a) Higher education of local leaders in 1997 decreases the incidence of local democracy in 2007 and (b) Local residence of leaders in 1997 increases the incidence of local democracies in 2007.

We then classify local communities in terms of availability of opportunities to raise local funds, calling them accordingly, *locally productive* and *locally unproductive*. Such differences may have many economic or social causes that affect the economic environment

⁵ Notice that local residence and distance from the centre could influence the size of central grants in 1997 as well. This is perhaps reflected in the distribution of central grants in 1997. However, the impact with district grants seems to us more sensitive to residence and distance.

of the community. The data set allows us to make this distinction quite easily by looking at the size of local funds in 1997 so that communities with larger local funds are presumably more productive locally. It is then reasonable to assert that decentralization promotes leaders who are more efficient in using local funds in locally productive communities. This is because economic development in productive communities is certain to be one of the main electoral agendas, so that decentralization is more likely to promote electoral competition and local democracies in these communities. Based on these possibilities, we formulate our third hypothesis.

Hypothesis III Ceteris paribus: (a) Decentralization is likely to increase the probability of local democracies in communities that are locally productive as reflected in large shares of local funds in 1997 and (b) in communities which do not have leaders with political connections (meaning they are either not highly educated or are local residents), decentralization cannot harm the process of local democracy.

Although Hypothesis III is plausible, one should be careful in two aspects. First, incumbency of elected leadership may be harmful. That is, even in locally productive communities, if local democracy is traditional (in our case this means it is already democratic in 1997), incumbent leaders may enjoy certain political advantages that then allow them to perform well in elections without having to perform too well in the economic sphere. Hence, it could be that economic performance of new local democracies is better than in democracies which are sustained. As these negative features of incumbency are more likely to be stronger when the incumbent is an oligarch, one may assert that the negative impact of sustenance of oligarchy is the highest. However, if there are communities that were democratic in 1997 but become oligarchic in 2007, it is not clear if this is because now there emerged local leaders with good political links with the district, or is the anti-democratic move driven by other unproductive factors. Hence, the relative ranking of economic performance between new oligarchies and stable democracies becomes a truly empirical question. We then formulate the following hypothesis to check if this holds empirically in our sample.

Hypothesis IV Developmental spending in 2007 is highest in communities that are new democracies and lowest in those that are stable oligarchies. The relative performance of stable democracy versus new oligarchy in the sphere of developmental spending remains ambiguous.

In what follows we shall employ empirical analysis to see if these theoretical predictions are consistent with the data.

4. Methodology

We build our empirical model based on the theoretical possibilities highlighted in Section 3. Since we want to investigate whether the effect of decentralisation on local development depends on the underlying nature of political transition (defining the local polity), one needs to redress the potential selectivity bias (a la Heckman, 1979) when estimating the development spending equation for each type of local polity that we identify, namely, VV , VO , OV , OO . When the selection is over a large number of exclusive choices, the multinomial logit specification is attractive due to its simplicity. Let Z_{ij} denote that community j (a subscript that we drop subsequently for notational simplicity) is of type i . Then,

$$Z_i = \begin{cases} 0 & \text{if } i = OO \\ 1 & \text{if } i = VV \\ 2 & \text{if } i = VO \\ 3 & \text{if } i = OV. \end{cases}$$

We posit that Z_i is determined as follows:

$$Z_i = \gamma'W_i + u_i, \tag{1}$$

where W_i is the set of lagged explanatory variables (from 1997) for the selection and u_i is the random error term. Thus, the Multinomial Logit probability of a given type Z_i is:

$$\Pr[Z_i = k | W_i] = \frac{e^{\gamma_k' W_i}}{\sum_{t=0}^3 e^{\gamma_t' W_i}}, k = 0,1,2,3.$$

The estimated multinomial Logit equations provide a set of probabilities for the four types of local polity in question. Since the dependent variable is discrete in nature, we also calculate the marginal effects for each explanatory variables for the selection equation.

Given the selection mechanism (1), the equation of our primary interest is

$$Y_i = \beta' X_i + \varepsilon_i, \quad (2)$$

where Y_i is the changing share of development spending for the i -th community type over 1997-2007. As before, X_i is the set of lagged explanatory variables explaining Y_i (see further discussion later in this section). The rule is that Y_i is observed only when $Z_i > 0$. Thus,

$$E(Y_i | Z_i > 0) = \beta' X_i + \beta_\lambda \lambda_i(\alpha_u) + v_i, \quad (3)$$

where $\alpha_u = \frac{-\gamma' W_i}{\sigma_u}$. The parameter λ_i is the Inverse Mill's Ratio for the i -th type community, which corrects for the potential selectivity bias. Accordingly, the least square estimates of (3) would produce consistent estimates of β and β_λ . Note also that the estimated coefficient β_λ accounts for the estimated marginal effect, *ceteris paribus*, of the predicted probability of Z_i .

Our key variables in determining (1) and (3) relate to the measures of fiscal decentralization. Following our discussion in section 2, we consider share of *central grant* and *local funds* as the key measures of fiscal decentralisation, which marks a departure from the existing literature. This is clearly linked to our analytical argument that the size of the central grant is a measure of the community leader's link to the centre. Our second argument relates to the influence of the leader in the local community (see section 2). In the absence of any better alternative (e.g., leader's income or wealth, which are unobservable), we use leader's education (i.e., whether the leader has senior high school education or higher), which is likely to be correlated with wealth and also community residency as a proxy for the leader's influence.

An essential requirement for estimating (1) and (3) is that there needs to be some identifying variables in X_i (as opposed to W_i). In addition to the Inverse Mill's Ratio λ_i , X_i includes initial (1997) share of development spending and an index of ethnic fractionalisation in (3), which we define below. The initial development spending is included to account for the possibility of Barro convergence (Barro, 1999) in spending across communities, if any. Also, ethnic fractionalisation has been shown to be another important determinant of public policy (see for example, Barro (1999) and Alesina et al. (2000)). The ethnic fractionalisation index

equals $1 - \sum_i p_i^2$, where p_i is the proportion of the i -th ethnic group in the population, using the size of three largest ethnic groups in each community as provided by the IFLS. Similarly, we also need an identifying variable that is present in the political transition equation (1), but not in the development equation (2). To this end, we include a variable measuring the distance of the community from the district capital. Proximity to the district headquarters may influence the nature of the political link and therefore the probability of political transition.

The variables which are included in both (1) and (3) relate to community population size, religion and rural/urban location. These demographic factors are known determinants of political institutions and development (see for example, Barro (1999)). Communities with greater population size may or may not be more likely to be democratic, or that higher degrees of urbanisation may or may not foster free and fair elections. In the absence of any prior, we thus empirically explore the role of these variables on local polity. While characteristics of the leader (secondary and higher levels of schooling as well as residency in the community), namely, are known to influence public policy (see for example, Besley et al. (2005)), these characteristics are also of relevance for the political transition equation.

4.1. Endogeneity and robustness

Some may argue that fiscal decentralization was endogenous to expectations over local political transitions and local development. Statistically speaking, this is because variation in these variables may not have been orthogonal to unobservable factors that jointly determine the outcomes studied here. The most widely applied approach to identifying treatment effects employs instrumental variable techniques, which rely on identifying an event or a variable that is orthogonal to the unobservable factors likely to affect the outcomes of interest. However, the randomness assumption made with respect to those instruments is subject to much scepticism. Alternatively, economists have also attempted to make use of experiments that objectively randomize treatments to assess their effects in the presence of unobserved heterogeneity. These randomized experiments too are subject to criticisms that they lack generalizability and often do not adhere to the requirement of treatment randomness. Accordingly economists and other social scientists have used natural experiments random treatments that arise truly by chance. The recent political history of Indonesia suggests that the fall of Soeharto and the immediate political decision of the new central leadership of

fiscal decentralization were nearly natural in our context of investigation; thus choice of sample years facilitates identification in our case. *Ceteris paribus*, we determine the effect of share of central grant (our chosen measure of fiscal decentralisation) in 1997 (pre-decentralisation period) to predict the political transition (rather than the political outcome in a given year) or the changing share of development spending (rather than development spending per se in a given year) over 1997-2007. For potential simultaneity to bias our estimates of political transition or changing share of development spending, community leader needs to anticipate share of central grant ten years in advance, which can be ruled out without much loss of generality.

A further issue is that local community leaders become directly accountable to the district government, especially after decentralisation. While we do not observe the characteristics of the districts, the latter may have influenced the nature of local polity. Consequently, we control for community fixed effects to minimize any potential estimation bias arising out of unobserved community-level heterogeneity.

There may also arise some problems concerning reverse causality with respect to some of the explanatory variables used in our analysis. For example, urban areas are likely to be more prosperous and hence may have higher share of development spending. Also they may be more populated with higher diversity and hence democracy could be a more convenient polity. Note however that both X_i and W_i include one-period (i.e., a decade) lagged values of these variables; for potential simultaneity to bias our estimates, the leader needs to anticipate the values of these variables ten years in advance, which can be ruled out. Finally, one must be aware that over the past two decades, there has been a global force towards upholding and nurturing democratic institutions. Perhaps our estimates are then biased in terms of such a worldwide trend. Nevertheless, as our results show the reverse trend in many local communities, such global trends actually strengthen such estimates against democracy.

5. Results and Predictions

Our discussion in this section is divided into two parts. First we report our results on how fiscal decentralization affected local politics. We then show the impact of this changing local

polity on the changing share of development spending in our sample. All Tables and Figures are provided at the end of the text.

5.1 Impact on Local Politics

From Table 1 (and the observed proportions of each community type from Table 3) we can see that the share of central grant for communities which were democratic in 1997 was about 24%, while that for communities which were oligarchic was about 40%. Hence, it is clear that the first part of Hypothesis I holds, that is, communities receiving larger central grants in 1997 were less likely to be democratic in that year. So now we restrict attention to communities which were oligarchies in 1997. Let $P[\text{headshs} | O; Q_k]$ denote the probability that the leader of a community in 1997 was highly educated, given that in that year the community was an oligarchy and that it had a share of central grant greater than the k -th quartile Q_k . Our data shows that $P[\text{headshs} | O; Q_1] = 0.82 < P[\text{headshs} | O; Q_3] = 0.87$. Thus as we move from the lowest to the highest quartile, the probability of head being highly educated increases monotonically in oligarchic communities. This lends support to the second part of Hypothesis I. Therefore, the consequent theory that is built in Section 3 remains plausible. We then move to the next hypotheses.

Table 2 summarizes the multinomial Logit estimates of the baseline regression model (1) while Table 3 compares observed probability with predicted probability of political transition derived from the estimates shown in Table 2. Appendix Table A1 shows the corresponding marginal effects of the key variables of our interest.

Table 2 suggests that the probability of any type of political transition depends on the share of local funds available in 1997. In particular, higher shares of local funds in 1997 enhance the probability of democracy, both for new (viz. column 3) and existing ones (viz. column 1), thus providing some support to Hypothesis III. *Ceteris paribus*, higher share of local funds is however insignificant in determining the likelihood of transition from democracy to oligarchy (column 2).

In contrast, the impact of central funds raised in 1997 on this political transition is different from that of the share of local funds. In particular, the probability of a community transiting

from oligarchy to a new democracy is lower where the share of the central funds available in 1997 was higher. Second, communities with less central funds in 1997 are more likely to retain democracy. In contrast, the share of the central funds available in 1997 remains insignificant when a community transits to new oligarchy.

Third, characteristics of the community leader also play an important role in the political transition in our sample. Note that the communities where the leader is more educated tend to have higher probability of transiting to a new oligarchy while it remains insignificant for new or existing democracies. Also, a leader's residency in the locality boosts the likelihood of democracies (new and existing ones) while it remains insignificant in determining the likelihood for new oligarchies. Finally, communities further from the district headquarters (DHQ) are more likely to foster democracies (new and existing ones). Hence, there is ample evidence in our data that support to Hypothesis II.

Some other control variables also influence the process of political transition. In particular, communities where Islam is the main religion tend to have a higher probability of sustaining democracy. In contrast, underdeveloped communities are less likely to transit out of democracy.

We now move to Table 3. Column 1 shows the actual number of communities in each class, while column 2 shows their relative frequencies. Finally, column 3 summarizes the means and standard deviations of the predicted probabilities of each class derived from Table 2. About 71% of the sample communities tend to be politically stable. Among them, 62% continue to be democratic even after decentralization, while the remaining 38% remain oligarchic. Among the transient communities, 66% are new democracies while the rest are new oligarchs. Interestingly, about 10% of the total sample communities turn out to be new oligarchs. The predicted probabilities closely reflect these relative frequencies observed in the sample, confirming the efficiency of the multinomial logit estimates shown in Table 2.

Note however that although the standard deviations of these predicted probabilities are compatible with the corresponding means, there is some intra group variation that we turn to next. While Table 3 reflects the average predicted probability of political transition, Figures 1 to 4 depict the distribution of these probabilities in the sample. Figure 1 shows that communities sustaining democracy were truly and distinctly bi-modal; almost 50% of them were highly likely to remain democratic while the rest were highly likely to become

oligarchic. In contrast, the probability distributions of new democracies (Figure 2) and new oligarchies (Figure 3) tend to highlight a skewed (to the left) pattern; in each case, more than 50% had less than 10% chance of switching their polity. For sustaining oligarchs (Figure 4), about 60% had only about 10% chance of maintaining the polity while about 10% had more than 80% chance of doing so.

5.2. Impact on Local Development Spending

Table 4 summarizes the selectivity corrected estimates of *changing* share of development spending over the decade (1997-2007) for each type of local political transition, namely, *VV*, *VO*, *OV* and *OO*.⁶ Since the inverse Mill's Ratio is a function of the respective predicted probability of transition, sign and significance of inverse Mill's Ratios allow us to explore the variation in changing share of development spending, *ceteris paribus*, with predicted probability of political transitions. In particular, these estimated coefficients are negative and significant for *VV*, *VO* and *OO*, while it is positive and significant for *OV*. In other words, whenever the probability of a new democracy rises in a given locality, decentralization leads to an increase in development spending, which lends support to Hypothesis IV; otherwise, decentralization lowers local development spending.

Some other findings are interesting too. In all cases, a higher share of initial development spending is associated with lower development spending over the decade, thus confirming the conditional convergence hypothesis of Barro (1999).

Characteristics of the community leader tend to influence this change in development spending. In particular, the education of the community leader matters (and is beneficial) only in stable democracies (i.e. *VV*). Whether the community leader is a resident member seems important (positively) only in stable oligarchies, suggesting the case of preference matching.

Degree of ethnic fractionalization only matters for stable democracies in that local communities with a higher fractionalization tend to experience a lower spending in our

⁶ Note that we also tried to include the share of central grant and local funds in the determination of share of development spending. Since these variables were never significant in any specification, we drop them in the parsimonious specification shown here.

sample. This is compatible with results found by Alesina et al. (2000) and Devarajan et al. (1996) for example.

In sum, our analysis suggests that political connections of local leaders with central and district authorities, some decisive features of these leaders and geographical locations of the communities in question do matter in determining the impact of fiscal decentralization on the nature of local politics and development.

6. Conclusion

The paper attempts to explore whether fiscal decentralization can foster local democracy in an economy which is already politically decentralized, and to see if the economic consequences of such decentralization are significantly determined by its political impact. Indonesia is an important case in point which has a long tradition of political decentralization inferred by the Dutch colonial rule, while the country has initiated its fiscal decentralization drive early in the Millennium. Using recent 1997 and 2007 rounds of the Indonesian Family Life Survey (IFLS) community-level data, the paper finds that fiscal decentralization did not necessarily promote local democracy. The most interesting finding is that fiscal decentralization fostered local development only if it changed the local polity, as a stable local polity, even if democratic, reduced development after the decentralization. Consequently, it follows that the emergence of elite capture was not necessarily the worst scenario for local development spending. Instead, a long lasting rule of the elite hurt development the most in Indonesia.

Tables and Figures

Community classification by type of political transition								
	VV		VO		OV		OO	
Share of	1997	2007	1997	2007	1997	2007	1997	2007
Central grant	0.23	0.08	0.25	0.07	0.43	0.09	0.34	0.01
Provincial grant	0.04	0.07	0.13	0.09	0.07	0.15	0.41	0.29
District grant	0.04	0.34	0.35	0.40	0.05	0.41	0.15	0.34
Local funds	0.65	0.50	0.19	0.44	0.41	0.35	0.01	0.36
Development spending	0.67	0.54	0.56	0.57	0.52	0.54	0.53	0.40

Table 1: Descriptive statistics of central funding and local spending across different types of communities in 1997 and 2007.

Note on community classification

VV: Voting in 1997 and 2007 (stable democracies)

VO: Voting in 1997, but oligarchy in 2007 (new oligarchies)

OV: Oligarchy in 1997, voting in 2007 (new democracies)

OO: Oligarchy in 1997 and 2007 (stable oligarchies)

VARIABLES	(1) voting-voting	(2) voting-oligarchy	(3) oligarchy-voting
Central grant '97	-2.888** (1.462)	-9.148 (5.160)	-2.566* (1.510)
Local funds '97	6.272* (3.689)	0.595 (4.235)	7.560* (3.992)
Leader resident	0.0488** (0.0197)	-0.0304 (0.0197)	0.0191 (0.0149)
Leader high sch '97	-1.239 (1.323)	21.68*** (2.525)	-1.361 (1.088)
Population '97	0.0851 (0.750)	1.852 (1.222)	0.160 (0.684)
Hhs with sch. '97	-3.752 (5.201)	17.99*** (6.794)	-3.435 (4.126)
Ethnic hety '97	-1.205 (3.491)	-8.233 (5.348)	1.230 (3.002)
Rural '97	1.426 (1.642)	3.936 (2.459)	-0.0497 (1.332)
Islam '97	3.150** (1.605)	7.07 (5.471)	2.268** (1.146)
undev97	1.068 (1.131)	-45.05*** (5.580)	1.177 (0.839)
Distance from DHQ	0.244** (0.109)	0.712 (0.634)	0.360* (0.202)
Intercept	Yes	Yes	Yes
District FE	Yes	Yes	Yes
Log-pseudeoL	-78.6040		
Pseudo R ²	0.6358		
Observations	180	180	180

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1
Oligarchy-Oligarchy is the base category

Table 2: Multinomial Logit Estimates of the Probability of Political Transition 1997-2007

Community Classification by type of political transition (1997-2007)	(1) Number of communities	(2) Observed probability	(3) Predicted probability Mean (sd)
Voting-Voting	89	0.44	0.45 (0.38)
Oligarchy-Voting	38	0.19	0.19 (0.17)
Voting-Oligarchy	20	0.10	0.10 (0.11)
Oligarchy-Oligarchy	55	0.27	0.26 (0.34)

Table 3: Observed and Predicted Probability of Political Transition.

Note on community classification

VV: Voting in 1997 and 2007 (stable democracies)

VO: Voting in 1997, but oligarchy in 2007 (new oligarchies)

OV: Oligarchy in 1997, voting in 2007 (new democracies)

OO: Oligarchy in 1997 and 2007 (stable oligarchies)

	(1)	(2)	(3)	(4)
VARIABLES	VV	OV	VO	OO
Initial share of dev spending_97	-1.106*** (0.163)	-1.008** (0.340)	-1.676 (3.068)	-1.135*** (0.302)
Population size 97	-2.18e-06 (5.07e-06)	1.16e-05* (6.91e-06)	1.68e-05 (3.20e-05)	-1.45e-05 (9.43e-06)
Ethnic heterogeneity '97	-0.144* (0.0754)	-0.0116 (0.147)	1.078 (2.538)	0.0696 (0.537)
Rural '97	0.193** (0.0937)	-0.0871 (0.153)	(dropped)	-1.031 (0.932)
Islam '97	0.435*** (0.108)	0.416* (0.199)	0.304 (0.475)	-0.435 (0.351)
Head's education>= senior high school '97	0.158** (0.0648)	-0.130 (0.178)	(dropped)	0.0168 (0.196)
Head is a resident in the community '97	-0.0732 (0.0792)	-0.213 (0.169)	-0.388 (0.290)	0.169* (0.101)
Mill's ratio	-0.0616* (0.0302)	0.0263** (0.012)	-0.234* (0.123)	-0.124** (0.05)
Intercept	YES	YES	YES	YES
District FE	YES	YES	YES	YES
R-squared	0.449	0.630	0.793	0.619
Observations	89	38	20	55

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

Table 4: Selectivity-corrected estimates of changing share of community-level development spending.

VV: Voting in 1997 and 2007 (stable democracies)

VO: Voting in 1997, but oligarchy in 2007 (new oligarchies)

OV: Oligarchy in 1997, voting in 2007 (new democracies)

OO: Oligarchy in 1997 and 2007 (stable oligarchies)

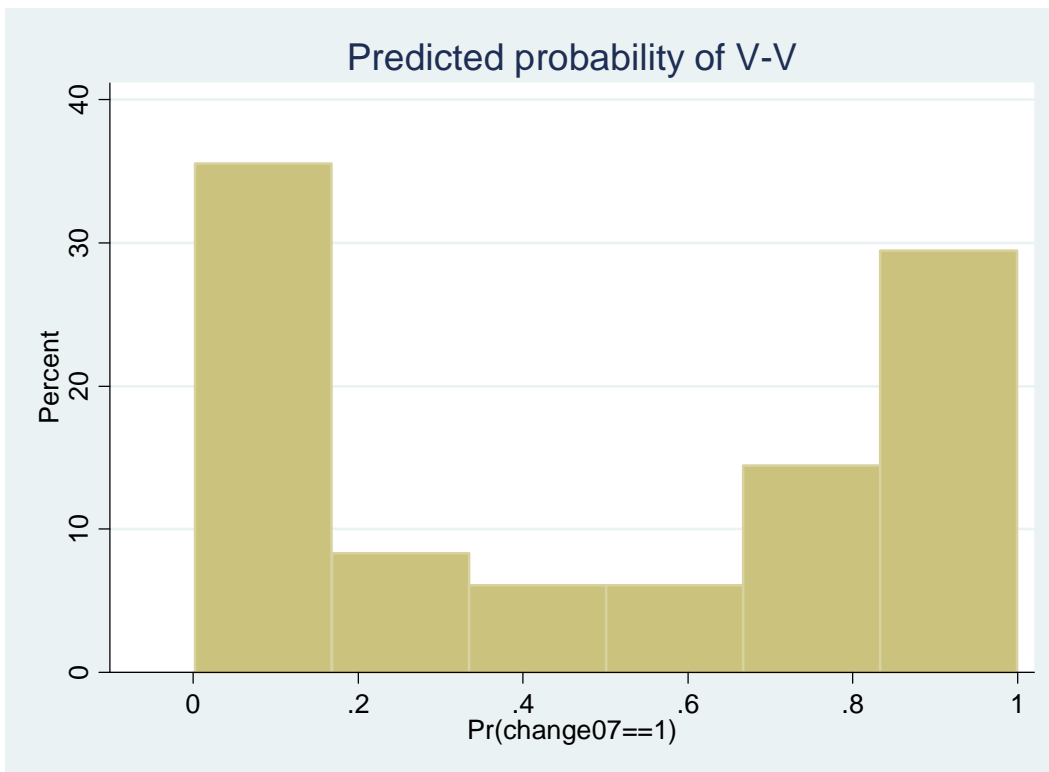


Figure 1: Distribution of the Predicted Probability of Stable Democracies

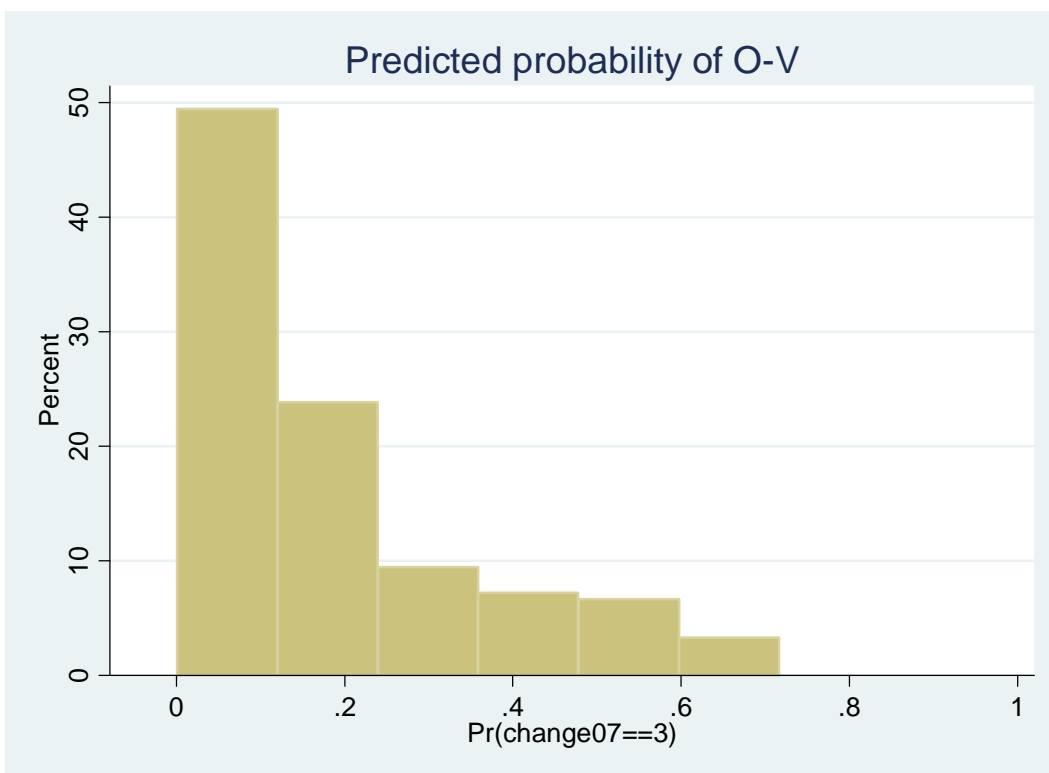


Figure 2: Distribution of the Predicted Probability of New Democracies.

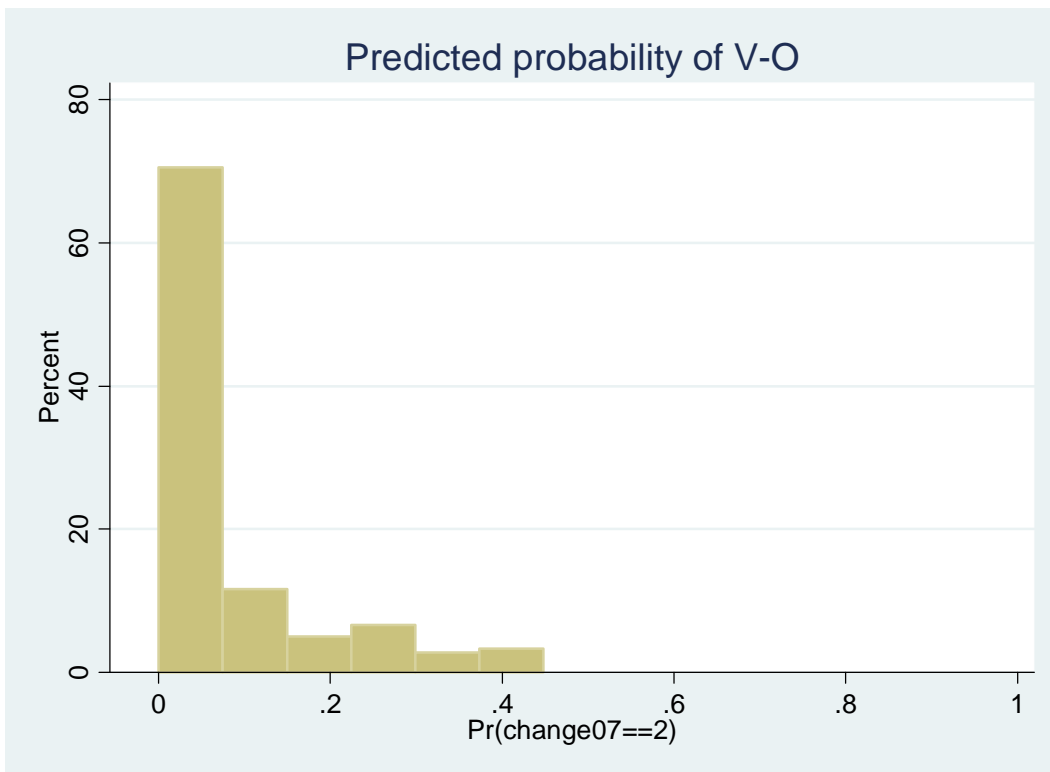


Figure 3: Distribution of the Predicted Probability of New Oligarchies.

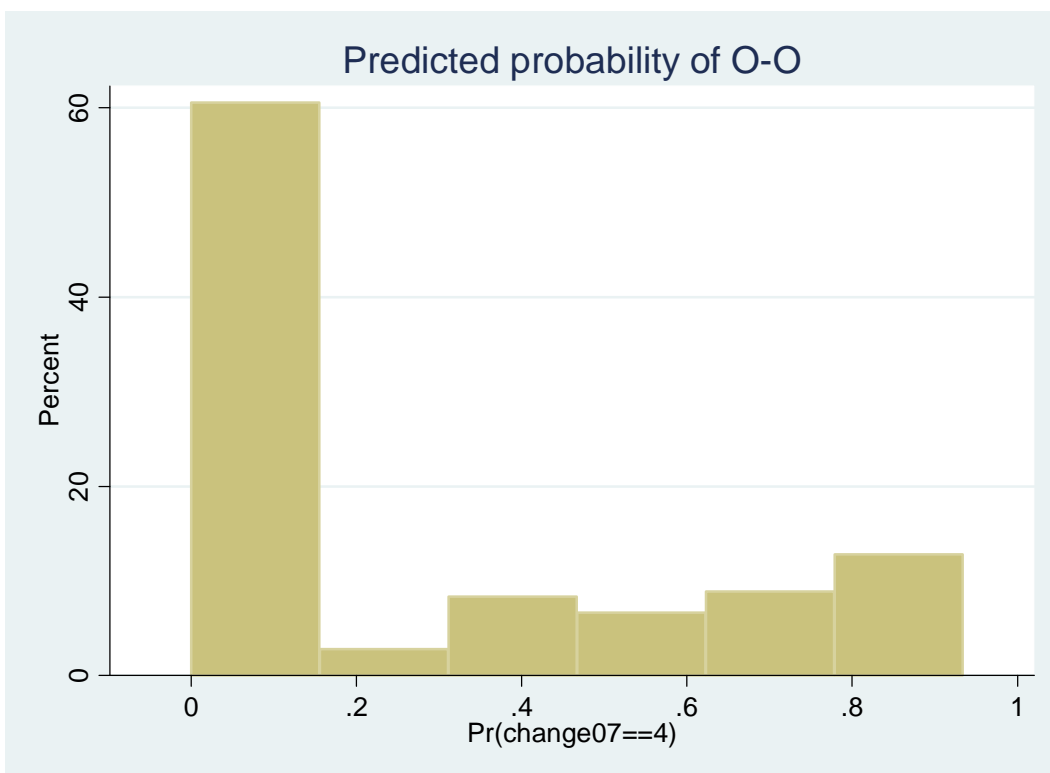


Figure 4: Distribution of the Predicted Probability of Stable Oligarchies.

References

- [1] Alesina, A. R., R. Baqir and W. Easterly (2000). 'Redistributive public employment,' *Journal of Urban Economics*, 48, pp. 219 - 241.
- [2] Bardhan, P. (2002). 'Decentralisation of governance and development,' *Journal of Economic Perspectives*, pp. 185-205.
- [3] Bardhan, P. and D. Mookherjee (2000). 'Capture and governance at local and national levels,' *American Economic Review*, 90, pp. 135 - 139.
- [4] Barro, R. J. (1999). 'Determination of democracy,' *Journal of Political Economy*, 107(6), pp. S158 - S183.
- [5] Beard, V. (2007). 'Household contribution to community development in Indonesia,' *World Development*, 35(4), pp. 607-25.
- [6] Besley and Coate (2003). 'Centralized versus decentralized provision of local public goods: a political economy approach,' *Journal of Public Economics*, 87, pp. 2611 - 2637.
- [7] Besley, T., R. Pande, L. Rahman and V. Rao. (2005). 'Participatory democracy in action: Survey Evidence from India', *Journal of the European Economic Association*, Papers and Proceedings, 3, pp. 648-57.
- [8] Cai, H. and D. Triesman (2004). 'State corroding federalism,' *Journal of Public Economics*, 88, pp. 819 - 843.
- [9] Davoodi, H. and H. Zou (1998). 'Fiscal decentralization and economic growth: a cross country study,' *Journal of Urban Economics*, 43, pp. 244 - 257.
- [10] De Luca, Miguel, Mark P. Jones and Maria Ines Tula. (2002). 'Black rooms or ballot boxes: candidate nomination in Argentina,' *Comparative Political Studies*, 35, pp. 413 - 436.
- [11] De Mello, L. and M. Barenstein (2001). 'Fiscal decentralization and governance: a cross-country analysis,' IMF Working Paper No. WP/01/71.
- [12] Devarajan, S. V. Swaroop and H. Zou. (1996) 'The Composition of Public Expenditure and Economic Growth', *Journal of Monetary Economics* 37: 313-344.

- [13] Enikopolov and Zhuravskaya (2007). 'Decentralization and political institutions,' *Journal of Public Economics*, 91, pp. 2261 - 2290.
- [14] Fisman, R. and R. Gatti (2002). 'Decentralization and corruption: evidence across countries,' *Journal of Public Economics*, 83, pp. 325 - 346.
- [15] Frankenberg, E. and D. Thomas. (2000). "Study Design and Results from Waves 1 and 2," Santa Monica, CA, Rand, DRU - 2238, Volumes 1-7, NIA/NICH.
- [16] Hayek, F. A. (1948). 'Individualism and economic order,' University of Chicago Press, Chicago.
- [17] Heckman, J. (1979) 'Sample Selection Bias as a Specification Error', *Econometrica* 47, 153-61.
- [18] Inman, R. and D. Rubinfeld (1997a). 'Rethinking federalism,' *Journal of Economic Perspectives*, 11 (4), pp. 43 - 64.
- [19] Inman, R. and D. Rubinfeld (1997b). 'The political economy of federalism,' in: Mueller, D. C. (ed.), *Perspectives on Public Choice: A Handbook*. Cambridge University Press, Cambridge.
- [20] Lockwood, B. (2002). 'Distributive politics and the benefits of decentralization,' *Review of Economic Studies*, 69 (2), pp. 313 - 338.
- [21] Maskin, E., Y. Qian and C. Xu. (2000). 'Incentives, information and organizational form.' *Review of Economic Studies*, 67 (2), pp. 359 - 378.
- [22] Mansuri, G. and Rao. (2004). 'Community Based and Driven Development: A Critical Review', *World Bank Research Observer* 19(1) 1-39.
- [23] Monitola, G., Y. Qian and B. R. Weingast. (1995). 'Federalism, Chinese style: the political basis for economic success in China,' *World Politics*, 48 (1), pp. 50 - 81.
- [24] Oates, W. (1972). 'Fiscal Federalism,' Harcourt, New York.
- [25] Olken, B. (2007). 'Political Institutions and Local Public Goods,' mimeo, Harvard University, February.

[26] Prud'homme, R. (1995). 'The dangers of decentralization,' *World Bank Research Observer*, 10 (2), pp. 21 - 26.

[27] Qian, Y. and G. Roland (1998). 'Federalism and the soft budget constraint,' *American Economic Review*, 88 (5), pp. 1143 - 1162.

[28] Qian, Y. and B. Weingast (1996). 'China's transition to markets: market-preserving federalism, Chinese style,' *Journal of Policy Reform*, 1, pp. 149 - 185.

[29] Strauss, J., F. Witoelar, B. Sikoki and A. M. Wattie (2009). "The 4th Wave of the Indonesian Family Life Survey (IFLS4): Overview and Field Report," WR - 675/1 - NIA/NICHD.

[30] Tiebout, C. (1956). 'A pure theory of local expenditures,' *Journal of Political Economy*, 64 (5), pp. 416 - 424.

[31] Tanzi, V. (1996). 'Fiscal federalism and decentralization: a review of some efficiency and macroeconomic aspects,' Annual World Bank Conference on Development Economics, 1995. *World Bank*, pp. 295 - 316.

Appendix

Table A1. Multinomial logit marginal effects of political transition, selected variables

Variables	1 voting-voting	2 voting-oligarchy	3 oligarchy-voting
Central grant '97	-0.88064**	-0.00001	-0.896678**
	0.36726	0.00006	0.36365
Local funds'97	0.0752*	-0.00005	0.091777**
	0.03774	0.00004	0.037087
Leader Resident 97	0.22478*	-0.00019*	-0.09239
	0.13306	0.00011	0.21687
Leader schooling 97	0.015549	0.0006**	-0.02706
	0.26417	0.00003	0.26377