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Abstract

This paper investigates the determinants of financial deepening across regions in Indonesia after the institutional reforms which brought the country to become more decentralized. Using provincial-level data for 33 provinces from 2004 to 2010, we find that poor local governance significantly impedes financial deepening. Our results also conclude that in the socioeconomically less developed regions, the level of financial deepening is lower than that of more developed regions. Various policy implications are provided. Even though decentralization has been implemented, regional disparity in the form of financial deepening still exists. Improving local governance should be imposed to facilitate favorable business environment. Moreover, regulators have to reconsider regulations that have constrained bank lending.

Keywords: Financial deepening, Local governance, Socioeconomic, Indonesia

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1. Introduction

Severe regional development disparity under the New Order regime in Indonesia (Akita and Alisjahbana, 2002; Aritenang, 2008) was believed to be due to strong centralization during such a regime[3]. Following the harmful 1997/1998 economic crisis and the fall of the regime, decentralization and local democratization have been implemented as a part of the institutional reforms (Henderson and Kuncoro, 2011). Decentralization is expected to reduce inequality in economic development as the local governments at the provincial and district/municipal levels now have more latitude in establishing cooperation with organizations in foreign countries which could increase the openness of the regions (Aritenang, 2008). To bolster economic growth, one important aspect that should be considered is developing the financial sector to facilitate growth (e.g. King and Levine, 1993; Levine, 1997; Demirguc-Kunt and Maksimovic, 1998; Rajan and Zingales, 2003; Roe and Siegel, 2011). However, even though decentralization has already been extensively implemented, the degree of financial deepening in Indonesia still highly varies across regions. Indonesian commercial banks have performed well in terms of profitability and soundness; however, they fail to broaden access to finance, particularly for the poor as well as micro, small and medium enterprises, which therefore in general Indonesia are still categorized as "underbanked" (Rosengard and Prasetyantoko, 2011).

The present paper investigates the determinants of cross-region differences in financial deepening in Indonesia. More specifically we question whether local governance and socioeconomic conditions contribute to determine the level of financial deepening which is measured by three proxies: the ratio of loans to province's GDP, the ratio of loans granted to micro, small, and medium enterprises (MSMEs)[4] over province's GDP and the ratio of commercial bank offices per million province's population[5]. We extend the literature on the determinants of financial deepening by studying differences within a country instead of differences across countries which enables us to reduce noise and the number of controlling factors in our investigation. Controlling for regional characteristics, we find that poor local

[3] The New Order (Indonesian: *Orde Baru*) regime under President Soeharto led Indonesia for 32 years (1966-1998). President Soeharto stepped down in May 1998 when the chronic 1997/1998 economic crisis dragged the country into a social riot.

[4] Micro, small and medium enterprises are dominant business units in Indonesia. These firms represent a significant contribution both in urban and in rural areas. Therefore, bank lending to micro, small and medium enterprises is an important issue in Indonesia (Trinugroho et al., 2012).

[5] We focus on the banking development as the measure of financial deepening because the capital market and other financial intermediation institutions were still relatively underdeveloped and highly concentrated in some large cities.

governance is significantly and negatively associated with financial deepening. Our results also reveal that in the socioeconomically less developed regions, the level of financial deepening is significantly lower than that of more developed regions.

The rest of this paper is structured as follows. Section 2 reviews previous work on related issues. We discuss the institutional background in Indonesia in section 3. In Section 4, we describe the methodology. Section 5 reports the results and robustness checks. Section 6 concludes our findings and provides policy implications.

2. Literature Review

Financial deepening is generally defined as the growth in the scale of financial transactions related to the real economy (Hamori and Hashiguchi, 2012). A growing body of literature has outlined factors determining cross-country differences in financial development particularly stressing on institutional factors. According to the seminal papers of La Porta et al. (1997, 1998) on law and finance, that have empirically examined (e.g. La Porta et al., 1997, 1998, Levine, 1998, Beck et al., 2003; Gallindo and Micco, 2004; Gallindo and Micco, 2005; Laeven and Majnoni, 2005; Djankov et al., 2007; Dehesa et al., 2007; Dietrich et al., 2009), several country-level variables - related to legal institutions such as legal origin, credit rights, rule of law and quality of law enforcement - matter to explain some aspects of finance, for instance credit to private sector, capital market development, investor protection and cost of financial intermediation. La Porta et al., (1997) and Levine, (1998), in a cross country study, find that the breadth of the credit market is positively correlated with good law enforcement and protection of creditor rights. Creditor rights protection stimulates both lenders and borrowers to enter into financial contracts and subsequently boosts financial development (Galindo and Micco, 2004). Djankov et al. (2007) underline two major determinants of private credit as suggested by economic theory. First, the power of creditors which reflects how easy lenders can force repayment, take collateral or even take control of the firm plays an important role. Second, the quality of information is also important as lenders would more likely act as lenders if they are well-informed on the borrowers. Rajan and Zingales (2003) and Becerra et al. (2012) emphasize the impact of political factors on financial development. Another comprehensive explanation on the determinants of financial development is provided by Herger et al. (2008) highlighting three determinants of a country’s financial development: cultural heritage, institutional factors, and the degree of openness and transparency. More recently, Roe and Siegel (2011) underline the impact of political stability on financial development indicating that after controlling for investor protection, legal origin, and trade openness, political instability can significantly impede a country's financial development.

Referring to those who work on the matter of institutional factors, first, we consider that the quality of local governance greatly influences the level of provincial financial depth. As explained by Rajan and Zingales (2003), government interventions in the financial sector development should be in the forms of improving property rights, promoting transparency and disclosure, ensuring legal system effectiveness, and facilitating regulatory infrastructure. Although law including its features is generally identical among regions within a country, the quality of its enforcement is not necessarily the same. Accordingly, the quality of local governance is important to ensure that legal institutions are well enforced particularly regarding the creditor/ lender rights. Moreover, local governance, especially with regard to the bureaucratic process in doing business, indicates how well the local government facilitates favorable business conditions. Poor governance is highly associated with corruption and rent seeking behaviors which are detrimental factors to business investment and public infrastructure development. Subsequently, commercial banks may be reluctant to establish their business in the poor governance regions because it is quite risky and costly.

Another major factor that could determine the degree of financial intermediation at the provincial level in Indonesia is the socioeconomic conditions. The socioeconomic conditions represent some aspects of quality of life such as education, poverty, life expectancy, living standards, and unemployment. Related to financial deepening, the impact of socioeconomic conditions could be viewed from lender (banks) and borrower sides. From the lender side, as argued by Djankov et al., (2007) and Japelli and Pagano (2002) lenders would be more willing to deal with borrowers if they are well informed. Hence, in the socioeconomically less developed regions banks have less incentives to channel credits as the information as well as the quality of borrowers are inadequate. It is therefore more expensive for banks to grant loans in terms of information and dealing costs. Moreover insufficient quality of borrowers could increase bank credit risk.

From the borrower side, the decision to borrow money from banks is also determined by socioeconomic conditions. For instance, for less educated people, the process of getting loans from banks may be perceived as more complicated than the process of obtaining a loan from predatory lender[6] or a pawnshop. Therefore, they tend to avoid borrowing money from commercial banks.

3. Institutional Background

As an archipelago and comprised of so many ethnic groups with different languages, religions, and traditions, it is quite difficult to manage Indonesia and to achieve equal economic development. The New Order regime applied the "trickle-down economics" theory which relied on growth as the most important element in economic development. It was expected that this economic system would lead to a common prosperity because the trickle-down effect could also reach the poor. However, the implementation of this system failed. The chronic 1997/1998 economic crisis dragged the country into a social and political unrest and it generated a serious conflict of class between the poor and the rich as the gap between the two has widened over the years. Economic development inequality across regions was also pronounced during the regime.

The Indonesia's institutional reforms which were implemented in the latter half of 1998 have led the country to become more democratized, decentralized, and deregulated (Mursitama, 2006; Henderson and Kuncoro, 2011). Referring to the Indonesian decentralization Law No 22/1999, the local governments now have authorities in all governmental functions except foreign policy, security and defense, religion, judiciary, fiscal and monetary policy, and some other aspects. Moreover, local governments are also permitted to establish cooperation with organizations in foreign countries which could increase their openness (Aritenang, 2008), and subsequently should accelerate the financial development of the regions (Herger et al., 2008). On the other hand, however, decentralization and local democratization lead to abuse of power as well. Many powerful local political figures play dominant roles in many aspects. They tend to act as "little kings" including providing privileges to those who seek the rents.

[6] Predatory lending in Indonesia is a non-bank lending with high interest rate charged mostly on daily or weekly repayment basis. It is slightly different with the concept of payday lending that has been regulated in some states in the US (e.g. Stegman and Faris, 2003; Stegman, 2007; Morse, 2011). Payday lending is a source of short-term consumer credit in low- and moderate-income communities given to those having fixed-income (mostly salary), while predatory lending in the Indonesia's case is such loans given to those with or without (mostly without) fixed-income. In the Indonesian language, such money lenders are usually called *rentenir* or *tengkulak* or *bank plecit*.

For years, broadening access to finance, particularly for the poor as well as micro, small and medium enterprises (MSMEs), has been a central issue in Indonesia. Even though this country is known as an example of the success of microfinance[7] (Hamada, 2010), Indonesia is generally still "underbanked" (Rosengard and Prasetyantoko, 2011), especially with regard to access to finance for the poor and MSMEs. Moreover, paradoxically, this credit constraint is strengthened by bank regulation; for risk management purposes, bank borrowers' income has to exceed three times the borrowed funds. Another regulatory constraint to widen access to bank financing, as revealed by Rosengard and Prasetyantoko (2011), is the introduction of Indonesian banking architecture (Indonesian: *Arsitektur Perbankan Indonesia*/ API)[8] stressing banking consolidation which subsequently has strengthened market power exacerbating the inefficiency of bank intermediation.

4. Methodology

We investigate the determinants of financial deepening across regions in Indonesia after the decentralization process. We use panel data for 33 provinces from 2004 to 2010.

4.1. Variables and Data

- *Financial Depth*

As explained earlier, we have three proxies of our dependent variable (financial depth) which are:

- The ratio of credit released by commercial banks located in a province to province's GDP
- The ratio of commercial bank loans given to micro, small and medium enterprises in a province over the province's GDP
- The ratio of number of bank branches per million population of the province

Data on bank loans, bank loans to MSMEs and commercial bank offices at the provincial level are collected from Bank Indonesia (Central bank of Indonesia), while data on

[7] Hamada (2010) exemplifies BRI (Indonesian: *Bank Rakyat Indonesia*), the third largest Indonesian state-owned bank, as the one of the world's most successful commercialization of microfinance as it is supported by nationwide network of microfinance local units enabling this bank to release large quantity of loans.
[8] The Indonesian Banking Architecture, a road map of the Indonesian banking sector which would be implemented gradually, was introduced by the Indonesian government in 2004 (Trinugroho et al., 2012).

provinces’ GDP and provinces' population come from the Indonesia Statistics Bureau (Indonesian: *Biro Pusat Statistik/ BPS*).

- *Local Governance*

To measure local governance, we rely on the local governance index released by the Partnership (Indonesian: *Kemitraan*), a multi-stakeholder organization which is assigned to promote and institutionalize good governance principles in Indonesian society by implementing harmonized reform programs to strengthen public service governance, deepen democracy, improve security and justice and improve economic and environmental governance. This index defines governance as the process of formulation and implementation of rules and regulation through interaction between state, civil society, and economic society. Therefore, it consists of four sub-indexes which are bureaucracy index, government index, civil society index, and economic society index. However, as the focus of local governance in this paper is to assess the government roles in promoting financial development, we only take the bureaucracy index and government index as the proxies of local governance. The bureaucracy index reflects the governance of public service, local revenue collection and the regulation of the local economy, while the government index measures the governance of the government functions which are regulatory function, development coordination and budget allocation function. Each index consists of six principles of governance which are participation, fairness, accountability, transparency, efficiency and effectiveness. The score ranges from 0 to 10.

- *Regional socioeconomic Conditions*

Socioeconomic conditions reflect some aspects of quality of life. Therefore, human development and the level of poverty could be considered as suitable proxies for regions' socioeconomic conditions.

- Human Development Index

We retrieve data on the regional human development index (HDI) from the BPS. Referring to the UNDP, the BPS defines the human development index as a process of enlarging the choice of people. Therefore, there are three aspects in measuring the HDI which are life expectancy, education and living standards.

- Poverty

We obtain data on the level of poverty of regions from the BPS. The level of poverty is measured as the number of population below the poverty threshold (line) to total population.

- *Control Variables*

- Conflict Regions

We include a dummy variable for regions that are unstable in terms of politic and security (conflict regions). The dark side of the institutional reforms is political instability in some regions which lead to a disintegration problem as they insist to be much more decentralized. Roe and Siegel (2011) also find that cross country difference in financial development is also influenced by the level of political stability.

- Outside Java island

Indonesia has a unique feature regarding its location that is geographically spread out. To control for this geographical aspect, we account for a dummy variable taking a value of 1 for provinces situated outside the Java Island. Java is considered as the most developed island in Indonesia as it benefited much more from the centralization policy of the New Order regime. Java is also the island where the capital of Indonesia (Jakarta) is located.

- New Province

Another implication of the institutional reforms was splitting some provinces into new provinces. Before the reforms, the number of provinces was 27 provinces. 7 new provinces emerged early after the reforms and 1 province (East Timor) decided to become a new country. Therefore currently Indonesia consists of 33 provinces. To account for possible differences in financial development between new provinces and existing provinces, we include a dummy variable for new provinces.

- Budget Deficit

We include a dummy variable taking a value of 1 for regions with governments facing budget deficits following the study of Gallindo and Micco (2004). Two contradictory consequences may arise concerning the impact of deficits of local government budgets on financial deepening. As argued by Chen et al. (2011), budget deficits could increase incentive to rent-seeking which is a detrimental factor to investment and business growth. On the other side, budget deficits could also encourage the local government to promote investments and infrastructure development through public-private partnerships which subsequently could increase the bank lending for project financing.

We collect information regarding the budget of local governments from the Supreme Audit Institution (Indonesian: *Badan Pemeriksa Keuangan*/ BPK). Local governments have to report their financial reports to the BPK for the auditing purpose.

- GDP per Capita

We also control for natural log of GDP following the studies of Gallindo and Micco (2004) and Roe and Siegel (2011). Data on regional GDP as well as provincial population are obtained from the BPS. Because the data on population are based on ten-yearly census, we interpolate them to get yearly data.

- Oil or Gas Producer

The last control variable is a dummy variable to account for regions which are oil or gas producers. Data to identify whether a region is an oil or gas producer is obtained from the Ministry of Energy and Natural Resources.

4.2. Estimation Strategy

We use OLS to run our specifications on the determinants of financial development following the studies of Galindo and Micco (2004) and Dehesa et al. (2007) in a cross-country study. As the bureaucracy index and government index are highly correlated, we do not introduce these two variables concurrently. Similarly, because of their strong correlations, we do not introduce variables such as the human development index, the poverty variable and the dummy for conflict regions at the same time.

5. Results

5.1. Descriptive Statistics and Correlation of variables

Descriptive statistics of variables is presented in table 1. We present the statistics of financial depth for each province in table 2. Table 3 exhibits the correlation matrix of variables.

Insert Table 1 here

Insert Table 2 here

Insert Table 3 here

As presented in the descriptive statistics in table 2, the average ratio of credit released by commercial banks located in Jakarta to Jakarta's GDP during the period we study is 80.41% (the maximum), while 6.07% is the minimum average of such a ratio which is for the province of Sulawesi Tenggara. As shown in table 1, the standard deviation of this ratio is 15.2%, while the standard deviation of the ratio of commercial bank loans given to micro, small and medium enterprises in a province over the province's GDP is 10.4%. The data clearly show that the level of financial deepening is imbalanced across regions. If we turn to the ratio of the number of bank branches per million population of province, again we notice a large dispersion among regions. During the observation period, the average of this ratio for Jakarta is 54 bank branches per million of inhabitants, while in Sulawesi Tenggara, 4 bank offices per million people is the average.

As expected, the correlation matrix shows that the proxies of local governance which are the bureaucracy index and the government index are positively correlated with all of our dependent variables. We also find that the human development index is positively correlated with the proxies of financial depth, while the level of poverty is negatively correlated with the financial depth's measures.

5.2. Empirical Results

Insert Table 4 here

Table 4 presents the results of OLS regression of our first proxy of financial depth which is the ratio of credit released by commercial banks located in a province to local GDP. Our results show that provinces with a higher level of bureaucracy index have a significantly higher ratio of commercial bank credit to local GDP. Likewise, the government index is significantly and positively associated with our first measure of financial depth. Turning to the impact of socioeconomic conditions, as expected, we find that human development index is positively associated with the level of bank loans to province's GDP. Similarly, the ratio of loans released by commercial banks located in a province to province's GDP is significantly lower for the provinces with a higher level of poverty.

Insert Table 5 here

Table 5 reports the results of OLS regressions of the ratio of commercial bank loans given to micro, small and medium enterprises (MSMEs) in a province over province's GDP. The coefficients of bureaucracy index and government index are all positive and significant. Similar results are found for the coefficients of the human development index. Poverty is negatively associated with the depth banks released loans to MSMEs.

Insert Table 6 here

Table 6 exhibits the results of OLS regressions of the ratio of number of bank branches per capita. Similarly to those obtained for the two first dependent variables, we find evidence that local governance matter to explain the level of financial deepening. Regions with good governance, represented by a high degree of bureaucracy index and government index, have a higher level of financial deepening. As expected, we also find that the coefficient of the human development index is positive and significant in all the regressions.

In general, our results provide evidence that unequal financial deepening in Indonesia is significantly influenced by how well the local governments manage their regions. There are several possible explanations. First, as argued by the law and finance literature (*e.g*. La Porta et al., 1997; Levine, 1998), the quality of local government is important to ensure that legal institutions are well-imposed especially with regard to the creditor/ lender rights to stimulate banks in channeling credit. Second, bureaucratic procedure in doing business indicates to which extent the local government is capable of facilitating a favorable business climate to attract business investments. This is consistent with some cross country studies which show the positive relationship between the degree of openness and financial development (*e.g*. Herger et al., 2008; Rajan and Zingales, 2003). Moreover, it is generally known that governments with poor governance are keen on corruption and rent seeking behaviors, which are detrimental factors to business investment and public infrastructure development. Subsequently, commercial banks and other types of banks may be reluctant to establish their business in the poor governance regions which in turn impedes banking competition in the regions.

Our results also show that in the socioeconomically less developed regions, the level of financial deepening is lower than that of more developed regions. Overall, this finding is consistent with our expectations. As explained earlier, the impact of socioeconomic conditions on the level of financial deepening could be viewed from lender (banks) and borrower sides. From the lender side, it is generally accepted that lenders are much more willing to channel loans when they know more about borrowers (Djankov et al., 2007). In the socioeconomically less developed regions, reflected by high degree of poverty and low human development, banks lack incentives to release credit as the information as well as the quality of borrowers are deficient. To grant loans, banks face expensive costs in terms of information and dealing costs. Furthermore, banks have to deal with borrowers with lower quality which subsequently increases their risk. Even though banks could charge a higher risk premium to cover the higher risk, Indonesian banks generally tend to behave prudently. On the other hand, in such regions deficit spending units also tend to be reluctant to use bank loans as they perceive that the process of getting loans from banks is more complicated than the process of obtaining, for example a loan from predatory lender or a pawnshop.

Moreover, some banking regulations might have exacerbated the unequal banking development. First, the regulation on the income of bank borrowers have naturally created a barrier to financial deepening. Second, as revealed by Rosengard and Prasetyantoko (2011), the banking consolidation process which has been promoted by regulators has strengthened banking oligopoly maintaining a high intermediation cost.

Regarding control variables, we find that the level of financial deepening is lower in the conflict (politically and securitically unstable) regions than in other regions. The results confirm the finding of Roe and Siegel (2011) in a cross country research showing that political instability impedes financial development. Second, we find that credit released by commercial banks is lower in the provinces located outside Java Island even though the ratio of bank offices per capita is higher in such regions. Our results also show that there is a significant difference in financial development between existing provinces and new provinces. Interestingly, the latter have a significantly higher level of financial depth. We find that the ratio of number of bank branches per capita is positively associated with GDP per capita. In contrast, the ratio of commercial bank loans given to micro, small and medium enterprises (MSMEs) in a province to its GDP is lower in the regions with a higher ratio of GDP per capita. No difference in financial deepening is found between deficit and surplus budget provinces. Likewise, we find only little evidence of differences in financial depth between regions which produce oil or gas and their non-producer counterparts.

5.3. Robustness Checks

We perform several robustness checks. First, we use secondary school enrolment following the study of Hasan et al. (2009) as a proxy of socioeconomic conditions to replace the human development index. Contextually, the Indonesian government has also implemented a policy that the minimum education should be secondary (junior high) school[9]. The results show that provinces with a higher level of secondary school enrollment significantly have a higher level of financial depth. For all the remaining variables the results are also consistent.

Second, we run regressions by excluding the natural log of GDP per capita as it has a strong correlation with the proxies of socioeconomic conditions (human development index and poverty). With regard to our variables of interest (local governance and socioeconomic variables), our results remain unchanged.

Third, we change the proxies of financial depth to the ratio of bank loans to province's population and the ratio of bank loans to MSMEs over province's population. Again, the results show that local governance and socioeconomic conditions matter to explain cross region differences in financial deepening.

6. Conclusions

We investigate the determinants of unequal financial deepening across regions in Indonesia by considering local governance and socioeconomic conditions as the main factors. We use data of 33 provinces over the 2004-2010 period (after the decentralization policy).

[9] This policy is called nine-year compulsory education (Indonesian: *wajib belajar sembilan tahun*).

We find that local governance quality is significantly and positively associated with the importance of bank lending - and to MSMEs specifically - with regards to local GDP. Local governance quality is also positively linked with the number of bank offices per capita. Our results also show that in the socioeconomically less developed regions, as reflected by low human development and high degree of poverty, the level of financial deepening is lower than that of more developed regions. In general, even though decentralization has been implemented globally in Indonesia, regional disparity in the form of financial deepening still exists.

Our findings have some noteworthy policy implications. First, improving local governance, particularly for regions having poor governance, should be encouraged to facilitate a favorable business environment. An encouraging business climate could provide incentives for banks to expand their business more specifically in granting loans. Second, regulators have to reconsider regulations that have constrained bank lending especially the regulation on the income of bank borrowers and its strong limitations. This regulation might have improved the soundness of banks but it might also have gone too far by excluding a large number of borrowers from the formal system encouraging "predatory lending" practices in the financially less developed regions.

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Table 1: Descriptive Statistics

This table presents the descriptive statistics of variables. CRE_GDP is the ratio of credit released by commercial banks located in a province to province's GDP. SME_GDP is the ratio of commercial bank loans given to micro, small and medium enterprises in a province over province's GDP. OFF_POP is the ratio of number of bank branches per million population of province. BUREAU is the bureaucracy index, while GOVERN stands for the government index. HDI represents human development index. POVERTY is the level of poverty. LNGDPPERCAP is the natural log of province GDP per capita.

	CRE_GDP	SME_GDP	OFF_POP	BUREAU	GOVERN	HDI	POVERTY	LNGDPPERCAP
Mean	0.217	0.179	15.330	5.609	4.945	70.292	16.695	16.295
Median	0.183	0.165	12.236	5.740	4.920	70.320	14.625	16.234
Maximum	0.997	0.667	62.579	7.340	6.800	77.600	41.570	18.448
Minimum	0.028	0.041	3.535	3.880	3.530	60.600	3.180	14.901
Std. Dev.	0.152	0.104	10.561	0.838	0.851	3.294	8.625	0.719
Skewness	2.637	1.837	2.180	-0.304	0.275	-0.349	0.826	0.762
Observnation	222	213	231	231	231	231	226	231

Table 2: Descriptive Statistics of financial depth each province

No	Province	Average credit to province's GDP	Average credit to MSMEs over province's GDP	Average bank branches to million province's population
1	Jawa Barat	0.151585	0.167045	7.549934
2	Banten	0.211209	0.216435	6.09837
3	DKI Jakarta	0.804159	0.211325	54.69153
4	D.I Yogyakarta	0.233692	0.195186	13.86315
5	Jawa Tengah	0.191211	0.146325	7.713605
6	Jawa Timur	0.174687	0.113382	9.607461
7	Bengkulu	0.233627	0.237419	9.823258
8	Jambi	0.181039	0.166913	14.49752
9	Nanggroe Aceh Darussalam	0.112975	0.105513	12.7248
10	Sumatera Utara	0.277216	0.144166	11.32808
11	Sumatera Barat	0.190449	0.152634	15.40538
12	Riau	0.098391	0.071691	10.02068
13	Sumatera Selatan	0.089371	0.064844	5.442373
14	Kepulauan Riau	0.322449	0.252285	43.30654
15	Bangka Belitung	0.113382	0.08813	18.38444
16	Lampung	0.17065	0.133475	5.89149
17	Kalimantan Selatan	0.227636	0.169252	17.09068
18	Kalimantan Barat	0.176742	0.148041	11.49368
19	Kalimantan Timur	0.07343	0.049332	28.01721
20	Kalimantan Tengah	0.130586	0.097066	12.95606
21	Sulawesi Tengah	0.201794	0.18609	10.67918
22	Sulawesi Selatan	0.30837	0.243932	11.43564
23	Sulawesi Utara	0.242101	0.275376	21.77532
24	Sulawesi Barat	0.277152	0.22098	10.31237
25	Gorontalo	0.495298	0.557642	23.33381
26	Sulawesi Tenggara	0.060666	0.05699	4.1979
27	Nusa Tenggara Barat	0.148065	0.151064	7.394472
28	Bali	0.304769	0.270322	20.94691
29	Nusa Tenggara Timur	0.2221	0.217585	8.981006
30	Maluku	0.293108	0.276596	19.5568
31	Papua	0.076143	0.067278	13.15871
32	Maluku Utara	0.276154	0.262264	14.94563
33	Irian Jaya Barat	0.129386	0.100658	25.84427

Table 3: Correlation Matrix

This table presents the descriptive statistics of variables. CRE_GDP is the ratio of credit released by commercial banks located in a province to province's GDP. SME_GDP is the ratio of commercial bank loans given to micro, small and medium enterprises in a province over province's GDP. OFF_POP is the ratio of number of bank branches per million population of province. BUREAU is the bureaucracy index, while GOVERN stands for the government index. HDI represents human development index. POVERTY is the level of poverty. LNGDPPERCAP is the natural log of province GDP per capita.

	CRE_GDP	SME_GDP	OFF_POP	BUREAU	GOVERN	HDI	POVERTY	LNGDPPERCAP
CRE_GDP	1							
SME_GDP	0.637	1						
OFF_POP	0.659	0.278	1					
BUREAU	0.409	0.280	0.344	1				
GOVERN	0.311	0.063	0.318	0.696	1			
HDI	0.310	0.018	0.459	0.307	0.233	1		
POVERTY	-0.260	-0.005	-0.304	-0.335	-0.270	-0.630	1	
LNGDPPERCAP	0.125	-0.351	0.569	0.201	0.299	0.587	-0.393	1

Table 4: OLS Regressions of Bank Loan to Region's GDP

The values in parentheses are robust standard errors. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	Bank Loan/ GDP					
	1	2	3	4	5	6
Bureaucracy Index	0.057***	0.061***	0.059***			
	(0.014)	(0.016)	(0.015)			
Government Index				0.063***	0.060***	0.061***
				(0.014)	(0.015)	(0.014)
Human Development Index	0.012***			0.015***		
	(0.002)			(0.002)		
Poverty		-0.002**			-0.002***	
		(0.0009)			(0.0008)	
Conflict			-0.074***			-0.111***
			(0.017)			(0.016)
Outside Java	-0.052*	-0.059**	-0.055*	-0.041	-0.055*	-0.046
	(0.028)	(0.029)	(0.029)	(0.028)	(0.030)	(0.029)
New Province	0.044*	0.035	0.041*	0.078***	0.065***	0.074***
	(0.023)	(0.024)	(0.024)	(0.023)	(0.026)	(0.024)
Budget Deficit	0.018	0.017	0.017	0.018	0.018	0.016
	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)
Natural Log GDP Per Capita	-0.027	-0.014	0.002	-0.028	-0.019	0.004
	(0.023)	(0.023)	(0.025)	(0.022)	(0.023)	(0.026)
Oil or Gas Producer	-0.024	-0.010	-0.013	-0.047**	-0.028**	-0.032*
	(0.016)	(0.016)	(0.015)	(0.018)	(0.023)	(0.017)
Constant	-0.403	-0.230	-0.062	-0.499	0.363	-0.058
	(0.451)	(0.417)	(0.440)	(0.464)	(0.399)	(0.446)
Year dummies	Included	Included	Included	Included	Included	Included
Method	OLS	OLS	OLS	OLS	OLS	OLS
Number of Province	33	33	33	33	33	33
Number of Observations	221	221	221	221	221	221
Period	2004-2010	2004-2010	2004-2010	2004-2010	2004-2010	2004-2010
R-Squared	0.278	0.253	0.259	0.295	0.248	0.267

Table 5: OLS Regressions of Bank Loan to MSMEs over Region's GDP

The values in parentheses are robust standard errors. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	Bank Loan to MSMEs/ GDP					
	1	2	3	4	5	6
Bureaucracy Index	0.039***	0.045***	0.042***			
	(0.008)	(0.010)	(0.009)			
Government Index				0.042***	0.040***	0.040***
				(0.009)	(0.011)	(0.010)
Human Development Index	0.009***			0.011***		
	(0.001)			(0.001)		
Poverty		-0.001			-0.001*	
		(0.001)			(0.0007)	
Conflict			-0.047***			-0.073***
			(0.010)			(0.010)
Outside Java	0.010	0.003	0.006	0.018	0.004	0.011
	(0.010)	(0.010)	(0.010)	(0.012)	(0.011)	(0.011)
New Province	0.082***	0.077***	0.080***	0.104***	0.099***	0.102***
	(0.019)	(0.020)	(0.019)	(0.021)	(0.023)	(0.022)
Budget Deficit	-0.003	-0.003	-0.004	-0.004	-0.003	-0.005
	(0.014)	(0.015)	(0.015)	(0.014)	(0.015)	(0.015)
Natural Log GDP Per Capita	-0.084***	-0.071***	-0.063***	-0.090***	-0.073***	-0.060***
	(0.010)	(0.009)	(0.010)	(0.010)	(0.009)	(0.010)
Oil or Gas Producer	-0.033***	-0.022**	-0.024**	-0.048**	-0.035***	-0.037***
	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)	(0.012)
Constant	0.743***	1.140***	1.011***	0.664***	1.227***	1.003***
	(0.149)	(0.143)	(0.152)	(0.150)	(0.142)	(0.146)
Year dummies	Included	Included	Included	Included	Included	Included
Method	OLS	OLS	OLS	OLS	OLS	OLS
Number of Province	33	33	33	33	33	33
Number of Observations	212	212	212	212	212	212
Period	2004-2010	2004-2010	2004-2010	2004-2010	2004-2010	2004-2010
R-Squared	0.524	0.484	0.495	0.529	0.460	0.487

Table 6: OLS Regressions of Bank Branches to Population (Million)
The values in parentheses are robust standard errors. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	Bank Offices/ Population (million)					
	1	2	3	4	5	6
Bureaucracy Index	2.251***	2.898***	2.716***			
	(0.689)	(0.725)	(0.697)			
Government Index				3.043***	3.142***	3.066***
				(0.602)	(0.679)	(0.647)
Human Development Index	0.628***			0.787***		
	(0.127)			(0.142)		
Poverty		0.006			-0.026	
		(0.054)			(0.056)	
Conflict			-0.866			-2.702**
			(1.260)			(1.248)
Outside Java	2.556	1.948	2.116	3.360**	2.352	2.736
	(1.664)	(1.670)	(1.695)	(1.601)	(1.656)	(1.662)
New Province	7.417***	6.467***	6.938***	9.128***	8.136***	8.689***
	(1.373)	(1.471)	(1.394)	(1.254)	(1.403)	(1.326)
Budget Deficit	0.437	0.494	0.436	0.261	0.442	0.307
	(1.394)	(1.420)	(1.416)	(1.360)	(1.400)	(1.396)
Natural Log GDP Per Capita	8.151***	9.050***	9.325***	7.606***	8.813***	9.396***
	(1.235)	(1.219)	(1.248)	(1.197)	(1.248)	(1.348)
Oil or Gas Producer	-1.669	-1.067	-0.946	-2.621**	-1.958*	-1.850
	(1.028)	(1.141)	(1.120)	(1.084)	(1.154)	(1.147)
Constant	-179.08***	-152.25***	-155.95***	-184.20***	-147.28***	-157.21***
	(22.313)	(22.010)	(22.340)	(23.482)	(21.0253)	(22.612)
Year dummies	Included	Included	Included	Included	Included	Included
Method	OLS	OLS	OLS	OLS	OLS	OLS
Number of Province	33	33	33	33	33	33
Number of Observations	230	225	230	230	225	230
Period	2004-2010	2004-2010	2004-2010	2004-2010	2004-2010	2004-2010
R-Squared	0.504	0.469	0.484	0.523	0.475	0.494