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The Determinants of Government Bond Market Development in Asean+3

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Abstract: ***This study aims to demonstrate the determinants of government bond market development in ASEAN+3 countries. The data is collected from 3 non-ASEAN countries and 6 ASEAN countries. There are eight factors being considered as the size of the economy, exchange rate fluctuation, the level of financial integration, the fiscal balance, banking size, deposit and lending interest rates spread, the level of monetary freedom and the stage of country's development. The results show the positive impact of economic size, integration level and stage of development on government bond market's size. In contrast, the balance of state budget and the interest spread have significant negative influence on the development of government bond market. This paper could not find significant relationship between exchange rate variability, banking size and size of this market. The research's results are suggestion to develop government bond market in ASEAN+3 countries and for further researches in the future.***

Keywords: Determinants, government bond market, development, ASEAN+3

1. Introduction

In the integration context, the international capital source is easier to move around the world. However, some global crisis foster developing countries to grow domestic financial market due to higher risk in international market. These countries could not gain enough capital, while crisis increased the debt burdens, particularly in foreign currency. At this time, a well-developed domestic financial market is necessary for economic development. The developing countries have tried to find the independence in finance and fiscal policy via domestic market. Governments finance deficits with debt issued at the domestic market if domestic savings are high and the domestic banking and financial system is developed. The development of domestic financial market also supports to recover the economy from external shocks.

Moreover, some economies that heavily rely on the banking sector for domestic financing could be more vulnerable to a financial crisis due to the unstable banking system. Lacking of capital leads to the decrease in economy and investment process. It is a lesson from Asian crisis departing from Thailand in 1997. The Asian financial crisis of 1997 resulted to the significant decrease in the stock market and currencies of many Asian countries, including South Korea, Thailand, Malaysia, Indonesia, Singapore and Philippines... There were many reasons of this crisis such as asset bubbles, currency devaluations, high levels of foreign direct investment and heavy borrowing from banks...After crisis, the dependence on banking system for domestic financing has continued in the context of under-developed bond market.

The Government bond market is a part of the domestic debt market besides corporate bond market. This market is not only a place for Government raising fund by issuing government bond, but also a benchmark for other parts of financial market. It could be as basic foundation for corporate bond market development, contributing to reduce the reliance of firms on bank financing. The development of government bond market is necessary because of some reasons. Firstly, countries with weak economic prospect have limited ability to access international debt timely in the current financial integration. Secondly, Government could use domestic debt to cover the State budget deficit without strict conditions. Thirdly, government bonds could be issued to manage liquidity and achieve monetary policy targets, confront the global crisis (Christensen, 2005).

In fact, however, the developing countries witness the complexities of the government bond market and have to spend long time to reform this market. For details, Braun and Briones (2006) doing research on the development of government bond market showed that most of bonds are issued in developed countries while the issuance in developing countries is still limited. The authors also pointed out that the signals showing the level of bond market development are not only market size, but also investor base, debt portfolio maturity, instrument diversity, participants...(Braun and Briones, 2006). Moreover, under integration agreements, the market needs to be free without control of Governments. The interest rates are determined by the market, leading to high debt cost in developing countries. It may be barriers limiting the growth of government bond market in some countries.

The framework of ASEAN+3 cooperation was formed in 1997. Asean+3 was born deriving from the cooperation needs of regional countries to cope with the impact of the 1997 financial crisis. ASEAN+3 is developing rapidly in both width and depth in different sectors including political-security, transnational crime, economics, finance- monetary, agriculture- reforestation, energy, mining, tourism, heath care, information technology, social welfare, poverty reduction and rural development, disaster management, youth, women, information, education and other issues. Recently, ASEAN+3 financial and monetary cooperation has made steady progress and focused on the Multilateralization of the Chiang Mai Initiative (CMIM) and the Asian bond market initiative (ABMI). The Credit Guarantee Investment Mechanism (CGIF) and the ASEAN+3 Bond market Forum

(ABMF) have contributed to the development of an effective bond market in the region. Since its inception in 2003, ABMI has promoted the use of large savings and contributed to increased investment in the region.

The paper examines the factors affecting the development of Government bond market in Asean+3 region based on data collected from 9 countries. These countries are in the Asia-Pacific region with many agreements including the Asian bond market initiative to develop the regional bond market.

2. Literature Review

The development of Government bond market could be influenced by many factors. Some studies such as Bhattacharyay (2012), Eichengreen and Luengnaruemitchai (2011), Thotho (2014), Adelegan and Radzewicz-Bak (2009), Claessens, Klingebiel and Schmukler (2007) demonstrated a number of these factors.

The size of economy

It is clear that the economy size has significant impact on the development of the Government bond market. Small economies cannot afford to create a large and stable domestic government bond market due to the scale problem (Eichengreen and Luengnaruemitchai, 2011). Claessens, Klingebiel and Schmukler (2007) also demonstrated that the larger economy tends to create a developed market for bonds. It is difficult for the small-scale economy to provide the conditions for the development of Government bond market including infrastructure (World Bank, 2001). The amount of issued government bonds in the domestic market may be too small to attract potential foreign investors and institutions. Besides, in a small market, with low liquidity, bonds' price is often strongly affected by buyers and sellers participating and withdrawing from the market due to the limited number of participants. A small market also could not attract big investors and professional investment organizations (Eichengreen and Luengnaruemitchai, 2011).

The stage of development

Some economies are still poor compared with developed economies although they have high economic growth in recent years. Low level of development could lead to lack of infrastructure, institutions that support bond market development. Moreover, underdeveloped countries often have unstable investment environment, lack of investor protection regulations, full of market intervention, and poor transparence...(Eichengreen and Luengnaruemitchai (2011); Thotho (2014)).

Macro-economic conditions

Macro-economic conditions directly impact the Government bond market. A macro-economic framework including prudent and sustainable fiscal policy, stable monetary policy has important implications for the development of the market, reducing the risk compensation required by investors. It leads to the decrease in cost of capital.

The level of budget balance may directly affect the demand for government bond issuance and thereby has influence on the development of government bond market. Not all countries have demand to develop the Government bond market with the goal of raising capital because the budget does not experience a deficit in a period of time. Good budget balance is not conducive to the development of Government bond market (Eichengreen and Luengnaruemitchai, 2011). A country may not need to develop this market for the purpose of rasing capital if the state budget is in surplus. Conversely, a country in a state of budget deficit tends to raise funds through the issuance of government bonds, thereby enhance the market size. However, if governments lack ability to manage expenditures and revenues or lack clear, transparent, and sustainable loan plans, investors may suffer risks and usually require high interest.

The inflation rate is inversely related to the development of bond market because high inflation leads to the erosion of bond investment return when market interest rates rise and bond prices fall. To develop the market in the long-term, it requires a stable inflation. The currency value is influenced by the monetary policy. With a monetary policy against inflation, the price stability and country's wealth is maintained. So investments, savings, and other long-term plans will be more confidently implemented. In contrast, an inflationary policy could result in wealth decrease, price distortion, resources misallocation and business costs' increase. There is no theory of a suitable monetary policy for a free society. However, a low inflation orientation and an independent central bank are characteristics of most monetary theory. The degree of monetary freedom is positively related to the size of the Government bond market because at that time, low and stable inflation and market-oriented price could be favorable conditions for the development of Government bond market.

In addition to inflation, *the exchange rate* has an impact on government bond market in the context of financial integration, especially in the ability to attract foreign investors. Foreign investors consider both domestic bonds yields, compared to international ones and exchange rate risks in different countries to make decisions. In the case of a stable exchange rate regime, the bond market has high chance of growing significantly because foreign investors perceive low risks and decide to invest. The exchange rate fluctuation may not encourage the expand of bond market (Eichengreen and Luengnaruemitchai, 2011)

Financial sector characteristics

The development of the financial system, along with the process of financial integration could increase the quantity and quality of entities participating in Government bond market, from investors to market makers, financial intermediaries, organizations, credit rating agencies... thereby promoting Government bond market.

Banking system

The impact of the banking system may be positive or negative. A large banking system is necessary for the liquidity of bond market, contributing to develop this market (Hawkins, 2002, cited by Thotho (2014)). It is suggested that the high level of competition among banks in mobilizing

deposits and lending may lead to high probability of bond investment decisions in banking system. This is a good condition for the growth of Government bond market. However, if the banking system dominates the domestic financial system, government bonds may not be attractive enough for investors because bond issuers and banks compete in the same market (Harwood, 2000).

The level of financial integration

The relationship between financial integration and Government bond market development could be positive and negative. According to Rajan and Zingales (2003), a high degree of integration minimizes market interventions that disrupt market rules and reduce the dependence on the domestic banking system. But Adelegan and Radzewicz-Bak (2009) also suggested that low integration would be more motivated to develop the domestic government bond market for raising funds.

3. Data, Methodology and Hypothesis

3.1 Sample and data sources

Data used in the study are balanced panel data, including 9 countries in ASEAN+3. They are three non-ASEAN countries including Japan, Korea, China and 6 countries in ASEAN including Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. Data of all variables was collected over an 18-years period from 2000 to 2017. Year 2000 was a milestone that many government bond markets in ASEAN+3 started to enter the development stage. In addition, there are several countries in the sample starting the fiscal year not from January 1, such as Singapore and Japan starting the fiscal year from April 1. It does not affect the research result because a fiscal year still includes 12 months.

Data were collected from the following sources: Asiabondsonline, IMF international financial statistics, the World development indicators of the World Bank, key indicators for Asia and the Pacific, The Heritage foundation. These are reputable data sources in the world and in the region.

3.2 Methodology and Models

In order to investigate the determinants of Government bond market growth in the context of financial integration, this study uses the size of Government bond market as a dependent variable, which is calculated by the value of government bonds per GDP. The independent variables in the model include the size of the economy, exchange rate fluctuation, the degree of financial integration, the budget balance over GDP, monetary freedom, the banking size, interest rate spread and average income per capita. In which, the size of the economy and average income per capita use gross domestic product at purchasing power parity to calculate. The size of banking system is reflected in the domestic credit to GDP ratio provided by banks. The interest rate spread is the difference between the deposit interest rate and the lending interest rate. Exchange rate fluctuations for 1 year are standard deviation of the monthly exchange rate differences between a country's local currency and the US dollar. All variables are shown in table 1. These variables have been used in many previous studies such as researches of Eichengreen and Luengnaruemitchai (2011), Adelegan and Radzewicz-Bak (2009), Bhattacharyay (2012) and Thotho (2014).

In this research, we use pooled OLS, fixed effects, random effects and generalized least squares to demonstrate the relationship between dependent variable and independent variables.

The model is as follows:

$$GBMsize_{it} = \beta_o + \beta_{1t}*GDP_{it} + \beta_{2t}*EXFLUC_{it} + \beta_{3t}*KAOPEN_{it} + \beta_{4t}*FISBAL_{it} + \beta_{5t}*BANKSIZE_{it} + \beta_{6t}*SPREAD_{it} + \beta_{7t}*MONFREE_{it} + \beta_{8t}*GDPpercap_{it} + U_{it}$$

Table 1: Summarize of variables

Variables	Code	Explanation
Dependent variable The development of government bond market	GBMsize	Total amount of outstanding bonds /GDP
Independent variables Size of the economy	GDP	Gross domestic product at purchasing power parity
Exchange rate fluctuation	EXFLUC	Exchange rate fluctuation between the local currency of a country and dollar
The level of financial integration	KAOPEN	Capital account openness, measured by Chinn-Ito
Budget balance	FISBAL	The difference between state budget revenues and expenditures as a percentage of GDP
Size of banking system	BANKSIZE	Domestic credit ratio provided by banks to GDP (%)
Interest rate spread	SPREAD	Difference between deposit interest rate and lending interest rate
The degree of monetary freedom	MONFREE	The inflation policy index, which is a sub-component of the economic freedom index published by the Heritage Foundation.
The stage of development	GDPpercap	Gross domestic product per capita (purchasing power parity)

3.3 Hypotheses

The research model is used to test the following research hypotheses:

Hypothesis H_1: The size of the economy has a positive relationship with the development of Government bond market.

Hypothesis H_2: Exchange rate fluctuation has a negative relationship with the development of Government bond market.

Hypothesis H_3: The level of financial integration has positive or negative relationship with the development of Government bond market

Hypothesis H_4: The level of budget balance has a negative relationship with the size of Government bond market.

Hypothesis H_5: The size of banking system has a positive or negative relationship with the size of the Government bond market.

Hypothesis H_6: Interest rate spread has a negative correlation to the size of Government bond market.

Hypothesis H_7: The degree of monetary freedom has positive relationship with the size of Government bond market.

Hypothesis H8: The stage of country's development has a positive relationship with the size of Government bond market

4. Empirical Results

4.1 Descriptive statistics

Table 2 presents descriptive statistics about dependent and independent variables.

Table 2: Descriptive analysis

Variable	Mean	Std. Dev.	Min	Max
GBMsize	46.93747	42.0528	0.25	196.47
GDP	2424.152	4039.472	159.786	23159.11
EXFLUC	0.5234139	6.599656	-0.0182649	84.00206
KAOPEN	0.3008133	1.318977	-1.210019	2.346708
FISBAL	-1.434568	3.645661	-8.3	11.4
BANKSIZE	91.80565	39.06333	18.1557	184.7077
SPREAD	3.267855	1.451861	0.6066667	7.680833
MONFREE	78.91728	7.807057	49.4	94.3
GDPpercap	20684.13	20045.44	2058.153	93905.49

The average GBMsize (%GDP) is 46.937 while minimum value is 0.25 and maximum value is 196.47. A standard deviation of 42.052 reflects that the size of government bond markets in different countries is diversified in the region. The exchange rate fluctuation mean and standard deviation are 0.523 and 6.599 respectively, reflecting differences in exchange rate variability in the sample countries over period 2000-2017. The capital openness, which is measured by Chinn-Ito index (2006), averaged at 0.3 pointing limited open economies. Most countries in the sample have deficit budget with mean fiscal balance of -1.434. The average bank size as a percentage of GDP was 91.805% showing the dependence of most economies on banking system. Moreover, the standard deviation of 39.063 indicated high differentials in domestic credit by banks for the sampled countries. The average spread is 3.267, indicating large gap between savings and lending interest rates in these countries. The mean of GDP, the degree of monetary freedom, and GDP per capita are 2424.152, 78.917 and 20684.13 respectively, reflecting the nature of the economies being investigated during studied period.

4.2. Correlation Analysis

Table 3 shows the Pearson's correlation for all variables in this model. It is clear that the size of the economy is positively correlated to the growth of government bond market. It means that the larger the economy, the larger the government bond market. Similarly, the level of country's development has the positive effect on government bond market development. The level of financial integration, the size of banking system, the level of monetary freedom positively affect government bond market size, indicating that countries with high openness level, large banking system and free monetary policy could possess larger government bond market.

The result also shows that the fluctuation of exchange rate, fiscal balance, and interest rate spread are negative and correlation with government bond market

Table 3: Correlation of variables

	GBMsize	GDP	EXFLUC	KAOPEN	FISBAL	BANKSIZE	SPREAD	MONFREE	GDPpercap
GBMsize	1								
GDP	0.1923	1							
	0.0142								
EXFLUC	-0.0495	-0.0365	1						
	0.5314	0.6444							
KAOPEN	0.5279	-0.1866	-0.0267	1					
	0	0.0174	0.7358						
FISBAL	-0.3183	-0.1752	-0.069	0.2938	1				
	0	0.0257	0.3829	0.0001					
BANKSIZE	0.2984	0.3378	0.0397	0.0863	0.0737	1			
	0.0001	0	0.6161	0.2747	0.3511				
SPREAD	-0.5725	-0.1922	-0.0532	-0.0143	0.3708	-0.5475	1		
	0	0.0143	0.5012	0.8564	0	0			
MONFREE	0.4622	-0.0533	-0.1233	0.511	0.1619	0.3171	-0.277	1	
	0	0.5006	0.118	0	0.0396	0	0.0004		
GDPpercap	0.3866	-0.0862	-0.0581	0.7297	0.5741	0.4175	-0.0133	0.5176	1
	0	0.2753	0.4625	0	0	0	0.8669	0	

growth, but the correlation of exchange rate variability is insignificant while others are significant. Countries with high budget deficit have more developed government bond market. Moreover, the larger the gap between deposit and lending interest rates, the bigger the government bond market is.

The correlation coefficient matrix among variables also suggested that there is not strong correlation among independent variables. It means that the multicollinearity phenomenon among the variables is not serious.

4.3. Regression Results

The author conducts regression model estimation with methods of Pooled OLS, fixed effects and random effects model. The results are summarized in table 4.

Table 4: Multivariate results of determinants of Government bond market development

	OLS	Fixed effects	Random effects
GDP	0.0021536 *** (4.95)	0.0002506 (0.48)	0.0021536*** (4.95)
EXFLUC	-0.2730269 (1.13)	0.0169145 (0.11)	-0.2730269 (1.13)
KAOPEN	9.686077*** (4.7)	2.071956 (1)	9.686077*** (4.7)
FISBAL	-5.80819*** (9.14)	-0.7799422 (1.23)	-5.80819*** (9.41)
BANKSIZE	-0.2722572*** (4.15)	-0.1671855** (2.38)	-0.2722572*** (4.15)
SPREAD	-13.17825*** (8.49)	-5.704022*** (4.03)	-13.17825*** (8.49)
MONFREE	0.3965978 (1.54)	-0.7734247*** (3.64)	0.3965978 (1.54)
GDPpercap	0.0011134*** (6.4)	0.0008327*** (5.18)	0.0011134*** (6.4)
Constant	44.34475* (1.97)	122.3797*** (6.07)	44.34475** (1.97)
Observations	162	162	162
R-square	0.7868	0.3484	0.167

Note: Absolute value for t statistics in parentheses in OLS and fixed effects model
Absolute value for z statistics in parentheses in random effects model
****, ** and * indicate the significance levels at 1%, 5%, and 10% respectively.*

The results of OLS regression show that all variables excepting EXFLUC and MONFREE have influence on the growth of government bond market. While GDP, KAOPEN, and GDPpercap have a positive coefficient for the government bond market at 1% significance level, the FISBAL, BANKSIZE and SPREAD have a negative relationship. It is consistent with the hypothesis. The impact of financial integration level, fiscal balance and interest rate spread are large with coefficient beta of 9.686, -5.808, -13.178 respectively. Finally, exchange rate variability has a negative influence on government bond market, but it is not statistically significant.

This paper also used fixed effects and random effects models for estimating unobserved effects in the model. The fixed effects model eliminates time-invariant unobserved effects before estimation. The random effects model eliminates unobserved effects in the error term, which are uncorrelated with all the explanatory variables. The fixed effects model explains 34.84% of the variation in government bond market size related to independent variables while the random effects model explains 16.7%.

In order to choose between fixed effects and random effects models, the Hausman test is applied. The result shows that the fixed effects model better explained the influence of determinants on the development of Government bond market.

The results of the fixed effects model demonstrate the positive relationship between the stage of development and government bond market size at 1% significance level. Bank size, interest rate spread and the degree of monetary freedom have negative influence on the government bond market development at 1% significance level. The impact of interest rate spread is large. Other variables have no effect on the growth of Government bond market. However, when checking for heteroskedasticity and autocorrelation, the fixed effects model has these phenomena. Moreover, as results from multivariate OLS, fixed effects and random effects, some variables are not statistically significant. This paper then use panel Generalized Least Squares (GLS) to avoid heteroskedasticity and autocorrelation problems. This method was also used in researches of Eichengreen and Luengnaruemitchai (2011), Bhattacharyay (2012).

Table 5: Generalized least squares regression analysis with corrections for heteroskedasticity and first order panel specific autocorrelation

	Coefficient	z
GDP	0.001524***	5.98
EXFLUC	-0.0172309	-0.36
KAOPEN	4.583381***	4.48
FISBAL	-1.691901***	-5.93
BANKSIZE	-0.0015126	-0.05
SPREAD	-3.00399***	-5.29
MONFREE	-0.0786299	-0.7
GDPpercap	0.0007968***	8.9
Constant	37.51564***	4.25

Note: ***, ** and * indicate the significant levels at 1%, 5%, and 10% respectively

As can be seen from the regression results by the GLS method, GDP, KAOPEN and GDPpercap has a positive beta coefficient with a significance level of 1%. It means that there are positive relationship between the size of the economy, the level of financial integration and the stage of country's development and the government bond market growth. While the impact of the economy size and degree of development are insignificant with beta ratios of 0.001524 and 0.0007 respectively, the influence of openness level is greater on the Government bond market development with large coefficient beta of 4.583. The higher the level of financial integration, the more developed the Government bond market reaches.

The variables FISBAL and SPREAD has a negative beta coefficient with significance level of 1%, showing the opposite relationship between the fiscal balance, the interest rate spread and the Government bond market size. Countries with large budget deficits could have a large market of government bonds. It is consistent with the theory and research hypotheses. Furthermore, a country with the big gap of interest rates has large government bond market. It is also matched with the research hypothesis. The variables EXFLUC, BANKSIZE and MONFREE has negative beta coefficient, which shows the opposite relationship with the size of government bond market. However, these variables are not statistically significant.

5. Conclusion

This study used data of 9 countries in ASEAN+3 including 3 non-ASEAN countries and 6 countries in ASEAN, over a period from 2000-2017. Pooled OLS, fixed effects model, random effects model and GLS model are applied to demonstrate determinants affecting Government bond market development. The GLS method, that corrects

heteroskedasticity and autocorrelation problems, shows the consistent results.

The size of the economy is positively related to the size of Government bond market. This result is not only consistent with the research hypothesis proposed but also consistent with the results of previous studies such as Bhattacharyay (2012),Thotho (2014), Eichengreen and Luengnaruemitchai (2011). A developed economy creates full conditions for the development of government bond market. Therefore, a country needs to focus on boosting the economy before expanding Government bond market.

The capital account openness has a positive and strong impact on the size of Government bond market. It is similar to the given hypothesis. KAOPEN is measured by Chinn-Ito, reflecting the level of financial integration. A country with high level of integration could broaden its government bond market. Thus, a country has to implement appropriate financial integration step to take advantages, minimize disadvantages in order to develop Government bond market.
Fiscal balance has an inverse relationship with the size of the Government bond market. A country with a high budget deficit has larger government bond market compared to countries with a small budget deficit or a state budget surplus. However, a country cannot rely on the state budget deficit to develop the Government bond market. This market can develop in width to reach a certain size then focus on developing in depth.

The gap of lending rates and deposit rates negatively affect the Government bond market growth. The larger the interest rate spread, the smaller the bond market is and vice versa. This result coincides with Bhattacharyay's (2012) research. Therefore, appropriate policies for stable interest rate spread could be a solution for developing government bond market.

The stage of development has positive influence on government bond market development. It is also similar to previous researches' result. To develop the Government bond market, countries should enhance the stage of country's development. It could be good condition to grow this market. Some measures could be implemented such as increasing institutions to support financial market, enhancing legal framework, diversifying financial instruments and better information disclosure...

Although exchange rate fluctuation is not statistically significant in the model, the negative correlation shows that the stable exchange rate is beneficial to Government bond market. The Government should pursue monetary policy to ensure macro-economic stability as a basic foundation to promote the Government bond market growth.

Developing the Government bond market is important because of its economic and political benefits. This paper studies some factors affecting the Government bond market to suggest measures to develop this market. However, this study only researches on the size of the market as a development indicator, and does not research on other indicators. The development of bond market should be considered in width and in deep. It could be the limitation of this research, and also be a suggestion for further researches in the future.

References

[1] Adelegan, O. J. and Radzewicz-Bak, B. (2009) 'What Determines Bond Market Development in Sub-Saharan Africa?', *IMF Working Papers*, 9(213), p. 1. doi: 10.5089/9781451873603.001.
[2] Bhattacharyay, B. N. (2012) 'Bond Market Development in Asia: An Empirical Analysis of Major Determinants', *SSRN Electronic Journal*. doi: 10.2139/ssrn.1898047.
[3] Braun, M. and Briones, I. (2006) 'The Development of Bond Markets around the World', (February).
[4] Christensen, J. (2005) 'Domestic debt markets in sub-Saharan Africa', *IMF Staff Papers*, 52(3), pp. 518–538. doi: 10.5089/9781451846584.001.
[5] Claessens, S., Klingebiel, D. and Schmukler, S. L. (2007) 'Government bonds in domestic and foreign currency: The role of institutional and macroeconomic factors', *Review of International Economics*, 15(2), pp. 370–413. doi: 10.1111/j.1467-9396.2007.00682.x.
[6] Eichengreen, B. and Luengnaruemitchai, P. (2011) 'Why Doesn't Asia Have Bigger Bond Markets?', *SSRN Electronic Journal*. doi: 10.2139/ssrn.1009056.
[7] Harwood, A. (2000) *Building local bond markets : an Asian perspective*. Available at: http://agris.fao.org/agris-search/search.do?recordID=US2012420022.
[8] Rajan, R. and Zingales, L. (2003) 'The road to prosperity: saving capitalism from capitalists', *Transition*, 14(7–9), pp. 1–3.
[9] Thotho, L. (2014) 'KEY DETERMINANTS OF GOVERNMENT BOND By', (November).
[10] World Bank, I. (2001) *Developing Government Bond Markets, Developing Government Bond Markets*. doi: 10.1596/0-8213-4955-4.