BANK CAPITAL INFLOWS, INSTITUTIONAL DEVELOPMENT AND RISK: EVIDENCE FROM PUBLICLY - TRADED BANKS IN ASIA

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Abstract

This paper examines the relationship between bank capital inflows and financial stability. Using a sample of publicly-traded commercial banks in Asia over the 2002-2008 period, our empirical results show that higher banking inflows measured by the share of foreign liabilities in banking reduces systematic risk, but increases bank-specific risk and total risk. A deeper investigation further suggests that an increase in total risk and bank-specific risk is driven by strong institutional development. Specifically, higher foreign liabilities in banking exacerbate bank-specific risk and total risk in countries with greater economic freedom. Hence, the reinforcement of prudential regulations is necessary to overcome bank-specific risk and total risk, particularly when the countries move to a more liberal economic environment.

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I. INTRODUCTION

Despite a large number of studies examining the impact of foreign participation on bank risk, the current wave of financial globalization and crises again highlight the increasing needs for better understanding how foreign participation affects financial stability through channels other than banking ownership or penetration per se. For instance, foreign participation in banking can be through the presence of foreign managers, foreign debts, or even foreign customers that demand services from domestic banking institutions.

This paper is the first to analyze the link between foreign participation and bank stability in the Asian context through financial globalization channel by which foreign counterparts can play their role in influencing banks' behavior. In this context, we focus on the role of banks' foreign liabilities, where higher foreign liabilities in banking mean that foreign counterparts have higher incentives to monitor banks' behavior. Higher foreign liabilities can also be associated with higher technological innovation and better risk management in banking, so that banks are able to access financing from international market beforehand. However, higher foreign liabilities may induce banks to become prone to exchange rate depreciation as observed in the 1997 Asian crisis.

As the wave of financial globalization in Asian banks emerges over the last decades, foreign participation in banking can also come from foreign debts. Sahminan (2007) works on the Indonesian banking industry and shows that banks with higher ratio of foreign currency assets to foreign liabilities are less exposed to exchange rate depreciation which in turn reduces banks' insolvency risk. Our paper is close to Sahminan (2007) who examines the impact of exchange rate depreciation on bank stability, but we focus on the role of foreign liabilities in banking regardless of the exchange rate depreciation aspects. More specifically, our contribution is threefold.

First, we work on a cross-country setting and focus on the post-1997 Asian crisis period, while Sahminan (2007) focuses on the Indonesian banking industry in the pre-1997 Asian crisis period. Second, it is admitted that banks' activities are now increasingly linked to financial market and thus, contemporary banking crises are due to risks related to financial market activities. In this regard, the present paper considers various risk measures based financial market data instead of focusing on banks' balance-sheet indicators. Third, this paper augments the analysis by examining the role of institutional development. Institutional development has indeed become an important dimension in attracting foreign participation through the reinforcement of shareholders' protection and the level of international playing field[2]. In the Asian context, institutional development also played a critical role during the 1997 Asian crisis, where Furman

and Stiglitz (1998) point out that liberalized countries with weak institutional quality are the ones hardest hit by the 1997 Asian crisis.

In order to investigate the issues raised in this paper, we work on a sample of publicly-traded banks in seven Asian countries during the 2002-2008 period[3]. We choose Asian countries whose data on banking globalization is available, and that are likely to acquire a particular attention because of their capacity in attracting foreign capital during the last decade, as well as their openness in permitting foreign participation in banking. These include India, Indonesia, Hong Kong, Japan, South Korea, Thailand, and the Philippines. The rest of this paper is organized as follows. Section 2 presents the theory,section 3 describes hypotheses and econometric methodology. Section 4 discusses empirical findings and presents some robustness checks. Section 5 concludes and highlights policy implications.

II. THEORY

Regarding the link between foreign participation and bank stability, the first strand of literature focuses on the direct link with foreign entry or foreign ownership. From a broad sample of emerging economies, Demirgüc-Kunt and Detregiache (1998) find that the presence of foreign banks reduces the likelihood of banking crisis. In a similar vein, Detregiache and Gupta (2004) document that the presence of foreign banks has a stabilizing effect before and during financial crisis. Levy-Yeyati and Micco (2007) further suggest a positive relationship between foreign bank entry and bank stability in Latin America. In the emergent economies of Central and Eastern Europe, Dinger (2009) finds that the presence of foreign banks reduces the risk of aggregate liquidity shortages. Foreign banks are also shown to have better position than domestic banks without foreign participation, since foreign banks can provide modern banking activities with better technological innovation and risk management, as well as access to international financial markets (Berger et al., 2001; Bonin et al., 2005). On the contrary, some have argued that domestic banks are better than foreign banks because domestic banks are unlikely to suffer from a *home-bias* risk that exacerbates agency problems due to cultural differences and regulatory environments (Berger et al., 2001; Lensink and Naaborg, 2007).

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2 Institutional development also affects the link between financial development and economic growth, so that financial sector does not always boost economic growth. Specifically, threshold effects in the finance-growth nexus are likely to exist in developing countries, which in most cases, lack of institutional development (Augier and Soedarmono, 2011).

3 The reason why we focus on the Asian banking industry is that Asian banking has experienced substantial changes in terms of foreign participation, particularly after the 1997 Asian crisis period. This includes a rapid growth of foreign ownership in banking because of bank mergers and acquisitions (M&As), as well as an increase in foreign direct investment entering Asian banks. See Soedarmono et al. (2011a) for further discussion.

The second strand of literature is associated with the role of bank competition. Jeon et al. (2011) highlight from a sample of Asian and Latin American banks during 1997-2008that higher foreign participation in terms of bank ownership enhances competition in the banking market through spillover effects from foreign partners to domestic counterparts.However, empirical results on the implications of foreign participation through the link between bank competition and financial stability are mixed. Working on a broad set of commercial banks across developing countries over the 1999-2005 period, Ariss (2010) finds that the higher bank market power, the lower risk and the higher profit efficiency of banks, although higher market power deteriorates cost efficiency. On the other hand, Soedarmono et al (2011a) focus on the Asian banking industry and find that banks in less competitive market tend to have higher insolvency risk due to moral hazard effects.

This paper employs a set of dependent variables to assess financial stability. Specifically, we use three types of risk measure coming from financial market data. These include total risk (*TRISK*), systematic risk (*BETA*) and idiosyncratic risk or bank-specific risk (*SRISK*). To calculate these risk measures, we initially construct the standard market model as follows[4].

$$r_{i,j,t} = \alpha + \beta\, r_{j,t}^{m} + \varepsilon_{i,j,t} \tag{1}$$

where $r_{i,j,t}$ is bank i stock return at country j and at day t, while $r_{j,t}^{m}$ is the daily market returns computed on the basis of domestic market index at country j. In the meantime, $r_{i,j,t}$ and $r_{j,t}^{m}$ are calculated as follows

$$r_{i,j,t} = \log\left[\frac{p_{i,t}}{p_{i,t-1}}\right] \quad \text{and} \quad r_{i,j,t}^{m} = \log\left[\frac{p_{m(j),t}}{p_{m(j),t-1}}\right] \tag{2}$$

where $r_{i,t}$ and $r_{m(j),t}$ are daily banks' stock price and total market index, respectively. In constructing Equation (1), we impose a criterion to deal with low bank trading volume. Specifically, we eliminate banks whose trading days are less than 70% of the total number of trading days. For each year during the 2002-2008 period, moreover, Equation (1) is estimated by applying the Panel Least Squares method. Hence, we obtain Equation (1) for each bank i year by year.

TRISK is the annual standard deviation of daily bank stock returns during the 2002-2008 period, where the measure of daily bank stock returns is expressed by $r_{i,j,t}$. *BETA* is the annual

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4 The model specification follows Bautista et al (2009).

systematic risk or the beta, β, coefficient in Equation (1). Systematic risk is a risk linked to financial market activities and thus, is often referred to as market risk or non-diversifiable risk. *SRISK* is the annual bank-specific risk or idiosyncratic risk which is diversifiable through several risk managements at the bank level. *SRISK* is represented by the annual residual terms of the standard market model, ε, as presented in Equation (1).

Variable of interest in this study is the level of globalization in banking activities and the degree of economic freedom. We use country-specific data from the *International Investment Position* section of the International Financial Statistics as a proxy of banking globalization. Specifically, we use the share of international liabilities in banking sector over total international liabilities (*BLIAB*). Greater *BLIAB* is associated with higher foreign participation in banking activities and thus, representing greater financial globalization in banking. In parallel, the degree of economic freedom is assessed by the Economic Freedom index (*FREEDOM*) coming from Heritage Foundation. *FREEDOM* is a composite index of 10 indicators ranking policies in the areas of trade, government finances, government interventions, monetary policy, capital flows and foreign investment, banking and finance, wages and prices, property rights, regulation and black market activity. The index scores from 0 to 1 with higher scores indicating policies being more conducive to competition and economic openness.

Several control variables are also included in this study. First, we include the ratio of total loans to total assets (*LOAN*) to account for bank opacity. Greater *LOAN* is likely to exacerbate asymmetric information between banks and borrowers, while *LOAN* is the major source of bank risk. Furthermore, we incorporate the ratio of total deposits to total assets (*DEPO*), as bank deposits are also the major source of risk, particularly when market discipline is weak. We also incorporate the ratio of loan loss reserves to total gross loans (*LLR*) as a proxy of credit risk, where higher *LLR* is expected to increase total risk, systematic risk or bank-specific risk (Agusman et al, 2008). Following Agusmanet. al. (2008) as well, we incorporate the ratio of equity to total assets (*EQTA*) and the ratio of liquid assets to total assets (*LIQUIDITY*) to account for leverage risk andliquidity risk, respectively. Higher *EQTA* and *LIQUIDITY* are expected to enhance financial stability.

III. METHODOLOGY

There are two hypotheses tested in this paper. First, we aim to test if there is a relationship between globalization in banking and financial stability as measured by total risk, systematic risk and idiosyncratic risk. Second, we examine whether or not institutional development affects the impact of banking globalization on financial stability. Let i, j, and t be bank index, country

index, and time index, respectively, then both steps are respectively presented in the following equations.

$$RISK_{i,j,t} = \alpha + \beta_1 BLIAB_{j,t} + \beta_i \sum_{i=2}^{N} Control + \xi_{i,j,t} \tag{3}$$

$$RISK_{i,j,t} = \alpha + \beta_1 BLIAB_{j,t} + \beta_2 FREEDOM_t$$
$$+ \beta_3 BLIAB_{j,t} * FREEDOM_{j,t} + \beta_i \sum_{i=4}^{N} Control + \xi_{i,j,t} \tag{4}$$

RISK consists of *TRISK*, *BETA* and *SRISK*, while *Control* represents a set of control variables.

Initially, we calculate risk indicators coming from financial market data. We then run the regressions of banking globalization on these indicators. Moreover, we also investigate the impact of the interaction term between banking globalization and institutional development on financial stability. To estimate such relationships, we use the Fixed Effect regressions with heteroscedasticity-consistent standard errors.

In the present paper, we use bank-specific and country-specific data. For bank-specific data, we retrieve banks' financial indicators from BankScope Fitch IBCA over the 2002-2008 period. Our initial sample consists of 189 publicly-traded commercial banks in seven Asian countries. These include India, Indonesia, Hong Kong, Japan, Philippines, South Korea and Thailand. In the meantime, we retrieve banking globalization data as country-specific indicator from International Financial Statistics provided by the IMF. Other country-specific indicator such

Variables	Mean	Median	Maximum	Minimum	Std.Dev.	Obs.
Table 1. **Descriptive statistics**						
TRISK	0.024158	0.022083	0.135767	0.00037	0.01215	1181
BETA	0.832851	0.876176	1.967998	-0.28694	0.403701	1181
SRISK	0.020088	0.01783	0.134859	0.000369	0.011475	1181
BLIAB	0.191862	0.182324	0.396951	0.021616	0.111458	1323
LOAN	0.58088	0.600438	0.886473	0.032652	0.1294	1219
DEPO	0.867947	0.889310	0.970079	0.073737	0.096575	1225
LLR	0.034881	0.02017	0.80149	5.00E-05	0.05337	1135
EQTA	0.068095	0.05796	0.57868	0.00009	5.089816	1226
LIQUIDITY	0.042605	0.001	0.57	0.0001	0.101373	916
FREEDOM	0.629607	0.637	0.90	0.512	0.094772	1820

Source : Author's calculation
Note : TRISK is the indicator of total risk measured by the annual standard deviation of daily bank stock returns. BETA is the annual beta coefficient from the standard market model, in which BETA represents market risk or systematic risk. SRISK is bank-specific risk measured by the annual residual term of the standard market model. BLIAB is the aggregate share of foreign liabilities in banking over total foreign liabilities. LOAN is the ratio of total loans to total assets. DEPO is the ratio of total deposits to total assets. LLR is the ratio of loan loss reserves to total gross loan. EQTA is the ratio of total equity to total assets. LIQUIDITY is the ratio of liquid assets to total assets. FREEDOM is the Economic Freedom index retrieved from Heritage Foundation.

as institutional development comes from Heritage Foundation, where we assess institutional development by using the Economic Freedom index. In order to assess financial stability based on financial market data, we retrieve daily bank stock prices and daily total market index during 2002-2008 from Thomson Datastream International.

Before we run regressions, we impose restrictions to our dataset to deal with outliers and missing values. We exclude all values that are less than zero for *LLR*, *EQTA* and *LIQUIDITY*. In Table 1, we present the descriptive statistics of all clean variables used in this study.

IV. RESULT AND ANALYSIS

4.1. Empirical results

Table 2 shows the relationship between foreign liabilities in banking (*BLIAB*) and total risk (*TRISK*). It can be seen that higher foreign liabilities in banking tend to exacerbate total risk.

Explanatory Var.	Dependent Var. : TRISK						
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**
BLIAB	0.0129***	0.0131***	0.0135***	0.0101***	0.0081**	0.0143***	-0.3622***
	(2.083)	(2.152)	(2.215)	(2.606)	(2.142)	(3.499)	(-4.369)
LOAN		-0.0275***	-0.0258***	-0.0195	-0.0194	-0.0212	-0.0321***
		(-5.048)	(-4.643)	(-1.443)	(-1.451)	(-1.242)	(-4.421)
DEPO			-0.0125*	0.0061	-0.0148	-0.0093	-0.0126
			(-1.655)	(0.6927)	(-1.431)	(-0.7805)	(-1.179)
LLR				0.0559***	0.0562***	0.0541***	0.0505***
				(3.901)	(4.504)	(4.316)	(5.147)
EQTA					-0.0627***	-0.0667***	-0.0698***
					(-2.909)	(-2.738)	(-3.735)
LIQUIDITY						0.0161	0.0172**
						(1.565)	(2.464)
FREEDOM							-0.0354
							(-1.079)
BLIAB*FREEDOM							0.5964***
							(4.944)
Obsevation	1181	1118	1118	1043	1043	859	859
Adj R-square	0.42	0.42	0.42	0.44	0.45	0.44	0.51

Table 2.
The relationship between banking globalization, economic freedom and total

Source: Author's calculation.
Note: Dependent variable is TRISK which represents the indicator of total risk and measured by the annual standard deviation of daily bank stock returns. BLIAB is the aggregate share of foreign liabilities in banking over total foreign liabilities. LOAN is the ratio of total loans to total assets. DEPO is the ratio of total deposits to total assets. LLR is the ratio of loan loss reserves to total gross loan. EQTA is the ratio of total equity to total assets. LIQUIDITY is the ratio of liquid assets to total assets. FREEDOM is the Economic Freedom index retrieved from Heritage Foundation. Estimations are carried out using the Panel Fixed Effect regressions by considering White's heteroscedasticity-consistent standard errors. Constants are included but not reported. ***,**,* indicate significant at the 1%, 5% and 1% levels, respectively.

This finding is robust to various control variable modifications as presented in Model 1 to Model 6. Moreover, we examine how the interaction term between institutional development and foreign liabilities in banking affects total risk, as shown in Model 7. It shows that the positive impact of banks' foreign liabilities on total risk is dependent on institutional development. More precisely, only in countries with higher economic freedom, the positive relationship between banking globalization and total risk holds. This further suggests that in countries with lower economic freedom, higher foreign liabilities in banking reduce total risk.

Meanwhile, Table 3 presents the impact of banks' foreign liabilities (*BLIAB*) on systematic risk (*BETA*). By estimating different model specifications as presented in Model 1 to Model 6, it shows that banks' foreign liabilities have a stabilizing effect in terms of reducing systematic risk. But, the link between banks' foreign liabilities and systematic risk is no longer significant when we take into account the role of institutional development as shown in Model 7. Economic freedom does not seem to influence the relationship between bank globalization and systematic risk.

Table 3. The relationship between banking globalization, economic freedom and systematic risk							
Explanatory Var.	**Dependent Var. : BETA**						
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**
BLIAB	-1.984*** (-11.689)	-2.032*** (-11.924)	-2.041*** (-11.972)	-2.129*** (-12.319)	-2.163*** (-12.493)	-2.161*** (-11.786)	-3.105 (-1.335)
LOAN		-0.6573*** (-4.303)	-0.6977*** (-4.485)	-0.5690*** (-3.161)	-0.5684*** (-3.164)	-0.4779** (-2.381)	-0.4672** (-2.297)
DEPO			0.2874 (1.361)	0.1649 (0.6918)	-0.1927 (-0.6684)	-0.2190 (-0.7301)	-0.2168 (-0.7216)
LLR				-0.2086 (-0.7807)	-0.2051 (-0.7693)	-0.1372 (-0.515)	-0.0799 (-0.2903)
EQTA					-1.073** (-2.197)	-1.109** (-2.134)	-1.153** (-2.198)
LIQUIDITY						-0.1841 (-0.9408)	-0.1932 (-0.9849)
FREEDOM							-0.6407 (-0.6964)
BLIAB*FREEDOM							1.245 (0.3679)
Obsevation	1181	1118	1118	1043	1043	859	859
Adj R-square	0.61	0.61	0.61	0.62	0.62	0.64	0.64

Source: Author's calculation.
Note: Dependent variable is BETA which represents the indicator of systematic risk and measured by the annual beta coefficient of the standard market model. BLIAB is the aggregate share of foreign liabilities in banking over total foreign liabilities. LOAN is the ratio of total loans to total assets. DEPO is the ratio of total deposits to total assets. LLR is the ratio of loan loss reserves to total gross loan. EQTA is the ratio of total equity to total assets. LIQUIDITY is the ratio of liquid assets to total assets. FREEDOM is the Economic Freedom index retrieved from Heritage Foundation. Estimations are carried out using the Panel Fixed Effect regressions by considering White's heteroscedasticity-consistent standard errors. Constants are included but not reported. ***,**,* indicate significant at the 1%, 5% and 1% levels, respectively.

In terms of the link between banks' foreign liabilities (*BLIAB*) and bank-specific risk (*SRISK*), Table 4 presents our empirical findings for a number of model specifications. Higher foreign liabilities in banking increase idiosyncratic risk, but again this relationship is dependent on economic freedom. Only in countries with greater economic freedom, higher foreign liabilities in banking worsen bank-specific risk. This may be due to the fact that under higher economic freedom, foreign liabilities held by banks may be excessive, as banks are free to raise funding from international market. Hence, the countries with greater economic freedom can be more exposed to exchange rate depreciation that in turn exacerbates bank-specific risk.

Explanatory Var.	Dependent Var. : SRISK						
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**
BLIAB	0.0221***	0.0212***	0.0216***	0.0174***	0.0157***	0.0201***	-0.1618**
	(3.969)	(3.945)	(4.019)	(3.204)	(2.896)	(3.228)	(-2.098)
LOAN		-0.0362***	-0.0344***	-0.0295***	-0.0294***	-0.0331***	-0.0386***
		(-7.515)	(-7.027)	(-5.197)	(-5.227)	(-4.876)	(-5.719)
DEPO			-0.0125	0.0054	-0.0128	-0.0082	-0.0099
			(-1.885)	(0.7135)	(-1.416)	(-0.810)	(-0.9901)
LLR				0.0546***	0.0548***	0.0524***	0.0503***
				(6.489)	(6.555)	(5.817)	(5.519)
EQTA					-0.0545***	-0.0589***	-0.0602***
					(-3.558)	(-3.347)	(-3.462)
LIQUIDITY						0.0131**	0.0136**
						(1.969)	(2.099)
FREEDOM							-0.0141
							(-0.4608)
BLIAB*FREEDOM							0.2894**
							(2.579)
Obsevation	1181	1118	1118	1043	1043	859	859
Adj R-square	0.47	0.49	0.49	0.52	0.52	0.51	0.53

Table 4. The relationship between banking globalization, economic freedom and idiosyncratic risk (bank-specific risk)

Source: Author's calculation.
Note: Dependent variable is SRISK which represents the indicator of idiosyncratic risk and measured by the annual residual term of the standard market model. BLIAB is the aggregate share of foreign liabilities in banking over total foreign liabilities. LOAN is the ratio of total loans to total assets. DEPO is the ratio of total deposits to total assets. LLR is the ratio of loan loss reserves to total gross loan. EQTA is the ratio of total equity to total assets. LIQUIDITY is the ratio of liquid assets to total assets. FREEDOM is the Economic Freedom index retrieved from Heritage Foundation. Estimations are carried out using the Panel Fixed Effect regressions by considering White's heteroscedasticity-consistent standard errors. Constants are included but not reported. ***,**,* indicate significant at the 1%, 5% and 1% levels, respectively.

This finding is somehow consistent to Sahminan (2007), where there is a positive relationship between exchange rate depreciation and insolvency risk for banks with higher share of foreign liabilities. To the extent that only idiosyncratic risk plays a significant role in

capturing bank instability in Asia (Agusman et al, 2008), our findings are also consistent with Agusman et al (2008). Specifically, systematic risk in the present paper is not an important source of instability due to higher banks' foreign liabilities, regardless of the level of countries' institutional development. Overall, the empirical findings suggest that investors in countries with higher economic freedom are more concerned with total risk and bank-specific risk in this regard.

With regards to control variables, higher banks' loan portfolio (*LOAN*) is associated with lower total risk, lower systematic risk and lower bank-specific risk. This suggests that bank lending activities are not source of instability. This result contradicts with the nature of bank loan portfolio which is opaque. Presumably, Asian banks suffer from a managerial self-interest problem in which managers in banks with higher asymmetric information might be driving banks to become safer by holding less risky loan portfolios (Bris and Cantale, 2004; Soedarmono et al, 2011b). Bank deposits (*DEPO*) also does not seem to be the source of instability. In line with Agusman et al (2008), higher loan loss reserves ratio (*LLR*) is associated with higher total risk and bank-specific risk. Meanwhile, the link between bank capitalization (*EQTA*) and *RISK* fulfills our expected sign. Higher bank capital ratio reduces total risk, systematic risk and bank-specific risk.

4.2. Robustness checks

In order to further ensure for robustness linked to variable omission issues, we also perform some sensitivity analyses[5]. First, it is shown that Model 6 and 7 from Table 2, 3 and 4 suffer from observation loss when we incorporate *LIQUDITY* as control variable. To ensure that the empirical results obtained are not due to observation bias, we exclude *LIQUDITY* and re-estimate Model 6 and 7 in all three cases. However, this consideration does not change our empirical results discussed in Section 4.1. Second, due to the fact that our bank sample comes from countries with different level of macroeconomic environment, we also consider the influence of economic development and inflation rate to account for this dimension. In other words, we include the real gross domestic product (*GDP*) and inflation rate (*INF*) as control variable. On the whole, our empirical results are not altered with regards to the link between banking globalization, economic freedom and financial stability as measured by total risk, systematic risk and idiosyncratic risk.

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5 The results are not presented in the paper, but are available upon request.

V. CONCLUSION

In the aftermath of the 1997 Asian crisis, financial globalization in Asian banking in the form of FDI and foreign ownership, as well as a rapid growth of foreign capital inflows entering Asian countries due to the 2008 credit crisis and the 2010 European debt crisis, urgently require better understanding whether or not greater foreign participations enhance financial stability. Nowadays, such an increasing trend of foreign participations also show that Asian countries are already in a better position in terms of institutional development, so that they have been successful in attracting foreign participations. However, there is no attempt to investigate the impact of foreign participations and institutional development on financial stability in the Asian context.

This paper attempts to fulfill such a gap by assessing the impact of foreign participation on financial stability through channel other than foreign participation commonly used in the previous literature, such as bank foreign ownership, foreign bank entry, or bank competition. In the present paper, we consider the indicator of foreign participation measured by the aggregate share of foreign liabilities in banking over total foreign liabilities. Using a sample of publicly-traded commercial banks in seven Asian countries during 2002-2008, the empirical results from the Fixed Effect regressions show that higher foreign liabilities in banking reduces systematic risk, but exacerbates bank-specific risk and total risk. However, we further shows that such findings only hold for countries with greater economic freedom, suggesting the needs for enhancing prudential regulations when banking in a more liberal environment are more globalized in terms of their abilities to raise financing from international financial market. To this end, bank-specific risk and total risk can be reduced, bank failure can be prevented, and the systemic risk of bank failure can be avoided.

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