

## **Chapter Three**

# **The Financial Liberalization under the WTO and Economic Growth**

### **3.1 Introduction**

The WTO schedules of commitments are legally binding for all members, and can be judged as the minimum limit of trade policy, which is believed to be stable and transparent, since strict dispute settlement procedures will be initiated whenever a certain member's benefit is hindered from disobedience of the schedules of commitments by a certain member. Tamirisa et al. (2000), therefore, suggest that the commitments can be viewed as an approach of signaling a country's seriousness to potential foreign investors. Furthermore, Valckx (2004) argues that a low level of commitments in financial services would leave international financial service suppliers with a large number of uncertainty, thus international financial services suppliers may postpone their investment until uncertainty is diminished through clear and high level of commitments. Also, Valckx (2004) contends that financial liberalization may be beneficial through obtaining access to a larger pool of international liquidities and also lower and more stable prices of financial products and services.

In sectors like financial, transport, and communication services, production and consumption of services generally are accomplished simultaneously, implying that supplier must be close to demander, and then it is required that factors of production such as capital and labor need to move to the territory of the consumer. In addition, impediments to entry in these services sectors are preserved not only against foreign providers but also against new domestic providers, and hence liberalization can contribute to enhanced competition from domestic and foreign providers. Mattoo, Rathindran, and Subramanian (2006) conclude that the growth impact of services liberalization stems from above two idiosyncratic characteristics, that

is, greater foreign factor participation and increased competition together imply a large scale of activity, and thus greater scope for generating the growth-enhancing effect.

In fact, there is some linkage between liberalization of trade in services and trade in goods, and the former may help the latter. Deardorff (1985) argues that the fundamentals of trade in services are really no distinguishing from trade in goods, and only the difficulties of estimating and observing trade in services make it particular. Notwithstanding, Deardorff (2001) suggests that many services play a crucial role in the international trade of products other than themselves, including both goods and other services. International trade in goods requires inputs from several services industries, namely transportation, insurance, and financial services, and restrictions on services across borders would add costs and barriers to international trade. As a result, liberalizing trade in services could also facilitate trade in goods, providing more benefits than one might expect from analysis of the services trade simply. Mattoo, Rathindran, and Subramanian (2006) propose that trade in services intrinsically differs from trade in goods in that many services, for example, financial, transport, and communication services, are inputs into production. Goods liberalization, therefore, in the absence of services liberalization could bring about negative effective protection for goods, spotlighting the need for the latter to keep pace with the former.

Unlike previous literatures, which concentrate on the effect of threefold liberalization (trade, financial, and equity) on growth, the purpose of this chapter focus exclusively on the connection between economic growth and our newly constructed financial liberalization index under the WTO. Our empirical work is motivated by Eschenbach, Francois, and Schuknecht (2000) who examine the relation between banking sectors openness, competition in the banking sectors, and its overall contribution to economic growth. Since more liberal banking industries are more competitive, and more competitive banking industries are strongly correlated with higher growth rates. Hence, through the pro-competitive effects, liberalization of financial services trade may augment growth rates. Eschenbach, Francois, and Schuknecht's (2000)

result suggests that moving from a closed to a relatively open banking services trade regime is correlated with significant pro-competitive pressures, and ultimately with large differences in growth rates.

The reminder of this chapter proceeds as follows. Section 3.2 introduces and explains the methodology employed in this section. Section 3.3 provides the description of the data and basic statistics. Finally, Section 3.4 details the empirical results.

### 3.2 Econometric model

This section mainly specifies the relationship between financial liberalization, which is proxied by our estimated liberalization of financial services trade, and macroeconomic performance, which is measured in terms of the average growth rate of per capita GDP, over the two periods 1994-2000 and 2001-2006, respectively. By employing a similar model to that in Eschenbach, Francois, and Schuknecht (2000) who find a strong positive connection between banking sector competition and banking liberalization, which is the estimation of trade protection for banking services based on Hoekman (1995, 1996), and between economic growth and banking sector competition, our model is as follows,

$$\begin{aligned}
 PCGDPGR_{it} = & a_0 + a_1 LIBERALIZATION_{it} + a_2 CONCENTRATION_{it} \\
 & + a_3 CREDIT_{it} + a_4 TRADE_{it} + a_5 STDINFLA_{it} \\
 & + a_6 PCGDP90_i + a_7 SECOND90_i + a_8 INSTITUTION_{it} \\
 & + a_9 INVESTMENT_{it} + \varepsilon_{it},
 \end{aligned} \tag{3-1}$$

$$CONCENTRATION_{it} = b_0 + b_1 LIBERALIZATION_{it} + b_2 SIZE_{it} + v_{it}, \tag{3-2}$$

$$a_1 = c_0 + c_1 GOVERNANCE + c_2 REGION, \tag{3-3}$$

where  $i$  is the country, and  $t$  is time period, which denotes the negotiations on trade in services under the WTO over the period 1994-2000 and 2001-2006. The full sample consists of ninety-five countries, but different availability of data source holds back the use of full sample. The maximum feasible sample is sixty-eight to seventy-one countries depended on the variables contained in

the regression.

The dependent variable, *PCGDPGR*, is proxied by per capita GDP growth rate. The financial liberalization index, *LIBERALIZATION*, is proxied by the liberalization index of banking services and financial services, *COMMIT\_BANK* and *COMMIT\_FIN*, which are calculated and described in the Chapter Two. Beck, Demirgüç-Kunt, and Levine (2000) suggest that a highly concentrated banking industry might lead to lack of competitive pressure to attract savings and channel them effectively to investors. Bikker and Haaf (2002) investigate the relationship between competitive condition and concentration in the banking structure, where competition is measured using Panzar-Rosse approach. Their result confirm that a few large banks can restrict competition and that a multitude of fringe competitors is unable to bring about competition, providing support for the conventional view that concentration detracts competitiveness. Accordingly, we employ *CONCENTRATION*, to proxy the measurement of the degree of competition in banking industry,<sup>18</sup> which is defined as the ratio of the three largest bank's assets to total banking sector assets. As discussed by Francois and Schuknecht (1999), larger markets can imply more scope for competition, particularly if scale economies are present. We use *SIZE* as a proxy, which is measured by GDP, and scaled by world's GDP.

Other control variables in our model are similar to those reported in Eschenbach, Francois, and Schuknecht (2000), Levine, Loayza, and Beck (2000), and Shen and Lee (2006). The role of financial development is proxied by *CREDIT*, which is the ratio of private credit to total credit. Trade openness is proxied by *TRADE*, which is the sum of exports and imports divided by GDP. *STDINFLA*, which denotes the volatility of the macroeconomic environment, is the standard deviation of inflation rate. *PCGDP90*, which is the proxy for the initial endowment, is the per capita GDP in 1990.

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<sup>18</sup> The concentration ratio is an outcome-based variable, and, moreover, a misleading indicator of the level of competition in the banking system because a concentrated market for banking services can still be contestable. A large number of developed countries such as Canada and many European countries have banking systems characterized by a small number of banks, but still produce competitive outcomes.

*SECOND90*, which is the proxy for initial human capital, is the primary school enrollment rate and secondary school enrollment rate in 1990. *INVESTMENT* is gross capital formation divided by GDP.

There are two vectors of conditional variables in Equation (3-3). The first vector of variables is **GOVERNANCE**, which contains five government governance and regulation variables. The first two variables, *SUPERVISION* and *CAPITALREGU*, measure the condition of banking regulation. First, official supervisory power, *SUPERVISION*, captures whether the supervisory authorities have the authority to take specific actions to prevent and correct banking problems. The variable ranges from 0 to 14, with a higher value indicating more power. Second, capital regulatory index, *CAPITALREGU*, captures whether there are explicit regulatory requirements regarding the amount of capital that a bank must have, whether regulatory capital can include assets, as well as whether regulatory capital are verified by the regulatory or supervisory authorities. The variable ranges from 0 to 10, with a higher value indicating greater stringency.

The next two variables, *GOVEFF* and *REGUQUAL*, are the proxies for government governance. First, government effectiveness, *GOVEFF*, measures the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. The indicator lies between -2.5 and 2.5, with a higher value corresponding to better governance. Next, regulatory quality, *REGUQUAL*, measures the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. The indicator lies between -2.5 and 2.5, with a higher value corresponding to better governance.

Last, *INSTITUTION*, which denotes the institutional environment quality, is composed of three variables, corruption, law and order, and bureaucracy quality. Corruption is an assessment of corruption within the political system, including financial corruption in the form of demands for special payments and bribes, as well as actual or potential corruption in the form of excessive

patronage, nepotism, job reservations, “favor-for-favors”, secret party funding, and suspiciously close ties between politics and business. The variable ranges from 0 to 6, with a higher value indicating lower political risk. Law and order is an assessment both of the strength and impartiality of the legal system, as well as the popular observance of the law. The variable ranges from 0 to 6, with a higher value indicating lower political risk. Bureaucracy quality measures the extent to which the bureaucracy has the strength and expertise to govern a country. The variable ranges from 0 to 4, with a higher value indicating lower political risk.

The second set **REGION** comprises three regional dummies, *EASIA*, *LATIN*, and *SSAFRICA*, where *EASIA* is a dummy variable and equal to 1 if it is an East Asian and Pacific country and zero otherwise. The definitions of *LATIN* and *SSAFRICA* are similar to that of *EASIA* but denote a Latin American and Caribbean country and Sub-Saharan African country, respectively.

When Equation (3-1) and Equation (3-2) are considered, we refer to them as the benchmark model, but when Equation (3-1) to Equation (3-3) are simultaneously considered, we refer to them as the extended model. We investigate the direct and indirect linkages between our assessed financial liberalization index and economic growth. Our hypothesis center around the coefficients  $a_1$ ,  $a_2$ , and  $b_1$ . If there is a direct impact, *LIBERALIZATION* in Equation (3-1) will have a positive effect on growth and  $a_1$  is significantly positive. If there is an indirect impact, *LIBERALIZATION* in Equation (3-2) should have a negative effect on *CONCENTRATION*, and *CONCENTRATION* in Equation (3-1) also has a negative effect on growth. These suggest that  $b_1$  and  $a_2$  are significantly negative.

In contrast to the benchmark model, where the impact of *LIBERALIZATION* on growth is constant, the extended model explores whether or not the impact of financial liberalization on growth depends on conditional variables by adding one type of interaction term, that is, the interaction between the two sets of conditional variables, **GOVERNANCE**

and **REGION**, and our computed financial liberalization index, *LIBERALIZATION*. The focus is the extent to which and the kinds of conditions under which financial liberalization under the WTO contributes to the process of economic growth. Accordingly, we ask the following questions: Is the nexus between financial liberalization and growth affected by governance? And is there regional effect, that is, would this nexus be different in different regions? Our hypothesis center around the coefficients  $c_0$ ,  $c_1$ , and  $c_2$ . If  $c_0 > 0$ ,  $c_1 > 0$ , and  $c_2 > 0$ , the financial liberalization has a positive impact on economic growth, and good governance and regional dummy favorably affect that positive impact respectively. If  $c_0 > 0$ ,  $c_1 < 0$ , and  $c_2 < 0$ , the financial liberalization has a positive impact on economic growth, and good governance and regional dummy adversely affect that positive impact respectively.

### 3.3 Descriptions and sources of data

The sample contains the two periods, 1994-2000 and 2001-2006, and sixty-eight to seventy-one countries are used, depending on the variables comprised in the regression. The dependent variable, *PCGDPGR*, financial development variable, *CREDIT*, macro variables, *TRADE*, *STDINFLA*, *PCGDP90*, *SECOND90*, *INVESTMENT*, and *SIZE*, and geographic regions, *EASIA*, *LATIN*, and *SSAFRICA* are primarily taken from *World Development Indicators* (WDI) published by World Bank. The financial liberalization index, *COMMIT\_BANK* and *COMMIT\_FIN*, are constructed and calculated by us. The banking industry competition variable, *CONCENTRATION*, is taken from Beck, Demirgüç-Kunt, and Levine (2000).<sup>19</sup> The institutional environment quality variable, *INSTITUTION*, is taken from *International Country Risk Guide* (ICRG) published by Political Risk Services. The banking regulation variables, *SUPERVISION* and *CAPITALREGU*, are taken from Barth, Caprio,

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<sup>19</sup> They compute the concentration ratio using income statements and balance sheet data of commercial banks from the BankScope Database compiled by Fitch-IBCA.

and Levine (2006). The government governance variables, *GOVEFF* and *REGUQUAL*, are taken from Kaufmann, Kraay, and Mastruzzi (2005). See Table 3-1 for the definitions and sources of the variables.

Our full sample encompasses 15 countries in East Asia and Pacific, 33 countries in Europe and Central Asia, 28 countries in Latin America and Caribbean, 10 countries in Middle East and North Africa, 2 countries in North America, 3 countries in South Asia, and 4 countries in Sub-Saharan Africa. See Table 2-1 for detailed classification of countries. By the classification of income group, our sample encompasses 24 high income OECD countries, 13 high income non-OECD countries, 26 upper-middle income countries, 28 low-middle income countries, and 4 low income countries. See Table 2-2 for detailed classification of countries. Table 3-2 provides the summary statistics on the dependent variable and the eighteen explanatory variables over the two periods.

Table 3-3 reports the average of our dependent variable and our sixteen explanatory variables for each of the ninety-five countries over 1994-2006. The dependent variable, *PCGDPGR*, is presented in the first column. The highest growth rate of per capita GDP is found in China (8.119%), followed by Qatar (7.824%) and Albania (6.780%). The lowest rate is found in United Arab Emirates (-0.844%), followed by Paraguay (-0.652%) and Kenya (-0.102%).

The ratio of three largest banks' assets to total assets, *CONCENTRATION*, is presented in column 2. Brunei, Guyana, and Iceland are 100%, while Luxembourg (25.931%), United States (30.133%), and Taiwan (32.107%) have the lowest ratios. The country size (*SIZE*) varies considerably across countries, as shown in column 3. The three largest countries are United States (30.457%), Japan (15.515%), and Germany (6.020%), in contrast to the fourth smallest ratios (0.001%) in Dominica, Grenada, Saint Kitts and Nevis, and Saint Vincent and the Grenadines.

The ratio of credit to the private sector to total credit, *CREDIT*, is illustrated in column 4 of Table 3-3. The three highest ratios are found in El Salvador (780.861%), United States (260.161%), and Bahrain (173.668%),



whereas the three lowest are in Albania (11.380%), Nicaragua (25.265%), and Greece (47.987%). With regard to macro variables, these are reported in column 5-9. Trade openness (*TRADE*) differs considerably across countries. The highest ratio is Singapore (339.966%), followed by Hong Kong (288.646%), and Luxembourg (247.193%), whereas the three lowest ratios are found in Japan (19.386%), Brazil (22.729%), and United States (23.906%). The standard deviation of inflation rate (*STDINFLA*) also changes substantially, where the three highest are found in Brazil (595.635), Bulgaria (299.417), and Suriname (121.311). By contrast, the three lowest are in Panama (0.419), Denmark (0.430), and Switzerland (0.465). In column 7, initial per capita GDP (*PCGDP90*), it is noted that Japan (33,252), Switzerland (33,039), and Luxembourg (30,061) are the three highest countries, whereas India (316), China (364), and Kenya (379) are the three lowest. In column 8, initial human capital (*SECOND90*), it is noted that the three highest are Netherlands (221.898%), Finland (215.225%), and Spain (212.680%). In contrast with those ratios, the three lowest are Morocco (100.712%), El Salvador (107.536%), and Kenya (118.305%). The investment ratio (*INVESTMENT*) differs little across countries, ranging from 45.153 % (Saint Kitts and Nevis) to 7.643% (Cuba).

In relation to governance and regulation variables, these are presented in column 10-14 of Table 3-3. The condition of institutional environment (*INSTITUTION*) ranges from 15.951 (Finland) to 5.985 (Honduras). Official supervisory power (*SUPERVISION*) is revealed in column 11, ranging from 14 to 4. Capital regulatory index (*CAPITALREGU*) is shown in column 12, ranging from 9 to 1. Government effectiveness (*GOVEFF*) ranges from 2.434 (Singapore) to -1.077 (Paraguay). Regulatory quality (*REGUQUAL*) ranges from 2.006 (Singapore) to -1.265 (Cuba).

Table 3-4 reports the correlation matrix of the explanatory variables. As shown, the highest correlation coefficient is 0.924 between *COMMIT\_BANK* and *COMMIT\_FIN*, whereas the lowest is -0.0004 between *COMMIT\_BANK* and *EASIA*. The remaining correlation coefficients are around 0.004 to 0.920.

### 3.4 Empirical results

Table 3-5 presents the estimated results of the first equation for our model by using the two-stage least squares (TSLS), where the second stage adopts the weighted least squares (WLS).<sup>20</sup> Table 3-6 illustrates the estimated results of the second equation. The TSLS procedure is applied to remove the endogenous effects so as to yield consistent estimates. The WLS is employed to take into account the heteroskedasticity problem. The weights of the WLS are the *INSTITUTION* and residual squared, but only the former is reported.

The estimated results are reported in Table 3-5 and Table 3-6 respectively. The specification 1 principally explores the direct and indirect relationship between the liberalization of banking services trade and economic growth. The coefficient of our banking liberalization variable, *COMMIT\_BANK*, in Equation (3-1) is insignificantly positive, suggesting that a country which commits to more openness in banking services trade does not have higher growth of per capita GDP. It seems that we do not detect a direct effect on economic growth. The coefficient of *COMMIT\_BANK* in Equation (3-2) is significantly negative, implying that higher commitments level in banking services can decrease the concentration ratio of the banking sector. This may be because once the restrictions and regulations of the banking industry relieve, the establishment of new banks becomes more common, which then can lessen the concentration ratio. The coefficient of our measure of banking industry competition, *CONCENTRATION*, in Equation (3-1) is significantly negative, indicating that more competition in banking industries can stimulate economic growth. This should not be surprising because Demirgüç-Kunt and Levine (2001) also find that the correlation coefficient between the concentration ratio and per capita GDP is almost zero. There, therefore, may be an indirect linkage between more liberal commitments in banking services trade and higher growth rate. That is, higher levels of liberalization in banking

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<sup>20</sup> Our TSLS approach uses all exogenous variables to first predict the *CONCENTRATION*. The resulting predicted variables secondly replace the actual variables. The WLS simply uses the variable *INSTITUTION* as the weight to minimize the effect of the heteroskedasticity.

services can increase competition of banking sectors, and more competitive banking industries can enhance growth rate of per capita GDP.

The specification 2 is analogous to the specification 1 but does not consider the direct effect by taking the variable *COMMIT\_BANK* out of Equation (3-1). Thus, only the indirect connection between our evaluated liberalization index of banking services and economic growth is examined, whereas the impacts related to liberalization of banking services trade are then subsumed into the variable *CONCENTRATION*. The coefficient of *COMMIT\_BANK* in Equation (3-2) is equal to -22.805 and is significant. Besides, the coefficient of *CONCENTRATION* in Equation (3-1) is equal to -0.026 and is significant. The implication there is that we do find an indirect relation that liberalizing the banking services trade decreases the concentration ratio, which then increases growth rate of per capita GDP.

The specification 3 is parallel to the specification 1, but the variable *COMMIT\_BANK* is replaced by the variable *COMMIT\_FIN* to take into account the impact of the overall financial liberalization. Therefore, the direct and indirect relationship between the liberalization of financial services trade and economic growth is investigated. The coefficient of *COMMIT\_FIN* in Equation (3-2) is insignificantly negative, suggesting that a country which commits to more liberal in financial services trade does not decrease the concentration ratio of the banking sector. It seems that we do not detect an indirect effect on economic growth. When the square of *COMMIT\_FIN* is considered, the estimated coefficients of *COMMIT\_FIN* and *COMMIT\_FIN*<sup>2</sup> in Equation (3-1) are -4.739 and 4.972, respectively. Thus, the influence of overall liberalization of financial services trade, which consists of the insurance, banking, and other financial services, on growth of per capita GDP takes the form of a U-shaped curve. That is, financial liberalization first decreases economic growth and then increases it. As countries start to agree on higher commitments levels in financial services sector, the burden and costs raised by short-run adjustments from the industries decrease growth rate initially. When more and more liberalization processes and measures are introduced, however, competition will bring about long-run benefits and will

raise economic growth eventually.

The estimated result of the extended model, which takes account of the direct impact of *COMMIT\_BANK* on growth rate to be influenced by the two sets of variables, **GOVERNANCE** and **REGION**, is displayed in the fourth and sixth column of Table 3-5 and Table 3-6. The coefficient of *COMMIT\_BANK* in Equation (3-1) is significantly negative, and then the coefficients of *CONCENTRATION* in Equation (3-2) are insignificantly negative. It appears that we do not find an indirect impact on growth rate. The estimated coefficients of the liberalization variable, *COMMIT\_BANK*, in Equation (3-6) are significantly positive, reflecting that greater degree of liberalization in banking sector can augment economic growth. Hence, there may be a direct linkage between higher level of commitments in banking services trade and higher economic growth.

As described in Table 3-5, the coefficient of the interaction variable, *COMMIT\_BANK*×*SUPERVISION* are significantly positive for two out of three specifications. This may imply that more official supervisory power can reinforce the positive effect banking liberalization on growth. The coefficients of *COMMIT\_BANK*×*GOVEFF* are also significantly positive for two out of three specifications, meaning that good government effectiveness can intensify the positive effect of banking liberalization on growth. To our surprise, though, the coefficients of *COMMIT\_BANK*×*CAPITALREGU* and *COMMIT\_BANK*×*INSTITUTION* are found overwhelmingly significantly negative, both of two are relatively small in magnitude. Accordingly, the stringency of the requirements of capital regulations and an increase in institutional environment quality may mitigate the positive impacts of banking liberalization on growth. Because the coefficients of *COMMIT\_BANK* are much larger (7.750, 7.843, and 7.010) than those of the interaction variable *COMMIT\_BANK*×*CAPITALREGU* (-0.424, -0.337, and -0.374) and *COMMIT\_BANK*×*INSITUTION* (-0.707, -0.702, and -0.662) for three specifications, the reduced effects are small, except for large *CAPITALREGU*

and *INSITUTION*.<sup>21</sup>

When the regional effect is considered, the coefficients of the interaction variables between *COMMIT\_BANK* and the three regional dummies, *EASIA*, *LATIN*, and *SSAFRICA*, are overwhelmingly negative (-1.094, -2.356, and -0.988, respectively). However, only the first two are statistically significant. Thus, liberalization of banking services trade indeed increases economic growth, but this positive effect is alleviated only when it is implemented in East Asian and Pacific, and Latin American and Caribbean countries.

The controlled variables in Equation (3-1) and Equation (3-2) emerge with the expected sign as revealed in Table 3-5 and Table 3-6, though not always with significant coefficients. The most robust variables in this regard are the initial per capita GDP, *PCGDP90*, which is overwhelmingly significantly negative, indicating that the higher the initial income, the lower the growth rate. This is consistent with the income convergence theory (Barro and Sala-i-Martin, 2004). We also find significant evidence that countries with higher initial human capital have faster growth than the initially lower ones.

The coefficients of *INSTITUTION*, which is the indicator of the general conditions regarding corruption, law and order, and bureaucratic quality, appear to be significantly positive in all specifications, suggesting that good government governance can enhance economic growth. The investment ratio evidently has a positive effect on growth. The coefficients of *CREDIT* are statistically insignificant, which is partly similar to the findings in Shen and Lee (2006).<sup>22</sup> The coefficients of *SIZE* are overwhelmingly significantly negative, implying that smaller countries are correlated with greater degrees of concentration ratio.

To sum up, we provide empirical evidences that there is a positive pattern linking banking sector competition and our assessment of banking liberalization under the WTO, and between economic growth and banking

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<sup>21</sup> This negative effect may be due to the short-run pain and long-run gain as suggested by Kaminsky and Schmukler (2003).

<sup>22</sup> The coefficients of *CREDIT* in their regression are either insignificant or negative.

sector competition. Hence, through pro-competitive effects, liberalization of banking services trade may enhance growth rates. This positive effect of banking liberalization on growth is reinforced when a government has more supervisory power and is more effective. This positive impact, however, is assuaged when there are more stringent requirements regarding capital regulations and higher level of institutional environment quality. This positive effect then is palliated when the liberalization is implemented in East Asian and Pacific, and Latin American and Caribbean countries. Furthermore, we discover that the relationship between economic growth and overall liberalization of financial services trade is better described as the form of a U-shaped curve.

Table 3-1 Summary of Variables, Descriptions, and Data Sources

Variable Name	Description	Source
PCGDPGR	Growth rate of per capita GDP.	WDI and IFS
COMMIT_BANK	The liberalization index of banking services calculated from each WTO member's schedules of commitments in financial services (excluding insurance).	Constructed by us
COMMIT_FIN	The liberalization index of financial services calculated from each WTO member's schedules of commitments in financial services (including insurance).	Constructed by us
CONCENTRATION SIZE	Assets of three largest banks as a share of total assets of all commercial banks.	BDL
CREDIT	Total value of GDP as a share of world's GDP.	WDI and IFS
TRADE	Credit to the private sector as a share of total credit.	WDI and IFS
STDINFLA	Sum of exports and imports of goods and services as a share of GDP.	WDI and IFS
PCGDP90	Standard deviation of inflation rate.	WDI and IFS
SECOND90	Per capita GDP in 1990.	WDI
INVESTMENT INSTITUTION	Primary school enrollment rate and secondary school enrollment rate in 1990.	WDI
SUPERVISION	Gross capital formation as a share of GDP.	WDI
CAPITALREGU	General condition of institutional environment, which consists of corruption, law and order, and bureaucratic quality. The variable ICRG range from 0 to 16, with a higher value indicating better quality.	BCL
GOVEFF	Official supervisory power examines whether the supervisory authorities possess the power to take corrective action when confronted with violations of regulations or other imprudent behavior on the part of banks. The variable ranges from 0 to 14, with a higher value indicating greater power.	BCL
REGUQUAL	Capital regulatory index, which consists of overall capital stringency and initial capital stringency, examines whether there are explicit regulatory requirements regarding the amount and source of capital that a bank is required to possess. The variable ranges from 0 to 10, with a higher value indicating greater stringency.	BCL
EASIA	Government effectiveness, which focuses on inputs required for the government to be able to produce and implement good policies and deliver public goods, measures the ability of the government to formulate and implement sound policies. The variable ranges from -2.5 to 2.5, with a higher value indicating better governance.	KKZ
LATIN	Regulatory quality, which focuses on the policies themselves, measures the ability of the government to formulate and implement sound policies. The variable ranges from -2.5 to 2.5, with a higher value indicating better governance.	KKZ
SSAFRICA	East Asian and Pacific countries =1, otherwise =0.	WDI
	Latin American and Caribbean countries =1, otherwise =0.	WDI
	Sub-Saharan African countries =1, otherwise =0.	WDI

Notes: WDI: *World Development Indicators*, published by the World Bank. IFS: *International Financial Statistics*, published by the IMF. BDL: Beck, Demirgüç-Kunt and Levine (2000). ICRG: *International Country Risk Guide*, published by the PRS Group. BCL: Barth, Caprio, and Levine (2006). KKZ: Kaufmann, Kraay, and Mastruzzi (2005).

Table 3-2 Summary Statistics over the two periods

Variable Name	Mean	Median	Standard Deviation	Minimum	Maximum	Observations
The first period: 1994-2000						
PCGDPGR	2.817	2.684	1.681	-0.851	8.198	69
COMMIT_BANK	0.564	0.593	0.264	0	0.975	69
COMMIT_FIN	0.577	0.581	0.238	0.033	0.977	69
CONCENTRATION	68.160	70.563	19.188	25.472	100	69
SIZE	1.315	0.252	4.149	0.002	30.310	69
CREDIT	102.410	87.967	93.511	8.230	802.081	69
TRADE	90.489	73.167	59.155	18.652	335.342	69
STDINFLA	21.184	2.034	103.314	0.305	778.388	69
PCGDP90	9963.659	5642.889	9455.008	315.502	33251.686	69
SECOND90	176.682	185.674	26.994	100.712	221.898	69
INVESTMENT	22.937	22.747	4.563	13.733	35.094	69
INSTITUTION	11.553	11.286	2.805	6.5	16	69
SUPERVISION	11.043	11	2.476	5	14	69
CAPITALREGU	5.667	6	1.695	1	9	69
GOVEFF	0.827	0.718	0.896	-1.024	2.513	69
REGUQUAL	0.850	0.851	0.536	-0.274	2.084	69
EASIA	0.145	0	0.355	0	1	69
LATIN	0.217	0	0.415	0	1	69
SSAFRICA	0.014	0	0.120	0	1	69
Variable Name	Mean	Median	Standard Deviation	Minimum	Maximum	Observations
The second period: 2001-2006						
PCGDPGR	2.116	1.885	1.961	-0.765	8.277	67
COMMIT_BANK	0.595	0.604	0.274	0	0.933	67
COMMIT_FIN	0.623	0.597	0.244	0.028	0.959	67
CONCENTRATION	62.963	64.181	19.718	26.733	100	67
SIZE	1.335	0.280	4.182	0.002	30.759	67
CREDIT	96.650	85.315	84.886	16.891	731.347	67
TRADE	96.259	78.211	63.197	21.099	350.757	67
STDINFLA	1.816	1.192	2.831	0.198	20.982	67
PCGDP90	9732.142	5249.892	9366.175	315.502	33251.686	67
SECOND90	176.906	186.079	27.340	100.712	221.898	67
INVESTMENT	21.314	20.948	4.449	12.689	36.049	67
INSTITUTION	10.486	9.885	2.969	4.5	16	67
SUPERVISION	11.045	11	2.458	5	14	67
CAPITALREGU	5.657	6	1.711	1	9	67
GOVEFF	0.800	0.773	0.919	-1.157	2.316	67
REGUQUAL	0.794	0.868	0.750	-0.810	1.971	67
EASIA	0.149	0	0.359	0	1	67
LATIN	0.224	0	0.420	0	1	67
SSAFRICA	0.015	0	0.122	0	1	67



Table 3-3 Average Statistics by Country over 1994-2006

Country	PCGDPGR	CONCENTRATION	SIZE	CREDIT	TRADE	STDINFLA	PCGDP90	SECOND90	INVESTMENT	INSTITUTION	SUPERVISION	CAPITALREGU	GOVEFF	REGUQUAL	EASIA	LATIN	SSAFRICA
Albania	6.8	71.8	0.0	11.4	54.1	10.7	984	178	21.0	6.7	12	4	-0.5	-0.2	0	0	0
Argentina	0.7	41.1	0.9	58.1	26.8	8.0	5643	177	17.1	9.4	9	6	0.1	0.1	0	1	0
Australia	2.5	63.8	1.2	90.7	41.2	1.4	16081	189	23.2	14.9	10	6	1.9	1.5	1	0	0
Austria	1.8	70.9	0.6	80.1	90.7	0.7	19477	202	23.8	14.6	13	8	1.8	1.5	0	0	0
Bahrain	1.2	85.1	0.0	173.7	147.0	1.5	9238	210	16.3	10.2	14	7	0.6	0.9	0	0	0
Barbados	1.7	99.4	0.0	95.3	110.9	2.5	8580	NA	16.6	NA	NA	NA	1.2	0.8	0	1	0
Belgium	1.9	88.5	0.7	57.9	151.5	0.6	18496	202	20.3	13.1	10	8	1.6	1.2	0	0	0
Belize	NA	NA	NA	NA	NA	2.1	NA	NA	NA	NA	NA	NA	NA	NA	0	1	0
Bolivia	1.2	56.9	0.0	102.0	49.1	3.5	871	132	16.6	7.3	10	5	-0.4	0.5	0	1	0
Brazil	1.3	44.9	1.9	73.5	22.7	595.6	3119	144	20.9	7.5	13	9	-0.1	0.3	0	1	0
Brunei	NA	100.0	NA	NA	NA	2.1	NA	184	NA	12.3	NA	NA	0.8	1.0	1	0	0
Bulgaria	2.6	66.6	0.0	67.5	107.2	299.4	1724	173	15.8	9.5	11	7	-0.3	0.4	0	0	0
Canada	2.5	55.8	2.2	104.6	77.7	0.7	19250	205	19.9	15.5	10	4	2.0	1.4	0	0	0
Chile	3.4	55.2	0.2	88.8	60.9	2.9	3072	173	24.2	11.3	11	6	1.3	1.4	0	1	0
China	8.1	71.2	3.3	91.6	49.1	8.0	364	174	39.5	8.9	NA	5	0.2	-0.2	1	0	0
Colombia	0.6	40.2	0.3	118.1	38.8	7.0	1869	152	18.6	6.2	13	6	-0.1	0.2	0	1	0
Costa Rica	2.3	70.7	0.0	69.5	88.9	3.9	3151	145	19.0	10.3	13	6	0.5	0.8	0	1	0
Croatia	4.8	66.8	0.1	76.5	96.0	29.9	4499	149	23.4	10.8	12	5	0.2	0.2	0	0	0
Cuba	3.4	94.9	NA	NA	32.7	7.1	NA	187	7.6	8.8	NA	NA	-0.4	-1.3	0	1	0
Cyprus	3.3	90.4	0.0	109.8	99.6	1.0	8630	162	21.6	13.3	8	5	1.2	1.1	0	0	0
Czech Republic	2.6	75.5	0.2	92.0	119.5	3.8	5250	188	29.4	11.9	8	7	0.7	0.9	0	0	0
Denmark	2.1	78.6	0.5	74.3	74.5	0.4	24458	207	20.0	15.8	9	7	2.0	1.6	0	0	0
Dominica	0.7	NA	0.0	85.8	116.2	0.7	3132	NA	25.2	NA	4	5	-0.4	0.1	0	1	0

Country	PCGDPGR	CONCENTRATION	SIZE	CREDIT	TRADE	STDINFLA	PCGDP90	SECOND90	INVESTMENT	INSTITUTION	SUPERVISION	CAPITALREGU	GOVEFF	REGUQUAL	EASIA	LATIN	SSAFRICA
Dominican Republic	3.4	75.2	0.1	121.9	88.6	14.2	1576	NA	22.0	7.9	NA	NA	-0.4	0.1	0	1	0
Egypt	2.5	58.4	0.3	57.5	45.0	4.1	1240	162	17.9	8.2	14	5	-0.1	-0.2	0	0	0
El Salvador	1.3	87.8	0.0	780.9	63.2	3.5	1639	108	17.0	7.8	10	4	-0.2	0.8	0	1	0
Estonia	6.2	98.4	0.0	77.3	157.3	14.1	3787	209	28.6	10.6	14	3	0.8	1.4	0	0	0
Fiji	2.1	NA	0.0	84.7	120.7	1.5	1867	190	12.7	NA	13	5	-0.2	-0.5	1	0	0
Finland	3.3	99.0	0.4	94.3	68.6	0.9	19970	215	19.0	16.0	6	5	2.0	1.7	0	0	0
France	1.7	56.2	4.2	83.0	49.2	0.5	19167	207	19.3	12.4	7	3	1.6	1.0	0	0	0
Gabon	-0.1	99.3	0.0	54.0	93.8	10.3	4097	NA	27.3	6.3	14	4	-0.7	-0.3	0	0	1
Germany	1.3	65.7	6.0	81.4	59.7	0.6	19461	199	20.9	14.4	11	6	1.8	1.4	0	0	0
Greece	2.9	73.2	0.4	48.0	48.8	2.8	8754	192	22.0	11.4	12	6	0.8	0.9	0	0	0
Grenada	2.2	NA	0.0	89.6	115.8	0.9	3043	NA	35.3	NA	4	5	0.0	0.2	0	1	0
Guatemala	0.8	36.4	0.1	125.0	44.9	1.9	1473	NA	16.3	6.7	4	7	-0.5	0.2	0	1	0
Guyana	2.4	100.0	0.0	52.5	205.4	2.5	605	172	26.2	9.1	10	4	-0.2	0.0	0	1	0
Honduras	0.1	52.2	0.0	124.4	94.0	7.4	889	NA	31.6	6.0	9	5	-0.6	0.0	0	1	0
Hong Kong	2.3	70.7	0.5	106.6	288.6	4.9	18624	182	28.8	12.2	11	6	1.5	1.8	1	0	0
Hungary	3.8	64.9	0.1	50.4	119.6	8.0	4169	173	26.3	13.0	14	5	0.7	1.1	0	0	0
Iceland	2.8	100.0	0.0	95.5	75.0	1.7	25427	201	20.7	15.6	5	6	2.0	1.2	0	0	0
India	4.5	36.8	1.4	53.7	27.0	3.3	316	143	23.1	9.6	10	8	-0.1	-0.3	0	0	0
Indonesia	2.0	60.6	0.5	65.6	64.2	14.8	557	160	21.9	6.9	NA	NA	-0.3	-0.2	1	0	0
Ireland	6.6	67.4	0.3	95.4	155.9	1.4	13458	203	21.8	13.4	11	3	1.7	1.6	0	0	0
Israel	1.3	75.7	0.4	96.0	79.5	4.5	14585	186	22.1	12.6	7	6	1.1	0.9	0	0	0
Italy	1.6	41.9	3.5	70.4	50.4	1.1	16176	187	19.4	11.3	7	6	0.9	0.9	0	0	0
Jamaica	0.1	89.4	0.0	88.5	97.8	9.0	3081	167	28.2	7.8	NA	NA	-0.2	0.4	0	1	0
Japan	1.2	37.9	15.5	125.9	19.4	0.7	33252	197	26.7	13.2	12	6	1.2	0.9	1	0	0
Jordan	1.2	87.8	0.0	85.6	116.8	1.6	1624	164	25.6	10.0	14	8	0.4	0.3	0	0	0

Country	PCGDPGR	CONCENTRATION	SIZE	CREDIT	TRADE	STDINFLA	PCGDP90	SECOND90	INVESTMENT	INSTITUTION	SUPERVISION	CAPITALREGU	GOVEFF	REGUQUAL	EASIA	LATIN	SSAFRICA
Kenya	-0.1	59.9	0.0	68.9	61.9	7.0	379	118	15.6	7.5	13	7	-0.8	-0.4	0	0	1
Korea	4.5	44.7	1.6	109.4	69.8	1.8	6618	195	32.1	11.2	12	3	0.7	0.6	1	0	0
Latvia	6.4	54.2	0.0	71.9	102.9	10.8	3904	188	24.6	9.7	13	7	0.4	0.7	0	0	0
Liechtenstein	NA	95.0	NA	NA	NA	NA	NA	NA	NA	NA	11	7	1.6	1.7	0	0	0
Lithuania	4.6	86.3	0.0	84.1	108.9	22.3	4323	186	22.1	9.0	11	4	0.4	0.7	0	0	0
Luxembourg	3.4	25.9	0.1	109.3	247.2	0.7	30061	167	22.7	15.3	13	7	2.2	1.7	0	0	0
Macao	0.8	71.7	0.0	172.4	134.8	3.9	12949	164	19.8	NA	9	6	0.9	1.1	1	0	0
Macedonia	0.8	82.1	0.0	97.4	91.1	35.9	2067	155	20.0	NA	12	4	-0.3	-0.1	0	0	0
Malaysia	3.2	46.8	0.3	125.7	204.5	1.2	2498	150	31.5	10.1	11	3	0.9	0.6	1	0	0
Malta	2.4	90.6	0.0	81.2	185.2	0.9	6557	191	25.6	12.2	14	6	1.1	0.7	0	0	0
Mauritius	3.7	87.7	0.0	74.5	123.9	1.2	2522	162	26.0	NA	10	8	0.6	0.4	0	0	1
Mexico	1.3	68.5	1.8	63.3	58.5	11.3	4973	167	22.4	7.7	8	7	0.1	0.6	0	1	0
Morocco	1.9	66.8	0.1	68.8	64.3	1.8	1111	101	22.1	10.7	13	7	0.1	0.1	0	0	0
Netherlands	1.8	74.1	1.2	87.8	117.3	0.8	18611	222	21.5	15.7	5	6	2.2	1.8	0	0	0
New Zealand	2.3	80.0	0.2	99.9	61.1	1.0	15147	195	21.4	15.3	7	4	2.0	1.7	1	0	0
Nicaragua	1.5	65.4	0.0	25.3	68.4	2.8	739	134	31.5	8.7	12	5	-0.7	0.0	0	1	0
Norway	2.6	90.0	0.6	117.8	72.1	0.8	28886	203	21.9	15.2	9	5	1.9	1.3	0	0	0
Oman	1.1	81.3	0.1	99.8	90.5	1.1	7771	130	15.7	10.1	14	7	0.9	0.6	0	0	0
Pakistan	1.3	61.2	0.2	59.2	35.8	3.7	461	NA	17.0	7.2	13	7	-0.5	-0.6	0	0	0
Panama	2.1	33.7	0.0	109.1	150.5	0.4	2956	168	27.1	7.0	11	5	-0.1	0.7	0	1	0
Paraguay	-0.7	50.5	0.0	103.2	71.4	4.4	1531	136	23.0	6.2	14	3	-1.1	-0.3	0	1	0
Peru	2.6	73.9	0.2	119.3	33.0	6.6	1669	186	21.6	7.6	12	6	-0.2	0.5	0	1	0
Philippines	2.0	53.3	0.2	71.5	97.8	1.9	921	180	21.4	8.3	11	4	0.0	0.3	1	0	0
Poland	4.6	55.5	0.5	70.9	56.0	10.6	3053	180	21.5	11.4	9	7	0.6	0.6	0	0	0
Portugal	1.9	85.8	0.3	91.0	68.6	1.0	8184	190	26.2	12.7	14	6	1.1	1.3	0	0	0

Country	PCGDPGR	CONCENTRATION	SIZE	CREDIT	TRADE	STDINFLA	PCGDP90	SECOND90	INVESTMENT	INSTITUTION	SUPERVISION	CAPITALREGU	GOVEFF	REGUQUAL	EASIA	LATIN	SSAFRICA
Qatar	7.8	92.5	0.0	61.7	84.6	2.7	NA	184	31.8	9.7	10	4	0.8	0.2	0	0	0
Singapore	3.1	92.6	0.3	149.0	340.0	1.0	14401	172	29.9	13.8	14	7	2.4	2.0	1	0	0
Slovak Republic	4.3	72.1	0.1	79.2	135.5	3.3	3703	NA	28.7	11.3	14	8	0.3	0.6	0	0	0
Slovenia	3.8	65.1	0.1	80.5	115.2	4.8	8013	199	24.7	11.3	12	9	0.8	0.7	0	0	0
South Africa	NA	NA	NA	NA	NA	2.4	NA	NA	NA	NA	NA	NA	NA	NA	0	0	1
Spain	2.5	55.8	1.8	79.6	53.9	0.9	11114	213	23.9	12.3	9	9	1.7	1.2	0	0	0
Sri Lanka	3.2	71.2	0.0	68.6	80.5	3.3	604	190	24.7	8.7	7	7	-0.3	0.4	0	0	0
St. Kitts and Nevis	2.4	NA	0.0	87.4	117.6	2.1	5236	NA	45.2	NA	4	5	-0.2	0.2	0	1	0
St. Lucia	0.0	NA	0.0	111.6	124.6	1.9	3933	191	24.4	NA	4	5	0.1	0.2	0	1	0
St. Vincent and the Grenadines	2.2	NA	0.0	107.4	117.4	1.4	2574	170	30.6	NA	4	5	-0.1	0.2	0	1	0
Suriname	2.0	NA	0.0	70.3	63.4	121.3	1999	152	18.0	7.3	5	5	-0.2	-0.7	0	1	0
Sweden	2.7	97.8	0.8	154.8	78.1	1.0	22998	190	17.0	15.8	8	2	1.9	1.4	0	0	0
Switzerland	0.7	67.6	0.8	92.0	75.9	0.5	33039	189	22.6	14.8	14	6	2.3	1.5	0	0	0
Taiwan	4.0	32.1	0.9	81.3	84.6	1.5	9418	195	21.2	10.6	14	6	1.3	1.1	1	0	0
Thailand	3.1	53.7	0.4	117.8	108.3	2.5	1427	129	29.5	9.3	10	4	0.3	0.4	1	0	0
Trinidad and Tobago	4.8	75.7	0.0	127.7	97.3	1.7	4914	177	22.9	9.1	10	1	0.4	0.7	0	1	0
Tunisia	3.3	47.4	0.1	111.0	91.5	1.2	1503	158	25.9	9.6	13	8	0.8	0.1	0	0	0
Turkey	1.6	65.9	0.6	49.5	54.1	32.2	2497	147	23.0	8.9	14	5	-0.1	0.3	0	0	0
United Arab Emirates	-0.8	53.4	0.2	105.2	139.0	8.7	26809	176	28.5	8.7	14	7	0.7	0.8	0	0	0
United Kingdom	2.7	52.2	4.6	97.0	55.8	0.7	19733	195	17.1	14.8	11	5	2.1	1.7	0	0	0
United States	2.3	30.1	30.5	260.2	23.9	0.6	28263	195	19.1	14.1	13	6	1.8	1.5	0	0	0
Uruguay	0.9	73.8	0.1	81.7	42.1	14.3	4802	190	14.5	7.7	12	4	0.6	0.8	0	1	0

Table 3-4 Correlation Matrix

	COMMIT_BANK	COMMIT_FIN	CONCENTRATION	SIZE	CREDIT	TRADE	STDINFLA	PCGDP90	SECOND90	INVESTMENT	INSTITUTION	SUPERVISION	CAPITALREGU	GOVEFF	REGUQUAL	EASIA	LATIN	SSAFRICA	
COMMIT_BANK	1																		
COMMIT_FIN	0.924	1																	
CONCENTRATION	-0.061	0.031	1																
SIZE	0.127	0.104	-0.353	1															
CREDIT	-0.252	-0.309	0.095	0.182	1														
TRADE	0.020	0.096	0.248	-0.258	0.004	1													
STDINFLA	-0.131	-0.117	-0.120	-0.012	-0.063	-0.122	1												
PCGDP90	0.435	0.397	0.024	0.420	0.056	0.076	-0.153	1											
SECOND90	0.529	0.507	0.193	0.187	-0.228	0.058	-0.157	0.558	1										
INVESTMENT	0.041	0.058	-0.051	-0.078	-0.155	0.460	-0.131	-0.074	0.013	1									
INSTITUTION	0.432	0.443	0.249	0.228	-0.033	0.145	-0.202	0.782	0.592	0.005	1								
SUPERVISION	-0.092	-0.038	-0.209	0.040	-0.031	0.176	0.101	-0.218	-0.317	0.159	-0.345	1							
CAPITALREGU	0.074	0.023	-0.145	0.032	-0.160	-0.012	0.251	0.057	-0.011	-0.022	0.042	0.140	1						
GOVEFF	0.428	0.424	0.173	0.228	0.008	0.238	-0.217	0.815	0.648	0.012	0.920	-0.259	0.048	1					
REGUQUAL	0.434	0.411	0.234	0.182	0.137	0.304	-0.173	0.719	0.637	0.026	0.824	-0.253	-0.016	0.910	1				
EASIA	0.000	0.010	-0.191	0.081	0.033	0.267	-0.081	0.082	0.027	0.404	0.106	0.026	-0.188	0.187	0.168	1			
LATIN	-0.498	-0.531	-0.103	-0.120	0.183	-0.186	0.183	-0.404	-0.379	-0.127	-0.560	0.034	-0.167	-0.496	-0.326	-0.217	1		
SSAFRICA	-0.132	-0.060	-0.041	-0.038	-0.043	-0.063	-0.016	-0.124	-0.264	-0.203	-0.159	0.097	0.096	-0.215	-0.243	-0.050	-0.064	1	

Table 3-5 The GDP Per Capita Growth Equation

Independent Variables	1	2	3	4	5	6
CONSTANT	-5.680* (-4.827)	-5.748* (-4.789)	-4.035* (-2.767)	-7.911* (-5.848)	-6.396* (-4.782)	-7.407* (-5.053)
COMMIT_BANK	0.667 (0.800)			7.750** (2.474)	7.843* (2.667)	7.010** (2.274)
COMMIT_FIN			-4.739*** (-1.864)			
COMMIT_FIN <sup>2</sup>			4.972** (2.239)			
COMMIT_BANK × SUPERVISION				0.184** (2.182)	0.125 (1.403)	0.185** (2.230)
COMMIT_BANK × CAPITALREGU				-0.424* (-3.050)	-0.337** (-2.570)	-0.374* (-2.801)
COMMIT_BANK × GOVEFF				1.543*** (1.770)	0.813 (0.881)	1.420*** (1.665)
COMMIT_BANK × REGUQUAL				-0.772 (-1.033)	0.130 (0.175)	-0.610 (-0.821)
COMMIT_BANK × INSTITUTION				-0.707* (-2.750)	-0.702* (-2.921)	-0.662** (-2.568)
COMMIT_BANK × EASIA				-1.094*** (-1.958)		
COMMIT_BANK × LATIN					-2.356* (-3.350)	
COMMIT_BANK × SSAFRICA						-0.988 (-0.574)
CONCENTRATION	-0.027** (-2.181)	-0.026** (-2.091)	-0.032** (-2.330)	-0.011 (-0.808)	-0.004 (-0.319)	-0.006 (-0.474)
CREDIT	0.002*** (1.935)	0.002 (1.476)	0.001 (0.894)	0.002 (1.632)	0.001 (1.039)	0.001 (1.241)
TRADE	0.001 (0.451)	0.001 (0.380)	0.002 (0.639)	0.0002 (0.074)	-0.002 (-0.552)	-0.001 (-0.202)
STDINFLA	-0.001 (-0.771)	-0.001 (-0.814)	-0.0003 (-0.460)	0.0002 (0.285)	0.0004 (0.411)	0.0001 (0.178)
PCGDP90	-0.0002* (-5.576)	-0.0002* (-5.279)	-0.0002* (-5.565)	-0.0001* (-5.304)	-0.0001* (-4.679)	-0.0001* (-5.460)
SECOND90	0.028* (3.821)	0.030* (4.095)	0.029* (4.083)	0.022* (3.044)	0.020* (2.737)	0.021* (2.865)
INSTITUTION	0.293* (3.396)	0.296* (3.334)	0.285* (3.377)	0.586* (3.889)	0.491* (3.319)	0.548* (3.650)
INVESTMENT	0.118* (3.173)	0.118* (3.081)	0.111* (2.905)	0.092* (2.710)	0.078** (2.317)	0.082** (2.386)
R <sup>2</sup>	0.323	0.308	0.345	0.375	0.405	0.368
Obs.	142	142	142	136	136	136

Notes: Heteroskedasticity-robust t-values are in parentheses; \*, \*\*, and \*\*\* denote significance at the 1%, 5%, and 10% levels, respectively. The model is estimated by Two-Stage Least Squares (TSLS), while the second stage uses Weighted Least Squares (WLS) with the weight being equal to *INSTITUTION*.

Table 3-6 The Bank Concentration Equation

Independent Variables	1	2	3	4	5	6
CONSTANT	89.668* (15.325)	89.668* (15.325)	88.255* (10.206)	89.656* (14.582)	89.656* (14.582)	89.656* (14.582)
COMMIT_BANK	-22.805** (-2.305)	-22.805** (-2.305)		-22.822** (-2.226)	-22.822** (-2.226)	-22.822** (-2.226)
COMMIT_FIN			-13.844 (-1.141)			
SIZE	-8.196* (-3.031)	-8.196* (-3.031)	-10.714* (-3.061)	-8.179* (-2.946)	-8.179* (-2.946)	-8.179* (-2.946)
R <sup>2</sup>	0.923	0.923	0.914	0.921	0.921	0.921
Obs.	142	142	142	136	136	136

*Notes:* Heteroskedasticity-robust t-values are in parentheses; \*, \*\*, and \*\*\* denote significance at the 1%, 5%, and 10% levels, respectively. The model is estimated by Weighted Least Squares (WLS) with the weight being equal to *SIZE*.