Capital account liberalization and credit overallocation

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Abstract

This paper investigates the effect of capital account liberalization on bank credit allocation. Using country-year fixed effects to address policy endogeneity and unlisted small firm data to isolate credit supply effect, I find that capital account liberalization makes association between banks' loan allocation decision and borrower firm fundamentals weaker. Corroborating this, I also find that capital account liberalization allows firms with weak fundamentals to accumulate bank debt and expand balance sheet. These findings suggest that capital account liberalization leads to credit overallocation, which increases systemic risk through unsound firms' debt accumulation.

JEL Codes: F36, G21, G32

Keywords: capital account liberalization, capital flows, bank, credit overallocation

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1. Introduction

Recent evidence suggests that liberalization of cross-border capital flows lead to higher productivity through increased access to capital for financially constrained firms (Larrain and Stumpner, 2016; Varela, 2016). However, literature from the late 1990s to early 2000s takes more negative stance. For example, Kaminsky and Reinhart (1999) find that financial crises are often preceded by excessive foreign capital inflows and currency overvaluation. Also, theoretical studies show that foreign capital inflows induce asset bubble due to investors' over-risk taking (Allen and Gale, 1999, 2000) and firms' self-fulfilling price increase expectation (Schneider and Tornell, 2004). Which story is more plausible is an important policy question.

There is solid evidence that liberalization of domestic capital movement facilitates efficient capital allocation, but not overallocation. For example, Bertrand et al. (2007) find that banking sector liberalization in France increased bank credit allocation to more productive firms, but decreased to less productive firms. Also, Kerr and Nanda (2009) find that bank branching deregulation in the US increased new firm entry but also increased bankruptcy of those firms. Corroborating these, Rice and Strahan (2010) find that US bank branching deregulation decreased interest rate charged on small firms but did not increase lending.

However, unlike domestic capital, foreign capital is prone to sudden withdrawal (Caballero and Krishnamurthy, 2001), which leads to fluctuation in asset prices. As Bernanke and Gertler (1989) and Kiyotaki and Moore (1997) show in their model, increase in asset price gives banks incentive to increase lending because firms' collateral value increases. But banks stop lending once the asset price drops, making firms unable to rollover their debt. Thus, liberalization of cross-border capital movement can potentially facilitate credit overallocation because it increases both banks' capital availability and asset price.

In this paper, I empirically investigate this possibility. Using country-year fixed effects to overcome policy endogeneity and unlisted small firm data to isolate credit supply effect, I show that capital account liberalization makes banks less concerned about borrower firms' fundamentals when they allocate loans. In addition, capital account liberalization allows firms with weak fundamentals to accumulate bank debts and expand their balance sheet. These findings suggest that capital account liberalization induces overallocation of credit, which increases systemic risk through weak firms' debt accumulation.

The main contribution of this paper is to provide causal evidence on the negative aspect of capital

account liberalization within the capital allocation framework, within which the recent literature finds favorable evidence (Larrain and Stumpner, 2016; Varela, 2016). However, my findings do not contradict with this literature, because increased access to capital for financially constrained firms and banks' credit overallocation are not mutually exclusive.

This paper proceeds as follows. Section 2 places the contribution of this paper in the literature. Section 3 discusses the identification strategy. Section 4 describes the data. Section 5 presents the results. Section 6 concludes.

2. Literature review

In addition to the literature on the effect of capital account liberalization on capital allocation, this paper is aligned with the literature on the effect of regulatory and policy changes on resource allocation through bank credit channel. Manganelli and Popov (2015) find that financial liberalization leads to lower output volatility through efficient sectoral labor allocation which is due to increased access to credit. Gopinath et al. (2015) find that foreign capital inflows lower total factor productivity through bank credit misallocation towards high networth firms in Southern European countries but not Western European or Scandinavian countries. Bai et al. (2016) find that bank branching deregulation leads to more efficient labor allocation. Black and Strahan (2002) find that bank branching deregulation increases new firm entry due to increased relationship lending. Zarutskie (2006) finds that bank branching deregulation increases small firms' financial constraints.

This paper also contributes to the effect of financial liberalization on the economic condition in general by providing additional empirical evidence. Chari et al. (2012) find that capital account liberalization increases wage. Larrain (2015) finds that capital account liberalization increases wage inequality between skilled and unskilled workers. Quinn and Toyoda (2008) find that capital account liberalization leads to economic growth. Gupta and Yuan (2009) find that stock market liberalization leads to higher growth in sectors that are more dependent to external finance. Bekaert et al. (2006) find that financial liberalization reduces consumption volatility. Alfaro and Hammel (2007) find that equity market liberalization increases import of capital goods such as machinery and equipment. Klein and Olivei (2008) find that capital account liberalization increases economic growth and banking sector development for developed economies but not for emerging economies. Bonfiglioli (2008) finds that financial liberalization increases aggregate productivity but not investment. Glick et al. (2006) find that capital account liberalization actually reduces likelihood

of currency crisis after controlling for selection bias.

3. Identification strategy

The structural relationship of interest is the effect of capital account liberalization on lending that is unrelated to borrower firm fundamentals:

$$Lending\ unrelated\ to\ borrower\ fundamentals_{b,c} = \alpha + \beta Capital\ account\ liberalized_c + \epsilon_{b,c} \quad (1)$$

Where subscripts b stands for bank and c for country. If capital account liberalization is orthogonal to the error term – if liberalization of capital account is unrelated to factors that also affect association between bank lending and borrower firm fundamentals – then the cross-sectional OLS estimate of β yields the unbiased treatment effect.

However, there are several problems with estimating this equation. The first problem is data availability. First, researchers cannot observe whether a particular loan is allocated without taking into account for borrower fundamentals. Also, year of capital account liberalization is not observable either, as liberalization of capital account is usually a gradual process rather than a one-time decision by the country.

The second problem is endogeneity of capital account liberalization. A country's decision to make its capital account more/less liberal is related to its macroeconomic conditions such as its economic maturity, strategic consideration to relations with other countries (joining the EU, for example), pressure from other countries, and demand for more capital from firms and banks, which are likely to be correlated to association between bank lending and borrower fundamentals.

Taking into account these considerations, the empirically feasible relationship of interest takes the following triple differences form[1]

$$\frac{\Delta L_{r,c,t}}{L_{r,c,t-1}} = \alpha_r + \alpha_{c,t} + \beta_1 CapitalOpenness_{c,t} * \log TFP_{r,t-1} + \beta_2 \log TFP_{r,t-1} + \epsilon_{r,c,t} \quad (2)$$

where subscripts r stands for region, c for country, and t for year.

$CapitalOpenness_{c,t-1}$ is Chinn and Ito (2006)'s capital account openness index, a proxy for degree of

[1] $CapitalOpenness_{c,t-1}$ is the interaction term between post dummy and treated dummy. Post dummy is absorbed by year fixed effects, treated dummy is absorbed by country-fixed effects, $CapitalOpenness_{c,t-1}$ is absorbed by country-year fixed effects, treated times log of TFP is subsumed in $\log TFP_{r,t-1}$, and post time log of TFP is subsumed in the triple difference term. See Imbens and Wooldridge (2009) for use of continuous variable in difference-in-difference.

capital account liberalization.[2] Since capital account liberalization is a gradual process rather than one-time event, I add time dimension to the structural relationship.

Also, since information on lending relationship is not available in my data, I aggregate bank loan growth and firm productivity at region-level to associate bank loan growth and firm productivity. This is justified because banks and firms in my sample are small so these banks are considered to operate mostly locally and these firms are considered to mostly rely on relationship lending. The median size of banks in the sample measured in total assets is about 584 million in 2009 US dollars, well below the $1 billion cutoff under which a bank is considered as a community bank that mainly provides loans to local businesses and individuals (**?**). Also, maximum number of employees of firms in the sample is below 150, which is considered as a small business in most industry in the US.[3] In particular, all firms in my sample are unlisted, so do not have access to stock markets. Further, I use NUTS3 category for region, whose average geographical size is 3,400 km^2 in 2010,[4] which roughly corresponds to the average US county size (about 3,120 km^2 in 2000).[5][6]

Note that use of unlisted small firms also allows me to isolate credit supply effect, because these firms cannot access to capital markets and bank credit is the only channel through which increased access to capital affects them. So the results I find are attributable to credit supply effect caused by capital account liberalization.

$\alpha_{c,t}$ is country-year fixed effects that absorb all country-specific time-varying factors, including policy endogeneity.

$\frac{\Delta L_{r,c,t}}{L_{r,c,t-1}}$ is weighted average of loan growth of banks operated in region r in country c at year t, with weight being each bank's total asset. $\log TFP_{r,t-1}$ is log of weighted average of total factor productivity of firms operating in region r in year $t-1$ with weight being each firm's total asset. Total factor productivity is a proxy for firm fundamentals.[7]

[2] Capital account openness index is defined as the first principal component of the four dummy variables on cross-border financial transactions restrictions reported in the IMF's "Annual Report on Exchange Arrangements and Exchange Restrictions": (i) a dummy variable indicating the existing of multiple exchange rates, (ii) a dummy variable indicating restrictions on current account transactions, (iii) a 5-year moving average of a dummy variable indicating restrictions on capital account transactions, and (iv) a dummy variable indicating the requirement of the surrender of export proceeds. The first principal component is normalized into 0-1 range with 0 being the most closed and 1 being the most open.

[3] https://www.sba.gov/contracting/getting-started-contractor/make-sure-you-meet-sba-size-standards/table-small-business-size-standards

[4] http://ec.europa.eu/eurostat/documents/3859598/5916917/KS-RA-11-011-EN.PDF

[5] https://factfinder.census.gov

[6] According to Petersen and Rajan (2002), mean distance from a firm and its lender's branch is about 185km in the US during 1973-1993. Taking into account that one bank has several branches, county is a reasonable size for a bank to conduct relationship lending.

[7] Profitability such as ROA can be affected by asset price increase, but total factor productivity is not.

The rationale for the formulation of equation (2) is that loan growth at time t is determined by bank's decision on whether to extend loans at time $t-1$, and if credit is correctly allocated the decision is made upon observing a borrower firm's fundamentals at time $t-1$. Thus, the interaction term between capital account openness and $\log TFP_{r,t-1}$ shows whether capital account liberalization changes association between banks' decision to allocate loans and borrower firms' fundamentals.

Total factor productivity is estimated as a Solow residual assuming that a firm's production is characterized by a Cobb-Douglas production function. More specifically, I define total factor productivity (TFP) as $output_{f,t} = TFP_{f,t} k_{f,t}^{\gamma_{c,t}} l_{f,t}^{1-\gamma_{c,t}}$, where $\gamma_{c,t}$ is labor share of income and varies at country and year level, obtained from the Penn World Table. This is justified if (i) share of labor and capital is same across firms in a same country in a given year, and (ii) firms' production function is approximated by a Cobb-Douglas form with constant returns to scale.[8]

$\epsilon_{r,c,t}$ is the error term. Since in a difference-in-difference setting error term exhibits serial correlation because the difference-in-difference term is serially correlated, statistical significance of the treatment effect is overestimated (Bertrand et al., 2004). Thus, I cluster standard error at each country level.

4. Data

Main data sources are Amadeus and Bankscope. Amadeus contains financial statements data for European listed and unlisted firms. In particular, this data set includes many unlisted small firms. I convert all the financial variables into 2009 US dollars in thousand for firms and in million for banks to make values comparable across countries and years. The sample spans from 1996 to 2014.

Bankscope contains financial statements data for listed and unlisted banks all over the world in a unified format, which enables to compare banks operating in different countries.

Among the countries in Amadeus and Bankscope, I use firms in 12 Eastern European countries for the analysis: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Lithuania, Macedonia, Poland, Romania, Slovakia, Slovenia, and Ukraine. It is because these countries' capital account is not yet fully open at 1996 but changes during the sample period, as shown in figure 1. This gives me variation in capital openness within and across countries.

Figure 1 Here

[8] I take log to fit the model better, since the distribution of the total factor productivity is likely to have positive skew.

Also, as figure 2 shows, these 12 Eastern European countries and the sample period are similar to other countries and other period with respect to their relationship between capital openness and credit expansion: for both all countries from 1970 to 2014 (the left figure) and my sample (the right figure), capital openness is accompanied by an increase in private sector credit.

Figure 2 Here

To identify capital account liberalization as a supply shock, I exclude large firms and listed firms from the sample. A firm is considered to be small if it meets all the following criteria: (i) operating revenue below 10 million Euro (11 million US dollars), (ii) total assets below 20 million Euro (22 million US dollars), and (iii) number of employees below 150, and (iv) not listed in any stock exchange.

Also, I exclude foreign-owned banks and firms as they may already have access to foreign capital regardless of a country's capital openness. In addition, I exclude non-commercial banks and firms because their objective may not be profit maximization, and they may have non-commercial financing sources such as government subsidy. These possibility raises potential concern that there may be weak or even no association between bank loan growth and borrower firm productivity even in normal times.

Table 1 summarizes main variables. Data is cleaned as follows: (i) bank-level observations with top and bottom 1% of and 200% or higher loan growth are trimmed before averaging them at regional level to reduce the influence of outliers, (ii) firm-level observations with top and bottom 1% of debt to assets ratio are trimmed, and (iii) firm-level observations with negative total assets, negative operating revenue, and negative number of employees are dropped as they are likely to be due to data error.

Note that for firm data, I temporarily use 10% random sample of the firms in the original data to reduce computational time.

Table 1 Here

5. Results

5.1. Change in association between lending and firm fundamentals

Table 2 presents main results using region-level data (equation (2)).

Table 2 Here

First, column 4, which addresses policy endogeneity using country-year fixed effects, shows that banks indeed observe borrower firms' fundamentals in allocating loans, as shown by the positive and statistically and economically significant coefficient estimate on lagged log regional TFP. On average, a region with firms whose TFP is one log point higher than other regions have 12% higher loan growth.

However, capital account liberalization weakens this association, as shown by the negative and statistically and economically significant coefficient estimate on the interaction between capital account openness and lagged log regional TFP. On average, a regions in a country whose capital account openness is one standard deviation higher than regions in other countries have only 6% higher loan growth (11.75 - 18.13*0.33) for one log point higher regional TFP.

5.1.1. More affected banks

Column 5 also presents result using country-year fixed effects, but with regional loan growth calculated as a simple average of each bank's loan growth in the region. Thus, the estimates in this column underestimates the effect on larger banks.

Coefficient estimate on the interaction between capital account openness and lagged log regional TFP in column 5 is smaller than in column 4, suggesting that larger banks are more affected by capital account liberalization than smaller banks.

5.1.2. Direction of the bias

Finally, coefficient estimates on the interaction between capital account openness and lagged log regional TFP in columns 1 to 4 suggests that policy endogeneity biases the effect of capital account liberalization upward. Thus, the bias works against finding evidence of credit overallocation.

5.2. Change in firm capital structure

If capital account liberalization makes association between lending and firm fundamentals weaker, then firms with weaker fundamentals should accumulate bank debt.

To confirm this intuition, I run the following firm-level regression:

$$\frac{BankDebt_{f,c,t}}{TotalAssets_{f,c,t}} = \alpha_f + \alpha_{c,t} + \beta_1 CapitalOpenness_{c,t} * \log TFP_{f,t} + \beta_2 \log TFP_{f,t} + \epsilon_{f,c,t} \quad (3)$$

where subscripts f stands for firm, c for country, and t for year. Other variables are defined in a way similar to region-level regression.

The results are in table 3.

Table 3 Here

Column 4 includes country-year fixed effects and is my preferred specification. It shows that in a normal time, a firm's fundamentals is irrelevant to its equilibrium debt ratio, as shown by the statistically insignificant coefficient estimate on firm-level log TFP.

However, column 4 also shows that capital account liberalization increases bank debt of firms with weak fundamentals, as shown by the statistically significant coefficient estimate on the interaction term between capital account openness index and firm-level log TFP. Specifically, a firm with one log point lower TFP and in a country whose capital account openness is one standard deviation higher has on average 0.5% (-1.62*0.33) higher bank debt relative to its book value of total assets.

The direction of bias is again positive, so the policy endogeneity works against finding evidence of bank debt accumulation.

5.3. Effect on firm balance sheet size

If firms with weak fundamentals accumulate bank debt, then these firms should expand their balance sheet.

To confirm this intuition, I run the following firm-level regression:

$$\log TotalAssets_{f,c,t} = \alpha_f + \alpha_{c,t} + \beta_1 CapitalOpenness_{c,t} * \log TFP_{f,t} + \beta_2 \log TFP_{f,t} + \epsilon_{f,c,t} \quad (4)$$

Table 4 presents the results.

Table 4 Here

Again, column 4 includes country-year fixed effects to address policy endogeneity. Column 4 shows that in a normal time firms with strong fundamentals are larger: on average, a firm with one log point higher TFP than other firms are 0.14 log point larger, or 15% ((exp(0.14)-1)*100) larger.

However, capital account liberalization makes this association weaker. Coefficient estimate on the interaction term between capital account openness index and firm-level log TFP in column 4 shows that a firm with one log point higher TFP and in a country with one standard deviation higher capital account openness index is only 0.06 (0.14-0.08) log point larger, or 6% ((exp(0.06)-1)*100) larger.

The direction of bias is again positive, suggesting that the policy endogeneity works against finding evidence of increase in balance sheet size.

Therefore, capital account liberalization makes association between borrower fundamentals and bank lending decision weaker. This is confirmed by that capital account liberalization increases bank debt and balance sheet size of firms with weak fundamentals. These findings suggest that capital account liberalization leads to overallocation of credit.

6. Conclusions

I examine the effect of capital account liberalization on bank credit allocation. Intuitively, as firms' collateral value increases due to asset price increase, banks lend to firms beyond economically optimal level. Using country-year fixed effects to control for policy endogeneity and unlisted small firms to isolate credit supply effect, I find that capital account liberalization makes association between bank lending and firm fundamentals weaker. Corroborating this finding, capital account liberalization increases bank debt of firms with weak fundamentals, and makes them larger. These findings suggests that capital account liberalization leads to overallocation of credit.

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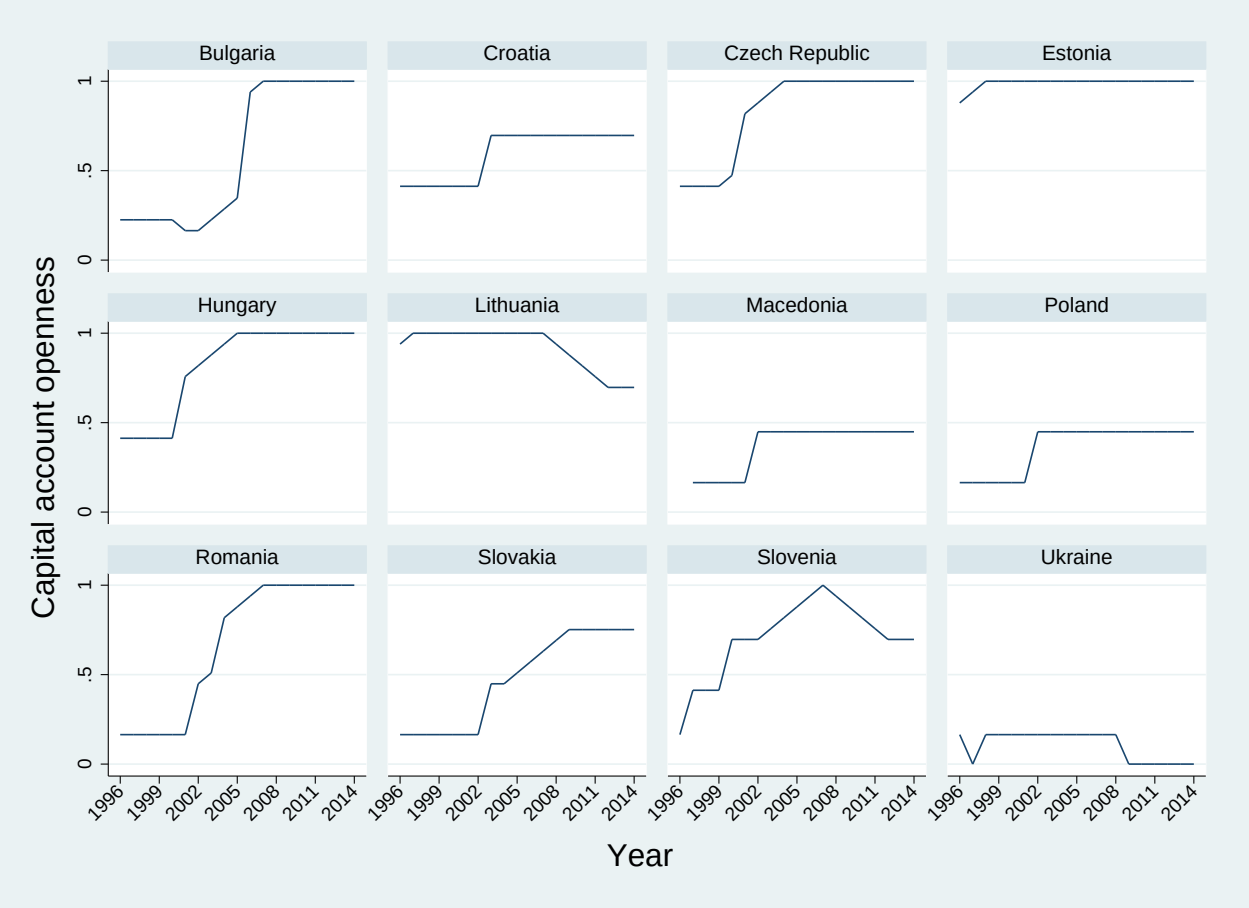
Figures & Tables

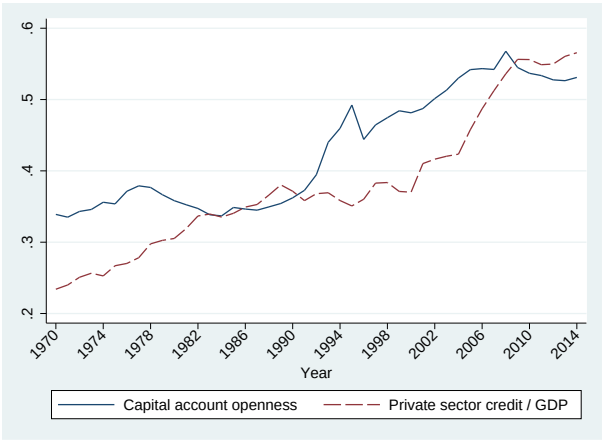
Figure 1: Capital account openness for 12 Eastern European countries from 1996 to 2014



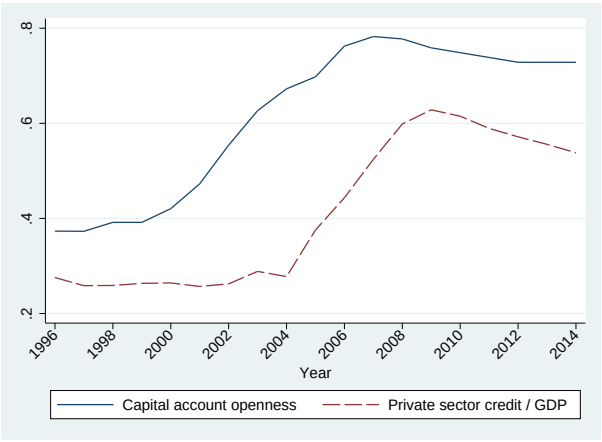
Note: This figure plots Chinn and Ito (2006)'s capital account openness index for 12 Eastern European countries for the sample period from 1996 to 2014.
This figure shows that these countries do not fully open its capital account at 1996, but gradually change its openness throughout the sample period, giving us enough within-country and cross-country variation in degree of capital account liberalization.

Figure 2: Capital account openness and private sector credit

(a) All countries



(b) 12 Eastern European countries



Note: These time-series data are constructed by taking average of the series across countries in each year. These figures show that capital account liberalization is indeed associated with expansion in private sector credit for all countries as well as countries in my sample. Source: World Development Indicators and Chinn and Ito (2006).

Table 1: Summary statistics

	Obs.	Mean	Std. dev.	Min	Max
Panel A: Country-level data					
Capital openness	227	0.62	0.33	0	1
Panel B: Region-level data					
Loan growth, %					
weighted average	847	21.3	34.3	-53.9	185.6
simple average	847	21.8	32.5	-53.9	180.3
Log regional TFP	725	4.1	1.0	-2.0	8.6
Panel C: Firm-level data					
Bank debt to assets, %	474,078	7.4	16.5	0	94.0
Log total assets	775,585	4.6	2.0	-6.6	15.1
Log TFP	775,591	2.7	1.5	-13.2	12.5

Note: Regional variables other than simple loan growth are asset-size weighted average of banks (for loan growth) or firms (for TFP) in the region.
TFP is estimated as a Solow residual assuming that a firm's production is characterized by a Cobb-Douglas production function. More specifically, I define total factor productivity (TFP) as $output_{f,t} = TFP_{f,t} k_{f,t}^{\gamma_{c,t}} l_{f,t}^{1-\gamma_{c,t}}$, where $\gamma_{c,t}$ is labor share of income and varies at country and year level, obtained from the Penn World Table.
Bank-level observations with top and bottom 1% of and 200% or higher loan growth are trimmed before averaging them at regional level to reduce the influence of outliers.
Similarly, firm-level observations with top and bottom 1% of debt to assets ratio are trimmed.
Also, firm-level observations with negative total assets, negative operating revenue, and negative number of employees are dropped as they are likely to be due to data error.
Firm-level data is 10% random sample of the firms in the original data to reduce computational time.

Table 2: Change in association between bank lending and firm fundamentals

	(1)	(2)	(3)	(4)	(5)
Specification			OLS		
Dependent variable			Loan growth, %		
Capital openness	-1.73	-1.87	4.05	-18.13**	-15.72**
* Log regional TFP$_{-1}$	(6.94)	(7.26)	(7.68)	(6.31)	(6.85)
Capital openness	2.26	9.41	-11.02		
	(34.87)	(28.28)	(33.25)		
Log regional TFP$_{-1}$	-0.51	-1.41	-3.42	11.75***	10.88***
	(3.23)	(3.21)	(3.58)	(2.66)	(2.57)
Country fixed effects	No	Yes	No	No	No
Year fixed effects	No	Yes	Yes	No	No
Country-year fixed effects	No	No	No	Yes	Yes
Region fixed effects	No	No	Yes	Yes	Yes
Observations	680	680	680	680	680
Number of regions	72	72	72	72	72
R-squared	0.00	0.37	0.47	0.66	0.69

Note: This table reports results from the following region-level regression:

$$\frac{\Delta L_{r,c,t}}{L_{r,c,t-1}} = \alpha_r + \alpha_{c,t} + \beta_1 CapitalOpenness_{c,t} * \log TFP_{r,t-1} + \beta_2 \log TFP_{r,t-1} + \epsilon_{r,c,t}$$

Country-year fixed effects, $\alpha_{c,t}$, control for policy endogeneity.
The table shows that (i) firms strong fundamentals receive more bank loan in a normal time (column 4), (ii) but capital account liberalization weakens this association (column 4), (iii) larger banks are more negatively affected by capital account liberalization (column 5), and (iv) policy endogeneity biases the effect of capital account liberalization against finding credit overallocation (columns 1 to 4).
Standard errors are clustered at the country level. ***, **, * indicate statistical significance at 1%, 5%, and 10% levels, respectively.

Table 3: Change in firm capital structure

	(1)	(2)	(3)	(4)
Specification	OLS			
Dependent variable	Bank debt to assets, %			
Capital openness	-0.93	-1.49***	-1.56***	-1.62***
* Log TFP	(0.55)	(0.44)	(0.42)	(0.44)
Capital openness	8.32**	6.81**	4.93	
	(3.35)	(2.70)	(3.04)	
Log TFP	0.56**	0.31*	0.07	0.10
	(0.21)	(0.15)	(0.14)	(0.12)
Country fixed effects	No	Yes	No	No
Year fixed effects	No	Yes	Yes	No
Country-year fixed effects	No	No	No	Yes
Firm fixed effects	No	No	Yes	Yes
Observations	474,078	474,078	474,078	474,078
Number of firms	117,653	117,653	117,653	117,653
R-squared	0.02	0.15	0.72	0.72

Note: This table reports results from the following firm-level regression:

$$\frac{BankDebt_{f,c,t}}{TotalAssets_{f,c,t}} = \alpha_f + \alpha_{c,t} + \beta_1 CapitalOpenness_{c,t} * \log TFP_{f,t} + \beta_2 \log TFP_{f,t} + \epsilon_{f,c,t}$$

Country-year fixed effects, $\alpha_{c,t}$, control for policy endogeneity.
The table shows that (i) a firm's fundamentals is irrelevant to its equilibrium debt ratio in a normal time (column 4), (ii) but capital account liberalization increases bank debt of firms with weak fundamentals (column 4), and (iii) policy endogeneity biases the effect of capital account liberalization against finding bank debt accumulation (columns 1 to 4).
Standard errors are clustered at the country level. ***, **, * indicate statistical significance at 1%, 5%, and 10% levels, respectively.

Table 4: Effect on firm balance sheet size

	(1)	(2)	(3)	(4)
Specification	OLS			
Dependent variable	Log total assets			
Capital openness	0.05	0.03	-0.09***	-0.08***
* Log TFP	(0.09)	(0.03)	(0.01)	(0.01)
Capital openness	0.34	0.26	1.25***	
	(0.21)	(0.55)	(0.30)	
Log TFP	0.20**	0.14***	0.14***	0.14***
	(0.07)	(0.01)	(0.00)	(0.00)
Country fixed effects	No	Yes	No	No
Year fixed effects	No	Yes	Yes	No
Country-year fixed effects	No	No	No	Yes
Firm fixed effects	No	No	Yes	Yes
Observations	775,585	775,585	775,585	775,585
Number of firms	165,560	165,560	165,560	165,560
R-squared	0.04	0.15	0.92	0.93

Note: This table reports results from the following firm-level regression:

$$\log TotalAssets_{f,c,t} = \alpha_f + \alpha_{c,t} + \beta_1 CapitalOpenness_{c,t} * \log TFP_{f,t} + \beta_2 \log TFP_{f,t} + \epsilon_{f,c,t}$$

Country-year fixed effects, $\alpha_{c,t}$, control for policy endogeneity.
The table shows that (i) firms with strong fundamentals are larger in a normal time (column 4), (ii) but capital account liberalization makes this association weaker (column 4), and (iii) policy endogeneity biases the effect of capital account liberalization against finding increase in balance sheet size (from columns 1 to 4).
Standard errors are clustered at the country level. ***, **, * indicate statistical significance at 1%, 5%, and 10% levels, respectively.