

Global Liquidity and Household Credit

January, 2021

Berrak Bahadir and Neven Valev

Abstract

We show that global liquidity contributes to household credit growth across countries. The effect is particularly strong in countries that are more closely integrated with the world economy as well as in those with a greater level of financial development and more open capital markets. We also find tentative evidence that countries with a greater presence of foreign banks and those with more concentrated banking systems experience a closer link between global liquidity and household credit.

JEL Codes: G21; E3

Key words: Consumer credit; household credit; global liquidity

Bahadir, Florida International University (bbahadir@fiu.edu); Valev (corresponding author), Georgia State University (nvalev@gsu.edu).

Global Liquidity and Household Credit

1. Introduction

Recent work by Mian and Sufi (2017) has highlighted the potential problems associated with a rapid built-up of household credit. An exogenous positive shock to household credit supply eases borrowing terms and leads to credit-fueled consumption growth. In a few years, higher leverage and stricter lending terms reverse that process so that household consumption and economic growth slow down. In that sense, the rapid growth in household credit is a precursor and a cause of the subsequent slowdown of economic activity.

That sequence of events is not new to the literature as banking crises are often associated with large capital inflows, lending booms, and currency market volatility as documented by Kaminsky and Reinhart (1999). The new aspects are the identification of *household credit* as a key driving force in that cycle and that the problems with a rapid growth of household credit are not limited to countries that experience a banking crisis. The issues can manifest themselves in less turbulent periods. These relatively recent developments documented in the literature reflect the rapid expansion of household credit across the world in the last few decades described by Jordà, Schularick, and Taylor (2016).

In this paper we build on that literature with a focus on the drivers of household credit growth. Specifically, we test whether changes to global liquidity contribute to changes in household credit. The exogenous nature of global liquidity serves to isolate the effect of a supply-side factor for household credit largely unrelated to domestic conditions. These are the types of influences to credit supply that spur the boom-bust cycle investigated by Mian and Sufi (2017). Hence, we test whether global monetary conditions do indeed affect household credit growth while controlling for domestic growth dynamics. We also explore a range of factors that enhance or

reduce the link between global liquidity and household credit growth. We use data from the Bank for International Settlements to carry out the analysis.

Our estimations reveal that global liquidity does drive domestic household credit, especially in countries that are more closely integrated with the world economy as well as in those with a greater level of financial development and more open capital markets. We also find tentative evidence that countries with a greater presence of foreign banks and those with more concentrated banking systems experience a closer link between global liquidity and household credit.

Our paper adds to the literature in several ways. First, we contribute to the literature on global liquidity, capital flows, and domestic credit. Although the prevailing view is that global monetary conditions spill over into domestic money markets as in Lane and McQuade (2014), Caballero (2016), Davis et. al (2017), Baskaya et. al. (2017), and Choi et. al. (2017) there is also evidence that downplays the influence of these factors as in Han and Elekdag (2015) and Amri, Richey, and Willett (2016). Against that background, it is not clear whether, to what extent, and under what circumstances would global liquidity filter to domestic bank credit and to household credit more specifically. Our contribution is to explore these issues. Second, we extend the global liquidity literature that has investigated the determinants of liquidity on the world scale, e.g. Eickmeier, Gambacorta and Hofmann (2014) and Avdjiev et. al. (2018) as well as its effects on a range of variables including, for example, housing prices (Cesa-Bianchi, Cespedes, and Rebucci, 2015) and food prices (Belke, Bordon, and Ulrich, 2013). We add analysis on the link between global liquidity and household credit. Third, we build on the literature exploring household credit such as Beck et al (2012) and Samarina and Bezemer (2016) who study the composition of bank credit in terms of household and business credit and Mian and Sufi (2017) who investigate the

effect of household credit on business cycles. In this paper, we investigate the determinants of household credit growth with a focus on the effect of global liquidity.

The rest of the paper is structured as follows. The next section discusses in more detail the link between global liquidity and household credit and derives our hypotheses. Then, section 3 presents the data and the empirical model. Section 4 discusses the results and section 5 concludes.

2. Global liquidity and household credit: hypotheses

Despite the significant academic and policy interest in global liquidity, its exact definition and measurement are elusive as it encompasses various monetary aggregates as well as the price and other terms of financing. The term, however, that seems to capture the key element of this line of inquiry is “ease of financing” as formulated by CGFS (2011). Eickmeier, Gambacorta and Hofmann (2014) refine this further: “In broad terms, global liquidity refers to the availability of funds for purchases of goods or assets from a global perspective.” The visible outcome of the degree to which financing is “easy” is the level of credit to the private non-financial sector. Expanding credit indicates easing conditions and contracting or stagnating credit indicates that financing terms have hardened.¹ Following that logic, the global liquidity measure published by the Bank for International Settlements and used in this paper is the sum of resident and non-resident bank lending to the private sector across countries. The question we try to answer is whether easing of financing conditions globally as indicated by that variable leads to the easing of financing conditions and household credit expansion in individual countries and under what conditions.

¹ The methodological notes that accompany the BIS global liquidity data state that: “The outstanding amount of credit shows how far the ease of financing has led to a build-up of exposures. In other words, credit to private sector borrowers reflects the outcome of financial intermediation in global markets.”

The most direct channel for connecting global liquidity to the domestic credit markets is through the greater availability of financing to banks that tap world financial markets and intermediate funds to the end consumer. For example, Lane and McQuade (2014) show that, in line with the observed disconnect between bank deposit growth and credit growth, international debt flows explain domestic credit growth in European countries as well as in a broader sample of countries before the global financial crisis. Milesi-Ferretti et. al. (2011) show that this process and the subsequent retrenchment of credit after the onset of the crisis is stronger in countries that are more financially integrated with the world economy. Further, Allen et al (2011) highlight the role of multinational banks in channeling external liquidity to the domestic credit markets. These papers explore the link between external finance and domestic credit around the time of a financial crisis, but similar patterns are likely to hold in other periods.

Against that background, we can single out several moderating factors that could potentially accentuate or dampen the spillover of global liquidity into a particular country. Broadly, we can categorize them as those related to the openness of the economy, its level of financial development, and its financial structure. Countries with greater capital account openness and those that are more closely integrated into the world economy are likely to experience a greater impact of global finance conditions on their domestic credit markets through greater cross-border interbank lending. Countries with more developed financial systems are also more likely to tap into expanding global liquidity and to have greater readiness to intermediate the additional available funds to borrowers.

In terms of financial structure, we conjecture that countries with a greater share of foreign owned banks will have a greater link between global liquidity and household lending as multinational banks are a conduit of international financing. Similar logic applies to large banks

that can more easily tap global financial markets. Hence, our hypothesis is that countries with more concentrated banking systems will experience a greater effect of global liquidity on household credit.

3. Data and methodology

The data for global liquidity and household credit to GDP for 39 countries are sourced from the Bank of International Settlements (BIS) Database.² The global liquidity variable is defined as total credit to private non-bank borrowers in all borrowing countries divided by their GDP. This variable includes all cross-border and local bank lending to the private non-financial sector in domestic and foreign currency. The household credit to GDP series comes from the BIS Credit to the Non-financial Sector Dataset. The coverage of our sample varies by country mostly due to the availability of the household credit data.

Appendix Tables 1 and 2 display summary statistics for the main variables of our analysis including the change in household credit to GDP ratio and the global liquidity measure, as well as the institutional dummy variables used in the analysis. We observe that the average annual change in the household credit to GDP ratio and global liquidity are 1.04 and 0.74 percentage point, respectively. We also observe that the correlation between the two variables is 0.23, suggesting that there is some model free evidence for a positive co-movement between them.

We investigate the effect of global liquidity on household credit using the following benchmark specification:

² The countries included in our analysis are Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, Denmark, United Kingdom, New Zealand, Finland, France, Germany, Greece, Czech Republic, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Luxembourg, Malaysia, Mexico, Netherlands, Norway, Poland, Portugal, Russia, Singapore, Spain, Sweden, Thailand, Turkey, South Africa, and Switzerland.

$$(1) \quad \Delta_4 HC_{it} = \alpha + \beta \Delta_4 GL_{it-5} + \gamma \Delta_4 HC_{it-5} + Z'_{i,t-5} \Gamma + \varepsilon_{it}$$

where $\Delta_4 HC_{it}$ is the year-on-year change in the household credit to GDP ratio, i.e. the change from the same quarter of the previous year and $\Delta_4 GL_{it-5}$ is the average year-on-year change in global liquidity based on four quarters of data, the last one of which is a year before the current observation. We take a four-quarter average of the changes in global liquidity to better capture a tendency in that variable that is separate from the quarter-to-quarter fluctuations. The substantial lag in the variable intends to reduce endogeneity concerns that are, in principle, limited due to the nature of the global liquidity variable. It is unlikely that causation runs from household credit in a given country to global liquidity but there could be common unobserved drivers of both variables. Next, $\Delta_4 HC_{it-5}$ is a lag of the dependent variable constructed in the same way as the global liquidity variable and Γ are control variables that include the year-on-year growth in real GDP and prices, also lagged one year, as well as a financial crisis variable from Laeven and Valencia (2020). Our hypothesis is that $\beta > 0$, i.e. the changes to global liquidity influence household credit growth in a given country in subsequent years while controlling for the household credit growth, GDP growth, inflation, and the occurrence of a financial crisis in that country. The model is estimated with country-specific fixed effects; with year dummy variables; and with General Least Squares techniques allowing for autocorrelation and heteroskedasticity across countries. Real GDP growth and inflation series are obtained from the World Development Indicators of the World Bank.

To explore further the link between global liquidity and household credit growth, we then estimate a series of specifications where global liquidity is interacted with the following variables:

- The capital controls restriction index from Fernández et. al. (2016) where higher values indicate more capital controls on capital movements.

- The economic globalization index from the KOF institute that is a composite measure of integration of an economy with the world economy with equal weight placed on trade and finance (see Gygli et. al. 2019).
- The financial development index developed by Svirydzenka (2016) that combines information on the depth, access, and efficiency of financial institutions and markets in that country. A higher value of the index indicates a higher level of financial development.
- The financial assets of non-resident banks as percent of GDP from the Financial Structure database of the World Bank (introduced by Beck, Demirgüç-Kunt and Levine 2000) as a measure of the importance of multinational banks in the domestic financial system.
- The percent of the banking system assets held at foreign-owned banks from the Financial Structure database of the World Bank.
- The index of banking system concentration from the Financial Structure database defined as the percent of banking system assets held at the three or five largest banks in a country.

We expect that the link between global liquidity and household credit will be stronger in countries with greater capital account openness, greater integration with the world economy, greater financial development, greater importance of foreign banks and more concentrated banking systems. To make the interpretation of these variables easier, we construct dummy variables for each of them. The dummy variables equal 1 if the mean value over the sample period for a country is greater than the overall sample average.

4. Results

Table 1 presents our results for the effect of global liquidity on household credit dynamics. We find that an increase in global liquidity leads to expanding household credit, confirming our

hypothesis that there is a positive association between household credit and global liquidity. This result is robust after controlling for the lagged household credit growth, real GDP growth, inflation, and a financial crisis dummy. In terms of magnitude, the coefficient estimates suggest that a one standard deviation (2.74) increase in the average global liquidity over the last four quarters leads to about 0.137 percentage points increase in the change in household credit to GDP. This effect is quite sizeable given that the average household credit growth in our sample is 1.04 percentage points.

Our results further show that household credit growth is persistent, with a 0.54 coefficient on the lagged household credit growth. Among the control variables, real GDP growth has a positive and significant effect on household credit growth. This positive link between household credit and GDP growth is in line with the prior literature on economic activity and credit cycles (Bahadir and Gumus, 2016). We find a positive but insignificant effect of inflation on household credit growth. Finally, when we control for the crisis years, the coefficient on this dummy variable is negative and significant.

Next, we explore the importance of various factors that may influence the relationship between global liquidity and household credit by including interaction terms with the variables presented in the previous section. Before discussing these results, however, it is useful to look at Tables 2 through 4 as they report the estimation results of the same specifications but using different estimation techniques. Specifically, Table 2 reports the same estimations as in Table 1 but with the addition of yearly dummy variables. The intent is to control for any tendencies or influences that are common across countries in any specific year. Then, in Table 3 we switch from a panel regression with country-specific fixed effects to Generalized Least Squares allowing for autoregression within the panels. Here, the goal is to take into account more explicitly the

persistence in the household credit growth variable. Finally, in Table 4 we retain the GLS method, but we also allow for heteroskedasticity across panels to reflect the potentially varying patterns of behavior of financial systems across countries.

The first and probably most important takeaway from looking at the four tables is that global liquidity is positive and statistically significant in all benchmark estimations where we do not include interaction variables. The size of its estimated coefficient is also similar. Starting with the interactions, the interaction coefficient of global liquidity with capital controls is negative and statistically significant in all tables. Moreover, its size in absolute terms is about the same as the coefficient estimate on global liquidity itself which remains positive and statistically significant. In other words, while countries with more open capital markets have a link between global liquidity and household credit, countries with more closed capital accounts do not.³ Moreover, the size of the effect in the more open economies is two times greater than in the benchmark estimation where we do not differentiate between countries along those lines. The effect of global liquidity on household credit in these countries is therefore not only statistically significant but also economically substantial. We observe a similar – albeit somewhat less robust – pattern of results using the KOF globalization index. Using that measure too, the link between global liquidity and household credit is stronger in countries that are more integrated into the world economy.

Financial development has a similar influence in terms of statistical significance and magnitude of the effect. Countries with a relatively greater level of financial development exhibit a close connection between global liquidity and household credit with a size of the effect that doubles what we observe in the benchmark estimations. Less financially developed countries do not, on average, seem to have that link. Looking at these results, it seems that the connection

³ This lack of statistical significance in the countries with relatively closed capital accounts is confirmed with a formal test.

between global liquidity and household credit is limited to countries with open and developed financial systems where the effect is robust and important in size. That link is not evident in less developed, less open countries.

Beyond those factors, the results reveal a more nuanced picture. The interaction terms with the share of foreign banks and the assets of non-resident banks as percent of GDP are generally positive suggesting a role for international banks in channeling global liquidity but the results are not uniformly robust across estimations. The same seems true of the degree of concentration of the banking system, irrespective of whether we consider the share of the top three or the top five banks. There is some evidence that greater concentration of the banking system is associated with a closer link between global liquidity and household credit, but the results are also not robust. All in all, the structure of the banking system seems to play some role, but it is not as important as the general level of financial development and the openness of the economy. It seems that domestic banks and smaller banks can also be an important conduit for global liquidity.

5. Conclusions

We investigate the extent to which changes to financing conditions on a global level filter through to domestic household credit. Our interest in household credit is motivated by the recent literature that has identified household credit cycles as an important contributing factor to business cycle fluctuations. In that context, exogenous external drivers of household credit are of particular interest as they have the potential to influence the economy irrespective of domestic conditions. Our results provide empirical support for a link between global liquidity and household credit, but the effect is not uniform across countries. The effect is limited to countries with more developed financial systems and more open capital accounts. Some of the results point to a tighter link in

countries with a greater participation of foreign banks and more concentrated banking systems but that evidence is more tentative.

Our results suggest that policy makers should continuously assess to what extent domestic credit conditions are influenced by external forces. As those forces are not necessarily aligned with the dynamics or the current needs of the domestic economy, measures can be taken to reduce their impact. That seems particularly important in more advanced and open economies.

Using the readily available BIS measures for global liquidity and household credit makes replicating, questioning, and extending our results a straightforward exercise. Still, it would be useful if future work can build on this analysis with additional measures, ideas, estimation approaches, and wider ranges of countries and time periods. Given its prominence on the bank balance sheets in recent decades and its impact on the wider economy, we believe that understanding the drivers of household credit is important. We have taken some strides in that direction by considering the role of global liquidity but there is clearly more to be done.

References

Allen, Franklin, Thorsten Beck, Elena Carletti, Philip R. Lane, Dirk Schoenmaker and Wolf Wagner. "Cross-border banking in Europe: Implications for financial stability and macroeconomic policies," Center for Economic Policy Research 2011.

Bahadir, Berrak and Inci Gumus. "Credit Decomposition and Business Cycles in Emerging Market Economies" *Journal of International Economics* 103, 2016, 250-262.

Beck, Thorsten, Asli Demirgüç-Kunt and Ross Levine. "A new database on financial development and structure," *World Bank Economic Review* 14, 2000, 597–605.

Amri, Puspa D., Greg M. Richey, and Thomas D. Willett. "Capital surges and credit booms: How tight is the relationship?" *Open Economies Review* 27(4), September 2016, 637–670.

Avdjiev, Stefan, Cathérine Koch, Patrick McGuire, and Goetz von Peter. "Transmission of monetary policy through global banks: Whose policy matters?" *Journal of International Money and Finance* 89, December 2018, 67-82.

Baskaya, Yusuf Soner , Julian di Giovanni, Şebnem Kalemli-Özcan, José-Luis Peydro, Mehmet Fatih Ulu. "Capital flows and the international credit channel" *Journal of International Economics*, 108 (1), May 2017, 15-22.

Belke, Ansgar, Ingo G. Bordon, and Volz Ulrich. "Effects of global liquidity on commodity and food prices" *World Development* 44, April 2013, 31-43.

Caballero, Julián A. "Do surges in international capital inflows influence the likelihood of banking crises?" *The Economic Journal*, Volume 126, Issue 591, 1 March 2016, Pages 281–316.

Cesa-Bianchi, Ambrogio, Luis Felipe Céspedes, and Alessandro Rebucci. "Global liquidity, house prices, and the macroeconomy: Evidence from advanced and emerging economies" *Journal of Money, Credit and Banking* 47(S1), March/April 2015, 301-335.

Choi, Woon Gyu, Taesu Kang, Geun-Young Kim, and Byongju Lee. "Global liquidity transmission to emerging market economies, and their policy responses" *Journal of International Economics* 109, November 2017, 153-166.

Committee on the Global Financial System. "Global liquidity – concept, measurement and policy implications," Bank for International Settlements, CGFS Papers No 45, November 2011.

Davis, J. Scott, Adrienne Mack, Wesley Phoa, and Anne Vandenabeele. "Credit booms, banking crises, and the current account" *Journal of International Money and Finance* 60, February 2016, 360-377.

Eickmeier, Sandra, Leonardo Gambacorta and Boris Hofmann. "Understanding global liquidity" *European Economic Review* 68, May 2014, 1-18.

Jordà, Òscar , Moritz Schularick, and Alan M. Taylor. "The great mortgaging: housing finance, crises and business cycles" *Economic Policy* 31(85), January 2016, 107–152.

Gygli, Savina, Florian Haelg, Niklas Potrafke and Jan-Egbert Sturm. "The KOF globalisation index – revisited," *Review of International Organizations*, 14(3), 2019, 543-574

Han, Fei and Selim Elekdag. "What drives credit growth in emerging Asia?" *Journal of Asian Economics* 38, June 2015, 1-13.

Kaminsky, Graciela L. and Carmen M. Reinhart. "The twin crises: the causes of banking and balance-of-payments problems" *American Economic Review* 89(3), June 1999, 473-500.

Lane, Philip R. and Peter McQuade. "Domestic credit growth and international capital flows" *Scandinavian Journal of Economics* 116(1), January 2014, 218-252.

Laeven, Luc and Fabian Valencia. "Systemic Banking Crises Database II." *IMF Economic Review* 68, 307–361 (2020).

Milesi-Ferretti, Gian-Maria, Cédric Tille, Gianmarco I.P. Ottaviano and Morton O. Ravn. "The great retrenchment: international capital flows during the global financial crisis" *Economic Policy* 26(66), April 2011, pp. 285, 287-342.

Mian, Atif, Amir Sufi, and Emil Verner. "Household debt and business cycles worldwide." *The Quarterly Journal of Economics* (2017a), 1755-1817.

Samarina, Anna and Dirk Bezemer, "Do capital flows change domestic credit allocation?" *Journal of International Money and Finance* 62, April 2016, 98-121.

Svirydzienka, Katsiaryna. "Introducing a new broad-based index of financial development" *IMF Working Paper WP/16/5*, January 2016.

Appendix

Summary Statistics

Variable	Mean	Std. Dev.	Min	Max
Change in HCGDP	1.19	2.598	-20.975	11.825
Change in GL	.448	3.205	-9.336	7.124
GDP Growth	2.794	2.933	-9.16	25.198
Inflation	3.563	5.208	-4.943	91.28
Crisis	.145	.34	0	1
Cap. Control Dummy	.402	.49	0	1
FD Dummy	.587	.492	0	1
Global Index Dummy	.609	.488	0	1
Foreign Bank Share	.469	.499	0	1
Nonresident Bank Share	.631	.483	0	1
Concentration (3)	.553	.497	0	1
Concentration (5)	.581	.493	0	1

Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Change in HCGDP	1.000											
Change in GL	0.125	1.000										
GDP Growth	-0.065	0.299	1.000									
Inflation	-0.044	0.062	0.074	1.000								
Crisis	-0.108	-0.289	-0.360	0.027	1.000							
Cap. Control Dummy	-0.033	-0.071	0.317	0.298	-0.157	1.000						
FD Dummy	0.040	0.056	-0.143	-0.262	0.071	-0.567	1.000					
Global Index Dummy	0.033	0.065	-0.144	-0.160	0.056	-0.471	0.630	1.000				
Foreign Bank Share	0.050	-0.004	0.145	0.085	-0.094	0.414	-0.210	-0.017	1.000			
Nonresident Bank Share	0.063	0.068	-0.275	-0.129	0.188	-0.632	0.564	0.730	-0.176	1.000		
Concentration (3)	0.055	0.016	-0.060	-0.166	0.035	-0.247	0.159	0.372	-0.143	0.313	1.000	
Concentration (5)	0.059	0.037	-0.091	-0.147	0.010	-0.350	0.213	0.377	-0.082	0.413	0.798	1.000

Table 1: The effect of global liquidity on household credit growth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in HCGDP	0.54*** (0.01)	0.53*** (0.01)	0.54*** (0.01)	0.54*** (0.01)	0.54*** (0.01)	0.53*** (0.01)	0.54*** (0.01)	0.54*** (0.01)
Global Liquidity	0.08*** (0.01)	0.14*** (0.02)	0.02 (0.02)	0.05*** (0.02)	0.04** (0.02)	0.03* (0.02)	0.06*** (0.02)	0.05*** (0.02)
Real GDP Growth	0.20*** (0.02)	0.20*** (0.02)	0.20*** (0.02)	0.20*** (0.02)	0.20*** (0.02)	0.20*** (0.02)	0.20*** (0.02)	0.20*** (0.02)
Inflation	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)	0.02*** (0.01)
Crisis	-1.03*** (0.12)	-0.89*** (0.13)	-0.96*** (0.12)	-1.00*** (0.12)	-1.07*** (0.12)	-0.91*** (0.13)	-1.02*** (0.12)	-1.02*** (0.12)
Capital Controls		-0.12*** (0.02)						
Financial Development			0.11*** (0.02)					
KOF Globalization				0.04* (0.02)				
Foreign Bank Share					0.07*** (0.02)			
Nonresident Bank Share						0.08*** (0.02)		
Concentration (3 large)							0.04* (0.02)	
Concentration (5 large)								0.04** (0.02)
Constant	-0.10 (0.07)	-0.13* (0.07)	-0.13* (0.07)	-0.11 (0.07)	-0.09 (0.07)	-0.11 (0.07)	-0.10 (0.07)	-0.10 (0.07)
Observations	3,430	3,430	3,430	3,430	3,430	3,430	3,430	3,430
R-squared	0.38	0.39	0.39	0.38	0.39	0.39	0.38	0.38
Number of countries	39	39	39	39	39	39	39	39

Table 2: The effect of global liquidity on household credit growth with time dummies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in HCGDP	0.53*** (0.01)	0.53*** (0.01)	0.53*** (0.01)	0.53*** (0.01)	0.53*** (0.01)	0.53*** (0.01)	0.53*** (0.01)	0.53*** (0.01)
Global Liquidity	0.03 (0.03)	0.09*** (0.03)	-0.03 (0.03)	0.02 (0.03)	-0.00 (0.03)	-0.00 (0.03)	0.02 (0.03)	0.02 (0.03)
Real GDP Growth	0.24*** (0.02)	0.24*** (0.02)	0.24*** (0.02)	0.24*** (0.02)	0.24*** (0.02)	0.24*** (0.02)	0.24*** (0.02)	0.24*** (0.02)
Inflation	0.01 (0.01)	0.02* (0.01)	0.02* (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Crisis	-1.06*** (0.12)	-0.92*** (0.13)	-0.98*** (0.12)	-1.03*** (0.13)	-1.10*** (0.12)	-0.95*** (0.13)	-1.05*** (0.12)	-1.05*** (0.12)
Capital Controls		-0.11*** (0.02)						
Financial Development			0.11*** (0.02)					
KOF Globalization				0.03 (0.02)				
Foreign Bank Share					0.07*** (0.02)			
Nonresident Bank Sh.						0.07*** (0.02)		
Concentration (3 large)							0.02 (0.02)	
Concentration (5 large)								0.03 (0.02)
Constant	0.32 (0.70)	0.23 (0.69)	0.19 (0.69)	0.29 (0.70)	0.33 (0.70)	0.29 (0.70)	0.33 (0.70)	0.32 (0.70)
Observations	3,426	3,426	3,426	3,426	3,426	3,426	3,426	3,426
R-squared	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Number of countries	39	39	39	39	39	39	39	39

Table 3: GLS results allowing for autocorrelation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in HCGDP	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Global Liquidity	0.06*** (0.01)	0.10*** (0.02)	-0.00 (0.02)	0.02 (0.02)	0.05** (0.02)	0.02 (0.02)	0.03 (0.02)	0.02 (0.02)
Real GDP Growth	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)
Inflation	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02** (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)
Crisis	-0.76*** (0.21)	-0.68*** (0.21)	-0.71*** (0.21)	-0.72*** (0.21)	-0.77*** (0.21)	-0.70*** (0.21)	-0.74*** (0.21)	-0.73*** (0.21)
Capital Controls		-0.10*** (0.03)						
Financial Development			0.12*** (0.02)					
KOF Globalization				0.08*** (0.03)				
Foreign Bank Share					0.02 (0.02)			
Nonresident Bank Share						0.06** (0.03)		
Concentration (3 large)							0.05** (0.03)	
Concentration (5 large)								0.07*** (0.03)
Constant	0.64*** (0.14)	0.61*** (0.14)	0.62*** (0.14)	0.62*** (0.14)	0.63*** (0.14)	0.62*** (0.14)	0.64*** (0.14)	0.63*** (0.14)
Observations	3,430	3,430	3,430	3,430	3,430	3,430	3,430	3,430
Number of countries	39	39	39	39	39	39	39	39

Table 4: GLS results allowing for autocorrelation and heteroscedasticity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in HCGDP	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Global Liquidity	0.04*** (0.01)	0.08*** (0.01)	0.01 (0.01)	0.02* (0.01)	0.04*** (0.01)	0.02* (0.01)	0.03*** (0.01)	0.03** (0.01)
Real GDP Growth	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)
Inflation	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Crisis	-0.48*** (0.16)	-0.42*** (0.16)	-0.43*** (0.16)	-0.44*** (0.16)	-0.48*** (0.16)	-0.44*** (0.16)	-0.47*** (0.16)	-0.47*** (0.16)
Capital Controls		-0.07*** (0.02)						
Financial Development			0.08*** (0.02)					
KOF Globalization				0.04** (0.02)				
Foreign Bank Share					0.01 (0.02)			
Nonresident Bank Share						0.04** (0.02)		
Concentration (3 large)							0.02 (0.02)	
Concentration (5 large)								0.02 (0.02)
Constant	0.65*** (0.10)	0.63*** (0.10)	0.63*** (0.10)	0.63*** (0.10)	0.65*** (0.10)	0.63*** (0.10)	0.65*** (0.10)	0.65*** (0.10)
Observations	3,430	3,430	3,430	3,430	3,430	3,430	3,430	3,430
Number of countries	39	39	39	39	39	39	39	39