# Banking crises and Exports: Lessons from the Past

For the first time since 1982, in 2009, global trade flows will not grow. According to the latest IMF projections global trade in goods and services is expected to drop by 11% during 2009 and to stagnate in year 2010. The recent collapse in exports following the unfolding of the financial crisis has generated new pressing questions about the relationship between banking crises and exports growth. Are the supply shocks due to the collapse in the banking system responsible for the falls in exports? Or is what we observe completely attributable to the demand side where we have also observed unprecedented drops particularly in developed countries? In Iacovone and Zavacka (2009) we explore these questions using data from 23 past banking crises episodes involving both developed and developing countries during 1980-2000.

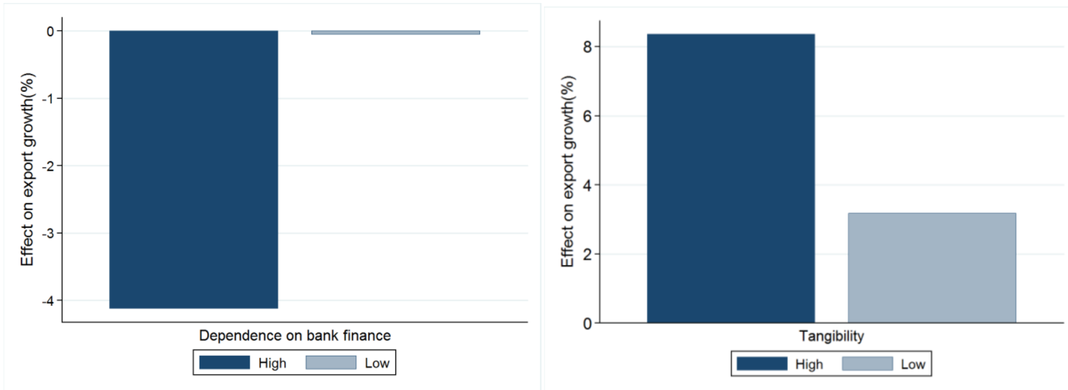
## Supply side effects

Financial constraints arising during periods of banking crises are particularly relevant for exporters who, in addition to production costs, have to face additional expenses to penetrate foreign markets - a fact well documented by various firm level studies (Roberts and Tybout 1997, Iacovone and Javorcik 2008, Muuls 2008). Previous industry level studies have shown that countries with more developed financial systems can develop comparative advantages in industries that rely more on external finance or tend to have lower shares of tangible assets (Manova 2008, Beck 2003). The latter matters because when financial markets are not sufficiently developed the importance of collateral increases and industries with higher shares of tangible assets have a relative advantage in accessing finance. At the same time, it has been shown that in countries with less developed financial systems sectors relying more on trade finance (as opposed to bank finance) tend to grow relatively faster (Fisman and Love 2003).

Building up on these studies we treat a banking crisis as an adverse shock to financial development that reduces the availability of finance from private banks and increases the importance of providing collateral to access finance. Our methodology consists of comparing how during crises export growth changes in industries highly dependent on bank finance with those able to finance their operations through internal cash flow. We expect that, when a crisis hits, the growth in industries highly dependent on finance will fall while the growth of low dependent industries will be relatively unaffected. Indeed, as depicted in Graph 1, this is exactly what we observe in the data.

Our results show that during a crisis the export growth of a sector with a relatively high reliance on external finance, such as electric machinery, is reduced on average by 4 percentage points compared to a sector like footwear whose dependence is relatively low. We also find that exports of industries that tend to have more tangible assets grow relatively faster during a banking crisis confirming the hypothesis about the importance of collateral in a context when access to finance becomes scarcer. Finally, using a proxy for trade credit dependence (Fisman and Love,2003) we show that exports of industries relatively more reliant onon inter-firm finance are not affected by a banking crisis more than others. A potential explanation for this finding is that if importers do not face a crisis themselves they might be willing to accept less favorable payment conditions and extend trade credit to their suppliers in order to allow them to overcome their temporary credit constraints.

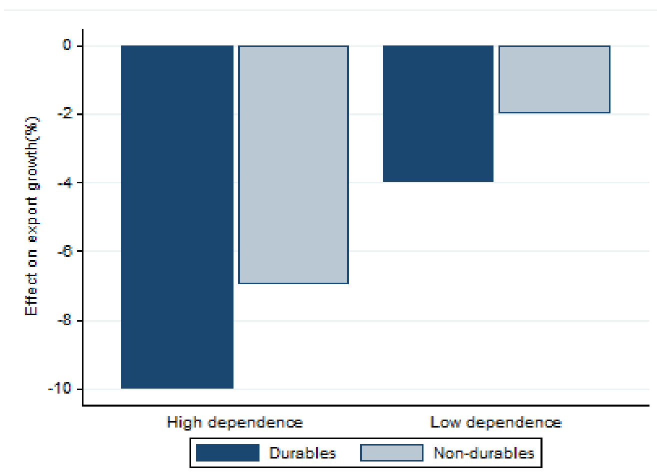
**Graph 1 Impact on export growth in a banking crisis: high vs. low dependent industries**




## Impact of demand shocks during a financial crisis

In addition to the supply side effects driven by credit crunch, we also find evidence that demand shocks operate independently and in addition to the financial channel. In fact, when a banking crisis is simultaneously accompanied by a drop in demand, the exporters will be double hit. Based on our results graph 2 simulates a situation when a country faces at the same time a banking crisis and a recession in its only importer. The drop of 2.8% that we choose for our simulation corresponds to the projection of IMF for the United States in 2009. As the figure shows, the effect of finance is amplified by the demand shock and the latter is particularly pronounced in sectors producing durable goods (e.g. automobiles, domestic appliances) whose growth drops by as much as 10 percentage points. Our finding is in line with the recent VOX column of Caroline Freund[1] who finds that the impact of demand shocks on trade are particularly important in the context of global downturns.

**Graph 2 Drop in export growth in a banking crisis combined with a drop in external demand**



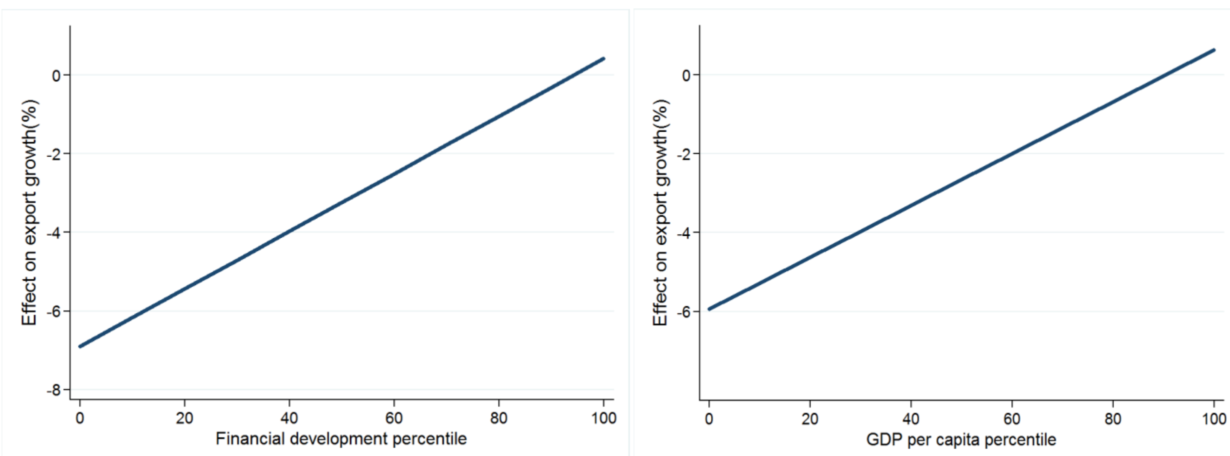

## Policy interventions

Could these dramatic effects on exports be mitigated by policy interventions? Using a reduced sample of 14 out of the 23 periods we are unable to find any positive impact on exporters arising from various policies

[1] http://www.voxeu.org/index.php?q=node/3731

including blanket depositor protection, forbearance, bank recapitalizations and government sponsored debt relief. Rather, it emerges that general economic and financial development and access to alternative sources of finance helps to reduce the adverse effect of a financial crisis. As shown in Graph 3 the differential effect of the crisis on export growth between high and low dependent industry is less negative for richer countries, as well as for countries with a more developed financial system. When a crisis hits a country like Nepal, which has the lowest level of financial development in our sample, the export growth of its sectors highly dependent on banking finance drop by 7 percentage points more than that of sectors able to finance their investment using internal funds. In contrast, in a highly financially developed country, like Japan, there will be almost no difference. A possible explanation for this result is that exporters in more advanced economies are relatively better established firms and are therefore more likely to have better access to finance from foreign sources. In addition, more developed economies tend to have a better diversified financial system allowing them to access financial instruments alternative to banking finance (e.g. leasing, factoring) which can help them to overcome temporary constraints in the context of a banking crisis.

**Graph 3 Impact of banking crisis on export growth: effect of financial development and GDP**



## References


BECK, T. (2003): “Financial Dependence and International trade”, *Review of International Economics,* 11 (2), 296-316.

Caprio, G., and D. Klingebiel (2002): Episodes of financial and borderline financial crises, pp. 31-49, no. 428. World Bank.

Dell'Ariccia, G., E. Detragiache, and R. Rajan (2008): “The real effect of banking crises," Journal of Financial Intermediation, 17(1), 89-112.

FISMAN, R. and I. LOVE (2003): “Trade Credit, Financial Intermediary Development, and Industry Growth,” Journal of Finance, 58(1), 353-374.

FREUND, C.(2009): ”Demystifying the collapse in trade", VOX Column. July 2009.

IMF (2009): “World Economic Outlook: Crisis and Recovery”, April 2009. International Monetary Fund, Washington, D.C.

IACOVONE, L., and B. S. JAVORCIK (2008): “Multi-product exporters : diversication and micro-level dynamics," Policy Research Working Paper Series 4723, The World Bank, Washington, D.C.

IACOVONE, L. and V. ZAVACKA. (2009). “Banking Crises and Exports: Lessons from the Past.” Policy Research Working Paper Series 5016. The World Bank, Washington, D.C.

KROSZNER, R. S., L. LAEVEN, and D. KLINGEBIEL (2007): “Banking crises, financial dependence, and growth," Journal of Financial Economics, 84(1), 187-228.

MANOVA, K. (2008): “Credit Constraints, Equity Market Liberalizations and International Trade,” *Journal of International Economics*, 76, 33-47.

MUULS, M. (2008): “Exporters and credit constraints. A firm-level approach," Research series 200809-22, National Bank of Belgium.

ROBERTS, M. J., and J. R. TYBOUT (1997): “The Decision to Export in Colombia: An Empirical Model of Entry with Sunk Costs," American Economic Review, 87(4), 545-64.