

Union Investment

**The great unwind:
the decline of cross-border banking and its implications for
global current account imbalances**

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Abstract

Our paper starts from the observation that cross-border banking has been in decline since 2008. Other categories of cross-border capital flows, such as FDI or portfolio flows, have been relatively unaffected by the global financial crisis. This trend is not uniform and takes its most extreme form within the euro area.

Working from the assumption that reduced cross-border exposure is going to be the trend over the coming years, in line with a number of observations on post-crisis banking sector behaviour (e.g. Japan or the US after the S&L crisis), we consider the implications this could have for the global macro landscape. Specifically, we link cross-border banking to the prevalence of global current account imbalances for the G20. Running cointegration and causality tests gives a clear indication that the development in both areas is a) closely related and b) causality clearly runs from cross-border-banking to global imbalances.

We conclude that a continued renationalisation in banking would significantly reduce the tolerance for global imbalances, i.e. also lead to some form of deglobalization in other areas as well. For further research two other recent phenomena might be related to: a) OECD exports to GDP have recovered after the global financial crisis but are significantly below the exponential trend-line that existed from 1961 to 2008 and b) cyclical co-movements across regions seem to be on the retreat since.

1. The starting point

Our starting point is the observation that according to the Bank of International Settlement's (BIS) statistics on exchange rate adjusted changes in cross-border lending (stock) a period of almost uninterrupted increases since 1978 and an unprecedented boom from 2001 to 2008 has since given way to an unprecedented collapse. Indeed after briefly turning positive in 2011 the stocks are now back in contracting mode for the G20, which we define in this context excluding Saudi-Arabia due to a lack of data and the EU as an entity in order to avoid double counting.

The findings from the BIS data are confirmed by looking at the flow data from the IMF's international financial statistics (IFS) on the financing side of the balance of payments. While flows of portfolio investments and foreign direct investment are relatively unchanged with regard to pre-crisis trends, flows of bank liabilities and assets are not only way below pre-crisis trends, they are showing outright repatriation of bank capital (chart 1). A problem with the IFS dataset is, however, that some of the time-series are interrupted at times or discontinued. E.g. the last published data point for Australia is Q2 2009. While we would have a strong preference for flow rather than stock data for analytical purposes, we will use the stock data from the BIS as the more continuous dataset.

The trend towards less cross-border banking since 2008 has not been uniform across the G20 spectrum. While outright declines have been seen from 2008 onwards in the advanced economies in general, outright and continuing declines have taken place in EMU while there has been a slight pickup since 2011 for Japan, the US, and the UK. For Emerging Markets there is no significant change to be seen from the pre-crisis pattern (chart 2).

2. A brief review of literature on the decline of cross-border banking

Of course, we are not the first to have noted the decline in cross-border banking.

A first strand of literature, e.g. Düwel/Frey/Lipponer (2012), focuses on the micro determinants of lending by banks. Based on a dataset for German banks, they find that banks tend to reduce their cross-border lending in times of stress in their home market especially when their foreign business is not based on local deposits but either capital market or internal funding.

A second approach, e.g. Reinhart (2012) focuses more on the political economy. Reinhart first points out that "periods of high international capital mobility have repeatedly produced international banking crises". She then

goes on to say that in the aftermath of a crisis and the shift from private to public debts and deficits, “advanced economies have incentives to keep capital ‘in’ and create a domestic captive audience to facilitate the financing for the high existing levels of public debt”.

A third strand, e.g. Forbes (2012), identifies cross-border banking as a factor that causes economic interdependence and is a potential source of contagion in crisis. She, however, goes on to stress that only higher international liabilities are problematic while international assets might act as a shock absorber when being sold.

In essence, we have a number of approaches explaining why we have a decline in cross-border banking. The process is either endogenous, i.e. driven by the banking sector itself by getting rid of foreign exposure to limit domestic shocks, or exogenous by way of regulation. There is, however, a certain scarcity of bridging the finding of reduced cross-border banking to macro variables rather than Forbes’ rather off-the-cuff finding that creditors can pull back to offset problems in the domestic market while debtors may suffer negative consequences if that happens.

3. Aim and scope of this paper

This paper’s aim is to link the phenomenon of reduced linkage through cross-border lending in the G20 space to global imbalances in terms of the prevalence of current account deficits/surpluses.

We do so by testing for cointegration and causality between those two phenomena. In essence, the main question addressed is whether the two phenomena are linked and which of both is driving the other.

Beyond that we are not going into further detail, yet we think that it opens up a very interesting starting point for formulating hypotheses for a future research agenda.

4. Definitions and tests for cointegration and causality

In order to conduct the subsequent tests we first have to properly define the subject.

We define ‘global imbalances’ (labelled GI for the test statistics) as the sum of current account positions within the G20 as a percentage of national nominal GDP regardless of sign. We think this appropriate as the measure will be small whenever all countries run small surpluses or deficits but will be high when either one deficit is high and financed by a lot of small surpluses

elsewhere or vice-versa. We could describe it as a measure for the dispersion of high current account imbalances.

We define 'cross-border-banking' (labelled CBB for the test statistics) as the size of G20 banks external assets as a percentage of nominal GDP. Data on external assets in USD are taken from the BIS statistics, data on nominal GDP in USD from the IMF's world Economic Outlook statistics.

G20 is defined as the standard G20 countries which are not including Saudi-Arabia due to lack of comparable data (the country is not member of the BIS), and the EU in order to avoid double counting (the EU comprises four individual national members with France, Germany, Italy, and the UK). There is a statistical problem with the length of available data for Russia as the IMF's data on GDP are just available from 1992 onwards. This limits the amount of available data points and thus the robustness of statistical tests. Running the tests alternatively without Russia or on a pure level basis of external assets does not change the results materially.

Chart 3 shows the series according to the given definitions. Charts 4 shows test statistics for co-integration and causality for the two time-series. The finding is straightforward: cross-border banking driving global imbalances rather than the other way round.

We would therefore conclude that a trend towards less cross-border banking, regardless of whether the driving force is endogenous (Düwel et al. 2012) or exogenous (Reinhart 2012) would significantly reduce the tolerance for global current account imbalances.

5. Some further thoughts

The reduction in cross-border banking and reduced tolerance of global imbalances is of course on thing. But as important is the question what the consequences would be for the wider global macro economy.

We think there could be two areas where the reduction in cross-border banking have very important consequences.

One is the globalization in goods markets or more simply put world trade. It is at least interesting to note that coincident with the turning point to less cross-border banking the trend towards more integration – measured as an index of real OECD goods exports to real GDP – relative to the long-term trend seems to have come to a halt (chart 5).

Another is the remarkable increase in cyclical co-movements during the heyday of cross-border banking. This can be exemplified by applying an Hodrick-Prescott filter to rolling 12-month correlations between the normalized OECD leading indicators for the US and other countries. The values for these

peaked between end-2006 and mid-2008 and have since been in decline (chart 6). A relevant question would thus be if cross-border banking played a significant and causal role in facilitating this co-movement which might now be reversed.

References

Düwel, Cornelia/Frey, Rainer/Lipponer, Alexander (2012): Die Krise, die Banken und ihre Kreditvergabe im Ausland, Ökonomenstimme July 20, 2012.

European Central Bank (2012): Financial integration in Europe, Frankfurt.

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Kotz, Hans-Helmut (2012): One Money, (too) many markets, Project Syndicate, August 3, 2012.

Merler, Silvia/Pisani-Ferry, Jean (2012): Sudden stops in the euro area, Breugel Policy Contribution, 2012/06, Brussels.

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Charts

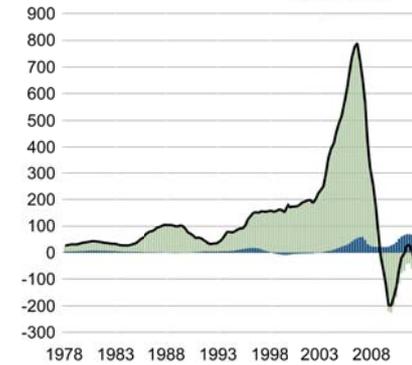
Chart 1

UIN-VW 08.10.2012 1

Major decline in cross-border banking activity since 2008

Gross external assets G20 banks

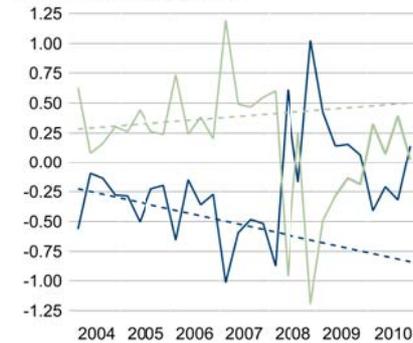
USD bn., exchange rate adjusted changes 12MMA



—G20 total • Advanced Economies • Emerging Markets
Source: Macrobond

Cross border flows G20 banks

USD bn., balance of payments



-- Inflows trend 2004 to 2008 = Inflows
-- Outflows trend 2004 to 2008 = Outflows
Source: Macrobond

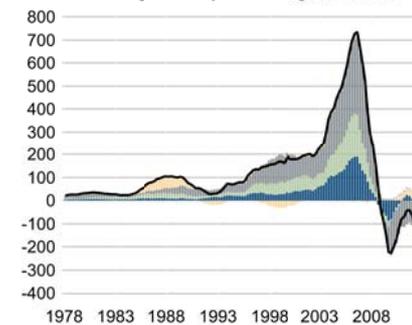
Chart 2

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Trend is not uniform: Continuing contraction within EMU, quick recovery in Emerging Markets

Gross external assets Advanced Economies banks

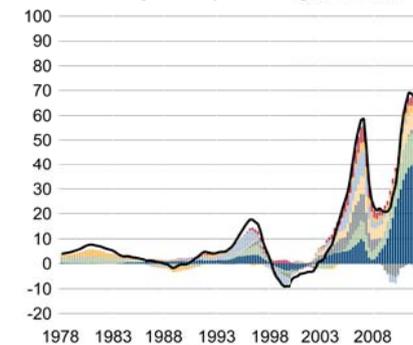
USD bn., exchange rate adjusted changes, 12MMA



—Advanced Economies total • Australia • EMU • UK
• Canada • Japan • USA
Source: Macrobond

Gross external assets Emerging Markets banks

USD bn., exchange rate adjusted changes, 12 MMA



—Emerging Markets total • Mexico • India • Brasil
• Turkey • South Korea • Russia • China
Source: Macrobond

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THE DECLINE OF CROSS-BORDER BANKING AND ITS IMPLICATIONS FOR GLOBAL CURRENT ACCOUNT
IMBALANCES**

Chart 3

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Cross-border banking and global imbalances

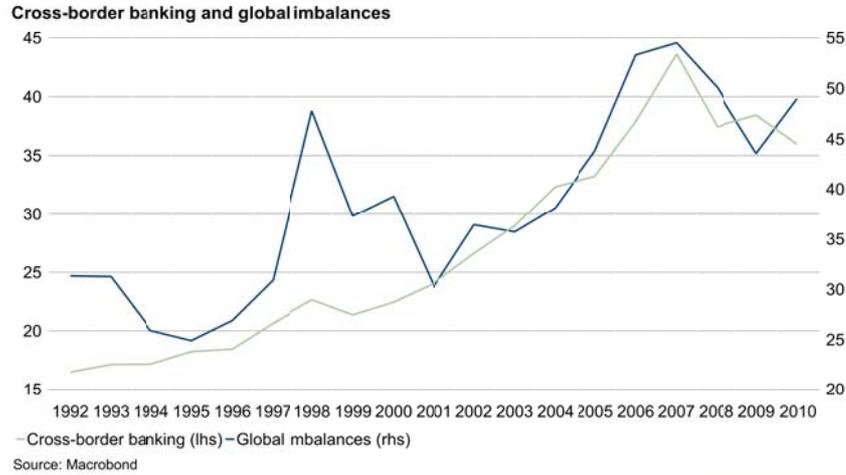


Chart 4

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Test results for co-integration and causality

Date: 04/24/12 Time: 16:00				Date: 04/24/12 Time: 16:25			
Series: CBB GI				Sample: 1992 2010			
Sample (adjusted): 1991 2010				Lags: 2			
Included observations: 20 after adjustments				Null Hypothesis: Obs F-Statistic Prob.			
Null hypothesis: Series are not cointegrated				GI does not Granger Cause			
Cointegrating equation deterministic: C @ TREND				CBB 18 0.81365 0.4646			
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth)				CBB does not Granger Cause			
				GI 2.91432 0.0882			
Dependent	tau-statistic	Prob.*	z-statistic				
CBB	-2.8521	0.4037	-12.65803				
GI	-3.534491	0.1689	-16.2358				
*MacKinnon (1996) p-values.							
Warning: p-values may not be accurate for fewer than 25 observations.							
Intermediate Results:							
Rho - 1		CBB	GI				
		-0.823308	-0.81471				
Bias corrected Rho - 1 (Rho* - 1)		-0.866212	-0.854516				
Rho* S.E.		0.233687	0.241765				
Residual variance		4.409711	21.51771				
Long-run residual variance		1.83187	23.27921				
Long-run residual autocovariance		1.21108	0.88075				
Bandwidth	NA	NA	NA				
Number of observations		19	19				
Number of stochastic trends**		2	2				
**Number of stochastic trends in asymptotic distribution							

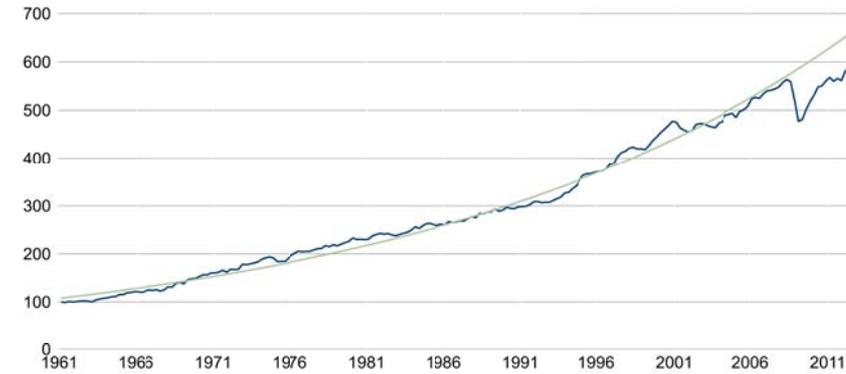
Chart 5

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Is global trade integration over?

OECD exports to GDP

index 1961 = 100



— exponential trend — actual

Source: Macrobond

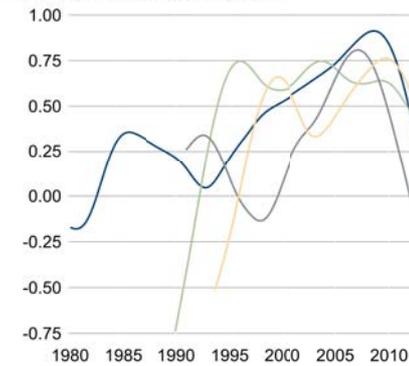
Chart 6

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Is regional cyclical divergence back on the agenda?

OECD Leading indicators

HP-filtered 12M correlation to US LEI

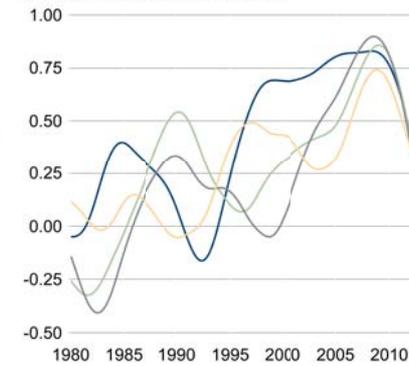


— Russia — China — Brazil — Euro Area

Quelle: Macrobond

OECD Leading indicators

HP-filtered 12M correlation to US LEI



— Spain — France — Italy — Germany

Quelle: Macrobond