



Banc Ceannais na hÉireann
Central Bank of Ireland

Eurosystem



Asynchronous monetary policies and international dollar credit

BIS-CGFS workshop on "Research on
global financial stability"

7 May 2016

Discussion by Mary Everett



Disclaimer

Opinions expressed are my own and do not necessarily represent those of the Central Bank of Ireland.



My take on the paper

- ▶ I very much enjoyed the paper
- ▶ Nice employment of BIS and “in house” micro-data
- ▶ Policy relevant in global context
- ▶ Well executed



What this paper does

- ▶ Primary research question this paper addresses
 - ▶ How do asynchronous unconventional monetary policies in the US vs euro area/Japan affect the supply of international dollar credit?
- ▶ Motivation
 - ▶ Diverging monetary policy in advanced economies and supply of global dollar liquidity.
- ▶ Contribution
 - ▶ Paper provides a theoretical and empirical understanding on how diverging UMP in advanced economies and FX swap market conditions affect the supply of international USD credit.
- ▶ Policy implications
 - ▶ Substitution effect: BoJ and ECB UMP substitute Fed liquidity to facilitate global liquidity demand.



Theoretical approach

- ▶ Theoretical framework
 - ▶ Builds on Ivashina et al. (2015 QJE) model of global bank USD denominated international credit.
 - ▶ Model predicts UMP expansion via bank lending channel has expansionary effect on international USD credit.
 - ▶ Exogenous deposit shock created by UMP induces funding compositional shift.
 - ▶ UMP is transmitted internationally through search for yield and asset portfolio allocation towards international dollar credit.



Empirical approach and main findings

- ▶ BIS dataset
 - ▶ Empirical evidence of international transmission of UMP via BLC - US UMP > home UMP
 - ▶ FX swap markets matter - increased swap costs reduces supply of USD international credit
 - ▶ And does a bank's CDS - Increased bank default risk reduces supply of USD international credit
 - ▶ VAR models suggest Fed exit from UMP, is associated with increased FX swap costs and reduction in supply of USD by Japanese and euro area banks to Asia/Pacific region.
 - ▶ Stress test - net effect of substitution effect depends on influence of FED UMP exit on FX swap market
- ▶ HKMA dataset
 - ▶ Main takeaway is both parent and branch balance sheet characteristics determine the sensitivity of international USD credit supply to US UMP.



Theoretical framework: Bank lending channel I

Purchase of government securities from a firm

- Balance sheets of central bank, bank and firm ex-ante programme implementation

Central bank	
Assets	Liabilities
Loans	Currency
Gvt securities	Deposits

Bank	
Assets	Liabilities
Liquid assets	Deposits
Illiquid assets (loans)	Equity
	Debt

Firm	
Assets	Liabilities
Cash	Debt
Equity/debt	Equity
Gvt securities	

- Balance sheets of central bank, bank and firm ex-post programme implementation

Central bank	
Assets	Liabilities
Loans	Currency
Gvt securities	Deposits
+ Gvt securities	Reserves

← Reserves

Bank	
Assets	Liabilities
Liquid assets	Deposits
Illiquid assets (loans)	Equity
	Debt
Reserves	Deposits

Deposits →

Firm	
Assets	Liabilities
Cash	Debt
Equity/debt	Equity
Deposits	

← Gvt securities

- Active bank lending channel depends on who's selling to the central bank and deposit stickiness (Carpenter et al. (2015 JBF), Butt et al. (2015 CEPR))



Theoretical framework: Bank lending channel II

Purchase of government securities from a bank by the central bank

- Balance sheets of central bank and a bank ex-ante programme implementation

Central bank	
Assets	Liabilities
Loans	Currency
Gvt securities	Deposits

Bank	
Assets	Liabilities
Liquid assets	Deposits
Illiquid assets (loans)	Equity
	Debt

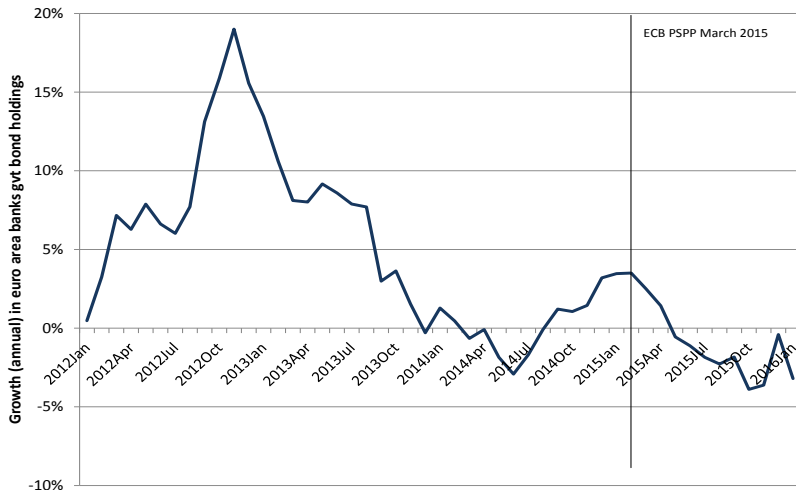
- Balance sheets of central bank and a bank ex-post programme implementation

Central bank			Bank	
Assets	Liabilities		Assets	Liabilities
Loans	Currency	\leftarrow Gvt securities Reserves \rightarrow	Liquid assets	Deposits
Gvt securities	Deposits		Illiquid assets (loans)	Equity
+ Gvt securities	Reserves		Reserves	Debt

- Bank lending channel and excess reserves



Euro area banks selling gvt securities





ECB PSPP, UMP and banks' balance sheets:

$$\Delta BS_{ijt} = \beta OFI_Depositor_{ij} * Post_t + \theta X_{ijt-1} + \gamma B_i + \delta C_j + \tau T_t + \varepsilon_{ijt}$$

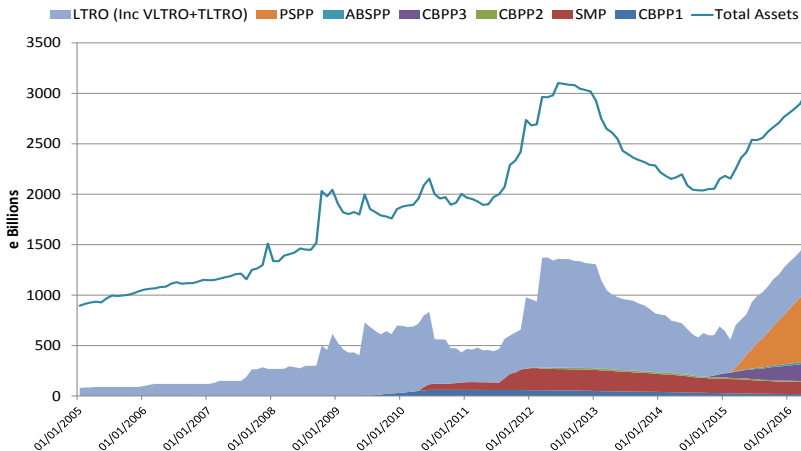
	(1)	(2)	(3)	(4)	(5)	(6)
	Δ H'hold loans	Δ NFC loans	Δ Interbank	Δ NEA	Δ LTFL	Δ LTFL (ex capital & reserves)
OFI_Depositor _{ij} *Post _t	-0.001** (0.00)	0.001 (0.00)	0.016 (0.02)	-0.003 (0.02)	0.005 (0.01)	-0.005** (0.00)
<i>Bank controls</i>						
Size	0.000 (0.00)	0.033 (0.04)	0.736* (0.40)	-0.399 (0.34)	-0.175 (0.13)	0.003 (0.00)
Liquidity	-0.004 (0.00)	0.051 (0.06)	2.392*** (0.58)	-2.929*** (0.60)	0.089 (0.08)	-0.017* (0.01)
Capital	0.000 (0.00)	0.015** (0.01)	0.088 (0.09)	-0.077 (0.07)	0.138** (0.07)	0.001 (0.00)
Deposit funding	0.010 (0.01)	-0.258* (0.14)	-0.119 (0.39)	0.254 (0.31)	-0.375** (0.18)	-0.072** (0.03)
Observations	2069	2069	2069	2069	2069	2069
R ²	0.925	0.573	0.535	0.477	0.480	0.807
Adj R ²	0.910	0.488	0.443	0.373	0.377	0.769
Bank fixed effects	Y	Y	Y	Y	Y	Y
Country*time fixed effects	Y	Y	Y	Y	Y	Y

All regressions are estimated with a constant (not reported). Standard errors are clustered by bank. Robust standard errors appear in the parentheses and ***, **, * correspond to significance at the one, five and ten per cent level of significance, respectively.

Source: Everett, M (2016). Quantifying the effects of the ECB's Public Sector Purchase Programme on banks, Central Bank of Ireland, mimeo.



UMP instrument type: ECB balance sheet





Comments: Minor data issues

- ▶ Clearer definition of global bank (foreign offices (branches & subsidiaries (physical network) + cross-border assets/liab?)
- ▶ BIS LBS by nationality (June to March 2014 - possible to update, end-2015 data available)
- ▶ The 12 “core” global bank nationalities restricted to those with UMP and largest claims? Different sample based on size alone - [Chinese Taipei, India & Australia]
- ▶ Definition of quarterly growth rate - derived from flows or delta stocks
- ▶ Asia/Pacific region - include list of countries.
 - ▶ Motivate the focus on this region - big borrowers? Is this just representative of EMEs minus Brazil? (McCauley, McGuire, and Sushko (2015 BIS WP))
- ▶ Acknowledge bond investors are supporters of USD credit to non-bank borrowers outside the US



Determinants of FX funding and lending

- ▶ Determinants of foreign currency funding (McCauley, McGuire & Sushko (2015a,&b BIS), Krogstrup and Tille (2015 SNB))
- ▶ What about bonds?
- ▶ Cost differentials - not just UMP
- ▶ The rise of the reverse yankees
- ▶ Assume banks responses to monetary policy actions as measured by changes in central banks balance sheets are symmetric - what about regulation?



Conclusions

- ▶ Very relevant paper for policy makers - expansion of period reviewed in future draft would be informative
- ▶ Policy implications - Structured network of currency swap agreements to mitigate global volatility and risks of international currency liquidity shortage during asynchronous UMP
- ▶ Look very much forward to enjoying next draft!