

Are banks and markets true alternatives for financing the economy?

Laurent Grillet-Aubert

and

Pierre-Emmanuel Darpeix *

AMF (French financial markets regulator)

[special issue of *Réalités Industrielles*, August 2018]

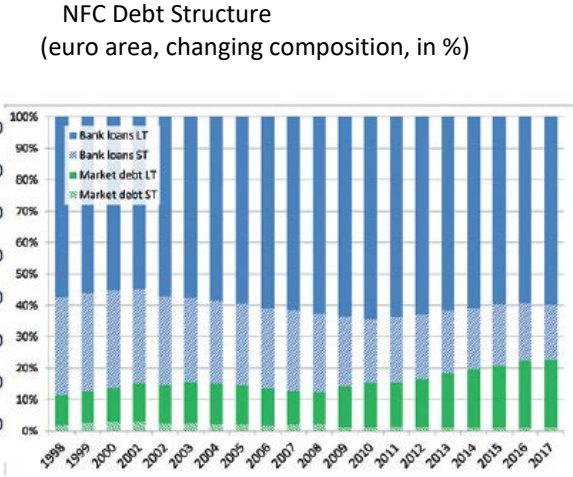
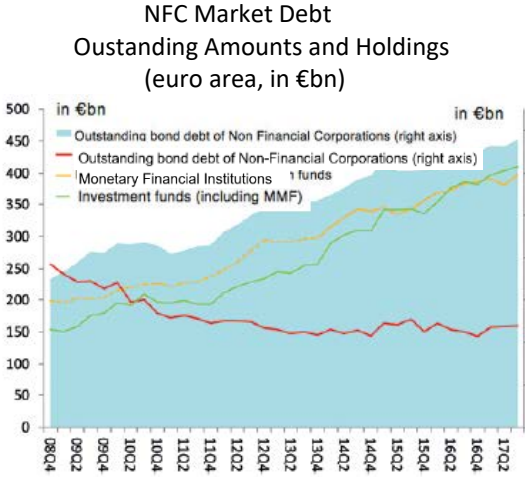
Abstract:

In contrast with bank lending, financial markets theoretically allow for the disintermediated allocation of savings for investment. Post-financial crisis policies such as the Capital Markets Union (CMU), the reform of securitisation, expansionary monetary policies, etc., have bolstered the reliance on market-based financing, particularly for debt financing. At the same time, these policies have questioned the optimal financing allocation and the resilience of the financial system. However, the divide between banks and markets, the latter viewed as “non-banks”, is too simplistic. To increase the efficiency of the system and improve risk management, it is necessary to consider all sources of financing (including equity), as well as thoroughly take into account the interconnected networks and intermediated channels between banks and non-banks.

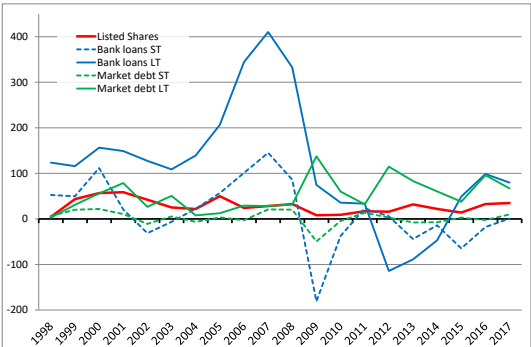
* The views expressed in this article reflect the authors' opinion and not necessarily those of the AMF.

Financial markets — and especially corporate debt markets — have experienced solid growth

The growth of financial markets is illustrated by a surge in corporate bond issuances by non-financial corporations (NFCs). Since 2008, they have risen faster than bank lending. These net emissions have partly offset shrinking bank lending to NFCs in the euro area since 2012. In the past two years, they have actually matched bank lending to NFCs in volume.



Source: ECB, Securities issues database and MFI aggregated balance sheet database. Calculations by AMF.
Net securities issuances and loans contracted by NFCs
(euro area, changing composition, in €bn)



Source: ECB, Securities issues database and MFI aggregated balance sheet database.

Bank and market debt are often only partly interchangeable as they do not always have the same targets. Debt securities issuers are usually large corporations or mid-size companies, much less often SMEs. Current developments such as securitization, loan origination by investment funds and the CMU may however change the picture. In the euro area, the structure of the liabilities of NFCs also reveals a certain complementarity between market financing and bank financing. Tax treatment of equity financing (listed shares) is usually less favourable. If debt financing and equity financing were truly tax neutral (Modigliani-Miller Theorem), companies would be encouraged to bolster their equity capital and reduce their leverage, investors would be more inclined to invest in shares and banks would be incentivised to increase their regulatory capital, which would in turn boost the resilience of the financial system (International Monetary Fund, 2016¹). Lastly, outstanding sovereign debt has also been on the rise, and partly contributes to meeting the "endogenous" demand for safe assets within the financial system, as collateral in derivatives and lending transactions (secured securities lending and repo transactions).

Bank financing and market financing: complementary and difficult to differentiate

Post-crisis reforms² have not established a complete separation between banking and market activities.³ In fact, the Originate-to-Distribute model for the sale of bank loans on the markets was even brought back, for example in Europe, by adopting a new regime of simple and transparent securitisations.

The Financial Stability Board (FSB), which provides global monitoring of shadow banking, i.e., credit activities⁴ conducted by non-banking entities, points to growing balance sheets, particularly for investment funds.⁵ The analysis is hampered by the residual nature of the "other financial institutions"⁶ sector, as defined in the European System of Accounts, and by the lack of clarity as to the activity of certain entities.⁷ However, it reveals how critical it is to assess the risk borne by non-bank entities, particularly in terms of leverage and liquidity.

¹ This reference points in particular to the bias towards debt, which stems from the tax deductibility of bond coupons.

² Under the aegis of the Bank for International Settlements (BIS) and the Basel Committee.

³ On 24 October 2017, under pressure from various national and European initiatives, the European Commission withdrew a bank separation proposal known as the Liikanen report. The 1930 *Glass Steagall Act*, establishing a strict separation in the United States, was repealed in 1999.

⁴ The FSB's initial goal was to cast a wide net and target a wide range of activities as a first step, then to focus on high-risk activities.

⁵ For a discussion of the systemic nature of non-banking entities, see FSB (2015a), FSB (2015b) and FSB (2017).

⁶ "Other financial institutions" (Sector S.12 of the European System of Accounts) is the residual category obtained after excluding monetary financial institutions (Subsectors S.121 and S.122), and insurance corporations and pension funds (S.128 and S.129). The entities in the shadow banking sector include money market funds (S.123); non-money market funds (S.124); some "other financial intermediaries" (S.125) such as dealers, financial vehicle corporations, some specialized corporations and financial corporations engaged in lending, such as leasing companies, but not CCPs. They also exclude financial auxiliaries (S.126) and captive financial institutions (S.127).

⁷ E.B. Goksu and R.M.Heath (2017) offer a review of the data gaps and how they might be filled. In Europe, see L. Grillet-Aubert, J.B. Haquin, C. JACKSON and C. Weistroffer (2016); A.M. Agresti and R. Brence. (2017).

Owing to the high financial intermediation rates,⁸ the growing interpenetration of banking and non-banking activities, and the lengthening of the channels of intermediation, analysing bank and non-bank risks separately proves of little value. Cetorelli *et al.* (2014), Chernobaiy *et al.* (2016) and Flood *et al.* (2017) highlighted the solid growth of bank holding companies, both in size and complexity, and showed how their numerous subsidiaries covered a wide range of activities within the financial sector. Cetorelli (2014) also noted that similar conglomerates were formed by non-bank entities.

Assessing the efficiency of market-based financing beyond new issuances raises the question as to who eventually holds the securities circulating on the market, i.e., who is financing whom? Asset management, especially institutional asset management, now plays a key role in the allocation of savings. It allows investors to diversify their investments to mitigate market risk exposure and take advantage of economies of scale, while allocating needed funds to finance businesses. This is particularly crucial when access to credit is limited, such as in the case of risky or long-term investment projects.

A close examination of the intermediation chains reveals nonetheless a number of practical barriers to identifying end-investors. Achieving transparency in financial intermediation, as advocated by Boutillier *et al.* (2007), remains challenging, and makes it difficult to assess the aggregate value of outstanding amounts (IMF, 2014; Zucman, 2013). In-depth analysis can help the regulator better evaluate risk transfers, governance issues (Azar *et al.*, 2017) and the efficiency of intermediation.

A resilient financial system requires a global and integrated approach that is also tailored to market risks

Structural and macro-prudential reforms have boosted the resilience of the banking system and of market and post-market infrastructure (notably CCPs⁹). The strengthening of prudential requirements has significantly impacted bank lending activities, and therefore boosted market intermediation. In parallel, various European directives and regulations¹⁰ have brought changes to the way investment services providers operate, namely by establishing risk management procedures according to the specific activities involved. Lastly, new counter-cyclical tools aim to lessen the occurrence and the effects of credit bubbles. To account for these sectoral developments, it appears necessary to design an overall framework for evaluating systemic risk that is less strictly focused on bank credit (Adrian, 2018; D’Hoir and Ophèle, 2018).

⁸ Between 70 and 90% in most developed countries under review, according to Boutillier *et al.* (2007).

⁹ V. Bignon and G. Vuillemeys (2017) examine a CCP bankruptcy case. According to E. Farhi and J. Tirole (2017), "prudential supervision of banking goes hand in hand with (...) incentivized migration to CCPs (...)".

¹⁰ These include, *inter alia*, the MIFID II directive on financial instruments markets, the AIFM directive on alternative management, the EMIR regulation on derivatives and central counterparties, the SFTR regulation on securities transactions and the CSDR regulation on central securities depositories.

It is especially crucial to adequately measure the liquidity and leverage of market intermediaries and their related risks. Banking indicators are however not directly applicable. Market liquidity measures real-time costs (bid/offer spreads), quantities offered (depth) and the impact of transactions on asset prices. Still, an overall system of indicators that aggregates these various dimensions and allows for comparisons across sectors has yet to be built (Idier *et al.*, 2009¹¹). Regarding debt leverage, the assessment of off-balance sheet exposures or of exposures related to the use of secured and derivatives financing — the "synthetic" exposures typical of investment funds — is under review.¹² The macro-prudential use of a leverage ratio for investment funds would also need to be considered accordingly.¹³

A review of the entire network structure must supplement the analysis of individual entities and activities. FSB (2018) assessed the bilateral sectoral exposures of banks and non-banks. Banks' exposures to OFIs (Other Financial Institutions) generally account for less than 10% of their liabilities and less than 5% of their assets. OFIs' exposures to banks, however, are greater and often reach 10 to 20% of assets and of liabilities. Moreover, it is necessary to examine the specificities of investment fund networks (Benhami *et al.*, 2018). Analyses generally run into three pitfalls: a) data quality or granularity (for example regarding the liabilities of investment funds); (b) the modelling of liquidity shocks, beyond the mere consideration of solvency (the default cascades of Eisenberg and Noe, 2001; Acemoglu *et al.*, 2013); and (c) cross-border exposures¹⁴ and exposures related to derivatives and secured financing (leverage and hedging).

An overall assessment of macro-prudential risks must account for the specificities of market activities. It could for example explore the use of macro-stress tests based on an in-depth analysis of interconnections and vulnerabilities (HCSF, 2018; Grillet-Aubert, 2018). Using instruments to manage the leverage and liquidity risks of markets and investment funds *ex ante* or even in a counter-cyclical manner, still remains a distant prospect. Macro-prudential policies will therefore in the short term rely on a flexible *ex post* use of structural tools such as circuit-breakers, mechanisms allowing managers to restrict fund share redemptions,¹⁵ etc.

¹¹ EBA (2013) identified several categories of liquid assets, which illustrates the challenges of an analysis across different asset classes.

¹² Z. Pozsar (2014) notes: "(...) developments should be systematically captured in a new set of Flow of Collateral, Flow of Risk and Flow of Eurodollar satellite accounts to supplement the Financial Accounts".

¹³ Mandated by FSB (2017), IOSCO is examining the issue. In Europe, ESRB (2018) mandated the ESMA to implement the provisions of Article 25 of the AIFMD directive, allowing the authorities to restrict the leverage of alternative funds.

¹⁴ J. Abad, M. D'Errico, N. Killeen, V. Luz, T. Peltonen and T. URBANO (2017) nonetheless show the magnitude of the exposures: "EU banks have significant exposures to shadow banking entities globally and, in particular, to entities domiciled in the US, which represent approximately 27% of the total exposures".

¹⁵ See recent recommendations issued by IOSCO (2018a, b); ESRB (2018).

Conclusion

Market-based financing is growing, especially for non-financial corporate debt. Primarily intended for large companies, this type of financing is a partial alternative to bank loans, but often ends up as complementary to bank-based financing. Furthermore, new developments in financial intermediation and the role of non-bank intermediaries in granting credit have blurred the traditional distinction between banks and markets. In this context, assessing the optimality of this mode of financing of the economy – in terms of efficiency, risk management, alignment of interests, governance, etc. – first requires to better understand who finances whom, and then to precisely identify the various links in the intermediation chains. To ensure the resilience of the system, it is necessary to develop sectoral tools adapted to the nature of the (emerging) risks, while developing a comprehensive overview of the capacity of the financial system and its sectors to withstand and allocate risks, including systemic risks.

Bibliography

Abad, J., D’Errico, M., Killeen, N., Luz V., Peltonen, T., Portes, R. and Urbano T. (2017) *Mapping the interconnectedness between EU banks and shadow banking entities*. NBER Working Paper 23280.

Acemoglu, D., Ozdaglar, A. and Tahbaz-Salehi, A. (2013) *Systemic risk and stability in financial networks*. NBER Working Paper 18727.

Adrian, T. (2018) ‘Shadow banking and market-based finance’, *Shadow banking: Financial intermediation beyond banks*, Edited by E. Jokivuolle, SUERF-The European Money and Finance Forum. 2018/1.

Agresti, A.M. and Brence, R. (2017) *Statistical work on shadow banking: development of new datasets and indicators for shadow banking*. BIS IFC conference on Data needs and statistics compilation for macro-prudential analysis. 11 December 2017.

Benhami, K., Le Moign, C., Salakhova, D. and Vinet, A. (2018) *Interconnections between the French asset management sector and the rest of the French financial system*. Haut Conseil de la stabilité financière.

Bignon, V. and Vuillemeys, G. (2017) *The failure of a clearinghouse: Empirical evidence*. Bank of France Working paper 638.

BIS BCBS (2017), *Identification and management of step-in risk*. October 2017.

Borio, C., Drehman, M. and Tsatsaronis, K. (2012) *Characterising the financial cycle: don't lose sight of the medium term!*. BIS Working Paper 380.

Boutillier M., Levy, N. and Oheix, V. (2007) *Financial intermediation in developed countries: Heterogeneity, lengthening and risk transfer*. Working Paper EcoX 22.

Bouveret, A. (2017) *Liquidity stress tests for investment funds: A practical guide*. IMF Working Paper 17/226.

Breuer, P. (2000) *Measuring off-balance sheet leverage*. IMF Working Paper 00/202.

Cetorelli, N. (2014) *Hybrid intermediaries*. FRBNY Staff Research 705, December 2014.

Cetorelli, N., McAndrews, J. and Traina, J. (2014) *Evolution in bank complexity*. FRBNY Economic Policy Review, December 2014.

Chernobai, A., Ozdagliz, A.K. and Wang, J. (2016) *Business Complexity and Risk Management in US Bank Holding Companies*. Working Paper.

Claessens, S. and Ratnovski, L. (2014) *What is shadow banking?*. IMF Working Paper 14/25.

CNIS (2010) *Rapport sur les statistiques sur les groupes financiers*.

Crisóstomo, R. and Peralta, G. (2017) *Financial contagion with spillover effects: A multiplex network approach*. ESRB Working Paper 32.

Davanne, O. (1998) *Instabilité du système financier international* ; Report, Conseil d'Analyse économique.

De Mooij, M., Keen, M. and Orihara, M. (2013) *Taxation, bank leverage, and financial crises*. IMF Working Paper 13/48.

D'Hoir, J. and Ophèle, R. (2018) 'Comment dépasser le concept de shadow banking', *Revue de la Stabilité financière*. Banque de France, April 2018.

EBA (2013) *Report on appropriate uniform definitions of extremely high quality liquid assets (extremely HQLA) and high quality liquid assets (HQLA) and one operational requirements for liquid assets under section 509 (3) and (5) CRR*.

EBA (2015) *Guidelines on limits on exposures to shadow banking*. December 2015.

Eisenberg, L. and Noe, Th. (2001) 'Systemic risk in financial systems'. *Management Science* 47-2.

ESRB (2018) *Recommendation on leverage and liquidity in investment funds*. February 2018.

Farhi, E. and Tirole, J. (2017) *Shadow Banking and the Four Pillars of Traditional Financial Intermediation*. NBER WP 23930.

Flood, M. D., Kenett, D.Y., Lumsdaine, R.L. and Simon, J. (2017) *Complexity of Bank Holding Companies*. OFR Working Paper 2017-03.

IMF (2014) *Global Financial Stability Review*. Chapter 2, table 2.1. April 2014.

IMF (2016), *Tax Policy, Leverage and Macroeconomic Stability*. October 2016.

FSB (2015a) *Assessment methodologies for identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions (NBNI G-SIFIs)*.

FSB (2015b) *Next Steps on the NBNI G-SIFI Assessment Methodologies*.

FSB (2017) *Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities*. January 2017.

FSB (2018), *Global shadow banking monitoring report 2017*. March 2018.

Goksu, E.B. and Heath, R.M. (2017) *Financial stability analysis: What are the data needs*. IMF Working Paper 17/153, July 2017.

Goodhart, C. (2008) 'The boundary problem in financial regulation'. *National Institute Economic Review*. Vol. 206, July 2008.

Grillet-Aubert, L., Haquin, J.-B., Jackson, C. and Weistroffer, C. (2016) *Assessing shadow banking in the EU*. ESRB Occasional Paper 10, July 2016.

Idier, J., Jarret, C. and Le Fol, G. (2009) 'How liquid are markets: an application to stock markets'. *Bankers, Markets and Investors*. Vol. 103, Nov. – Dec. 2009.

IOSCO (2018a) *Recommendations for liquidity risk management for Collective Investment Schemes*. February 2018.

IOSCO (2018b) *Open-ended fund liquidity and risk management - Good practices and issues for consideration*. February 2018.

Langedijk, S., Nicodeme, G., Pagano, A. and Rossi, A. (2015) *The corporate debt and the cost of banking crises*. CEPR Discussion Paper 10616, July 2015.

Morgan Stanley and Oliver Wyman (2010) *The Outlook for Global Wholesale and Investment Banking*". March 2010.

Pozsar, T. (2014) *Shadow Banking: The Money View*. OFR Working Paper 2014-04, July 2014.

Roe, M. and Troege, M. (2017) *Containing Systemic Risk by Taxing Banks Properly*, ECGI Law WP317, November 2017.

The Economist (2015) 'The Great Distortion - Tax-Free Debt', 16 May 2015.

Turner, A. (2014) *Escaping debt addiction*. Presentation at Goethe Universität Center for Financial Studies. Frankfurt am Main.10 February 2014.

Zucman, G. (2013) 'The missing wealth of nations: Are Europe and the U.S. net debtors or net creditors?'. *Quarterly Journal of Economics*. Vol. 128-3, August 2013.