

## **Benoît Cœuré: On the optimal size of the financial sector**

Speech by Mr Benoît Cœuré, Member of the Executive Board of the European Central Bank, at the ECB Conference “The optimal size of the financial sector”, Frankfurt am Main, 2 September 2014.

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Ladies and gentlemen,

Thank you very much for giving me the opportunity to speak here today.

The recent global financial crisis has made us rethink the contribution of the financial sector to the real economy. Today, I will talk about how our understanding of the finance and growth nexus has changed over the past years, and how policy-makers in Europe – in particular, here at the European Central Bank (ECB) – have used this knowledge.

### **Introduction**

In the years prior to the financial crisis, the empirical literature on finance and growth accumulated a substantial body of evidence suggesting that financial sector deepening is a key component of the economic development process. This appeared to be true, both in respect of emerging markets and industrialised economies.<sup>1</sup> Encouraged by such evidence, policy-makers did not question the ability of the financial sector to innovate and channel funds to their most socially productive uses. In the words of the Federal Reserve’s then Chairman Alan Greenspan: “[...] our financial system, whose job it is to ensure the productive use of physical capital, has been such a crucial part of our overall economy, especially over the past two decades. It is the signals reflected in financial asset prices, interest rates, and risk spreads that have altered the structure of our output in recent decades towards a different view of what consumers judge as value.”<sup>2</sup>

Yet, economies with large, dynamic, and complex financial sectors are not immune to severe macroeconomic contractions. In fact, the banking crises literature provided some evidence on a causal link between rapid credit growth and systemic banking distress long before the emergence of the global financial crisis.<sup>3</sup> Furthermore, the output costs of severe banking crises have been found to be of a large magnitude.<sup>4</sup>

Are these two observations contradictory? Not necessarily – both are related to well-understood economic mechanisms. On the one hand, mature financial industries ensure the efficient allocation of productive resources, supporting long-term growth. On the other hand,

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<sup>1</sup> See, e.g., Rajan, R., and L. Zingales, 1998, Financial dependence and growth, *American Economic Review* 88, 559–586; Hartmann, P., Heider, F., Papaioannou, E., and M. Lo Duca, 2007, The role of financial markets and innovation in productivity and growth in Europe, ECB Occasional Paper No 72. For a thorough review, see Levine, R., 2005, Finance and growth: Theory, evidence, and mechanisms, in *The Handbook of Economic Growth*, eds. P. Aghion and S. Durlauf, North Holland: Amsterdam.

<sup>2</sup> Greenspan, A., 1998. “Is there a new economy?” Remarks at the Haas Annual Business Faculty Research Dialogue, University of California, Berkeley, 4 September.

<sup>3</sup> Kaminsky, G., and C. Reinhart, 1999, The twin crises: The causes of banking and balance-of-payments problems, *American Economic Review* 89, 473–500.

<sup>4</sup> Laeven, L., and F. Valencia, 2013, The real effects of financial sector interventions during the crisis, *Journal of Money, Credit and Banking* 45, 147–177.

excessive leverage can throw the financial system into a crisis resulting in deep and abrupt economic downturns.<sup>5</sup>

The crisis has made us understand that the size of the financial sector can exacerbate the trade-off between economic efficiency and financial stability. While finance per se is necessary for growth, an oversized financial industry can be detrimental to real economic activity. Of course, the question of what constitutes an “oversized” financial sector is a complex one, and the collection of papers on the programme of this conference makes great progress towards providing an answer.

Recent changes to the global regulatory architecture, particularly regarding the banking union in Europe, are in part aimed at mitigating the negative effects that a large and complex modern financial industry can have. These changes should be implemented in a way that avoids eliminating the positive impact of financial services on growth and tackling financial complexity with overly complicated and excessive regulatory interventions. In addition, policy-makers should be increasingly aware of the importance of overcoming fragmentation in European capital markets and of achieving a single market for capital.

### Identifying the problem

As regards the link between finance and growth, for a long time, it was common to say that finance affects growth in a positive, monotonic way, as if more is always better. Recent empirical evidence, however, has qualified this conventional wisdom. The analysis has now been refined to show that, beyond a threshold size, the effect of finance on long-term economic growth can weaken and even become negative.<sup>6</sup>

Why is the effect of finance on growth non-linear? Recent academic research puts forward at least five possible explanations.

First, the financial sector has gradually extended its scope beyond the traditional activity of intermediation towards so-called “non-intermediation” financial activities, such as trading. The evidence strongly suggests that banking strategies which are heavily geared towards generating non-interest income are riskier.<sup>7</sup> This change in focus is naturally associated with a higher potential for systemic crisis. Moreover, as a result, it has become increasingly more difficult to come up with empirical measures of financial services that are consistent with what modern-day finance actually does. This is especially true for high-income economies whose financial sectors are particularly sophisticated.

Second, the financial system can grow too large relative to the real economy because it can extract excessively high informational rents and pay excessively high wages. For example, while in the wake of World War II the financial sector accounted for less than 2.5% of total labour income, in 2006, this share was 8.3%. As a result, too much young talent can be reallocated towards the financial industry.<sup>8</sup> To put it more bluntly: the world before the crisis

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<sup>5</sup> Brunnermeier, M., and Y. Sannikov, 2014, A macroeconomic model with a financial sector, *American Economic Review* 104, 379–421.

<sup>6</sup> Rioja, F., Valev, N., 2004, Does one size fit all? A reexamination of the finance and growth relationship, *Journal of Development Economics* 74, 429–447; Shen, C., Lee, C., 2006, Same financial development yet different economic growth – why?, *Journal of Money, Credit and Banking* 38, 1907–1944; Arcand, J.-L., Berkes, E., and U. Panizza, 2012, Too much finance?, IMF Working Paper 12/161; Manganelli, S., and A. Popov, 2013, Financial dependence, global growth opportunities, and growth revisited, *Economics Letters* 120, 123–125; Beck, R., Georgiadis, G., and R. Straub, 2014, The finance and growth nexus revisited, *Economics Letters*, forthcoming.

<sup>7</sup> De Jonge, O., 2010, Back to the basics in banking? A micro-analysis of banking system stability, *Journal of Financial Intermediation* 19(3), 387–417, Demircuc-Kunt, A., and H. Huizinga, 2010, Bank activity and funding strategies: The impact on risk and return. *Journal of Financial Economics* 98, 626–650, or Hahm, J.-H., H.S. Shin and K. Shin (2013), Noncore bank liabilities and financial vulnerability, *Journal of Money, Credit and Banking* 45(s1), 3–36.

<sup>8</sup> Tobin, J., 1984, On the efficiency of the financial system, *Lloyds Bank Review* 153, 1–15; Philippon, T., 2010, Financiers vs. engineers: should the financial sector be taxed or subsidized?, *American Economic Journal*:

was one where there were too many bankers and too few engineers. This particular type of “brain drain” can harm the overall productivity of the real economy. It can be highly inefficient if the social returns to financial services are lower than their private returns, which is probably the case when the financial sector is very large to begin with.

Third, an expansion in the financial sector can signal a misallocation of credit to less productive economic activities. Textbook models of financial intermediation usually assume the mobilisation of savings for entrepreneurial credit. However, much of the spike in financial intermediation before the crisis was associated with household credit, and mostly with mortgage credit. In fact, in a number of countries (e.g. Canada, Denmark and the Netherlands), loans to households accounted for more than 80% of overall bank lending. In most cases, an additional euro of mortgage lending contributes less to overall economic growth than an additional euro of credit to a young innovative company.

Fourth, an oversized financial sector can reflect increased risk-taking. For example, it has been argued that increased bank competition can erode individual banks’ franchise values. This, in turn, can encourage banks to engage in imprudent behaviour.<sup>9</sup> Competitive behaviour can increase the resilience of the system, while a competitive market structure can weaken it.<sup>10</sup> A similar logic applies to an environment where liquidity is abundant. This can result from a very accommodative monetary policy (as outlined in the “risk-taking” view of monetary policy transmission,<sup>11</sup>) from a leveraged financial system with high inside money creation,<sup>12</sup> or from a combination of both. Such an environment exacerbates moral hazard problems in the banking sector, increasing banks’ appetite for risk. Meanwhile, increased risk-taking makes both individual banks and the banking sector as a whole more fragile, increasing the probability of a systemic meltdown and thereby harming long-term growth.

Last but not least, there is a link between the size of the financial sector and its complexity. It is likely that the complexity and interconnectedness of financial institutions increases (presumably in a non-linear way) with the size of the overall financial system, making it more difficult for regulators to understand what is going on within its bounds. Policy-makers have allowed the financial system to balloon without availing themselves of the instruments to understand its complexity and monitor the propagations of shocks.<sup>13</sup> We cannot afford to be caught off guard again, simply guessing where the real problems may lie.

## The policy response

Now that we have identified the problem, what is the solution? In the wake of the financial crisis, the global regulatory architecture has evolved to meet the challenge posed by the financial sector’s potential to generate economic distress. For one, we have proceeded towards a more integrated governance of the banking sector in Europe. The first components of a genuine banking union – the Single Supervisory Mechanism and the Single Resolution Mechanism – are already being implemented. By aiming to make the banking activities

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Macroeconomics 2, 158–182; Bolton, P., Santos, T., and J. Scheinkman, 2011, Cream skimming in financial markets, NBER Working Paper 16804; Kneer, C., 2013, The absorption of talent into finance: Evidence from US banking deregulation, DNB Working Paper 391.

<sup>9</sup> Hellmann, T., Murdock, K., and J. Stiglitz, 2000. Liberalization, moral hazard in banking, and prudential regulation: Are capital requirements enough? *American Economic Review* 90, 147–165.

<sup>10</sup> Schaeck, K., Cihak, M., and S. Wolfe, 2009. Are competitive banking systems more stable? *Journal of Money, Credit and Banking* 41, 711–734.

<sup>11</sup> Jimenez, G., Ongena, S., Peydro, J.-L., and J. Saurina, 2014. Hazardous times for monetary policy: What do 23 million loans say about the impact of monetary policy on credit risk-taking? *Econometrica* 82, 463–505.

<sup>12</sup> Brunnermeier, M., and Y. Sannikov, 2014. The I theory of money. Princeton University working paper.

<sup>13</sup> See Haldane, A., and V. Madouros, 2012. The dog and the frisbee. Federal Reserve Bank of Kansas City 36th Economic Symposium, 109–159.

conducted in Europe safer, the banking union implicitly touches on some of the aspects of “oversized finance” in general, and “overbanking” in particular.<sup>14</sup>

We need to be mindful of the fact that the macro problem (the financial sector being “too big”) and the micro problem (individual financial institutions being “too big”) are not necessarily identical. Even if the financial sector is small relative to the real economy, it may be comprised of banks whose incentives are misaligned due to “too big to fail” considerations. This can lead to excessive risk-taking and inefficient credit growth and has inspired recent changes to regulation and prudential policy. For example, Basel III includes a revised leverage ratio framework that has the goal of preventing banks from operating with excessive leverage. This should reduce the discrepancy between social and private returns in banking and limit the rents extracted by the financial sector. A similar role is envisaged for recent rules on liquidity coverage. The size of individual banks is also a relevant consideration (albeit not the primary one) when it comes to measuring their importance in terms of systemic risk and determining their contribution to the Single Resolution Fund. Finally, some recent suggestions for regulatory reform propose separating activities that are currently implemented by commercial banks under “one roof”, limiting the size of individual banks and at the same time increasing the relative importance of traditional financial intermediation activities.

Timely data reporting is another critical issue because policy-makers need to know in real time what is going on inside the system. The Financial Stability Board’s work on data harmonisation and on filling data gaps<sup>15</sup> is critical in this respect.

Finally, Europe needs to move towards the re-creation of a genuine single market for capital. By this, I do not mean the convergence of prices for euro-denominated financial assets. The crisis provided a painful reminder of the limitations of such measures of financial integration. What I have in mind instead is “genuine” integration, whereby financial resources are allocated with reference to the risk-return relationship and not to location – a process which would improve economic diversification in that it would cushion both entrepreneurs and households against local shocks.<sup>16</sup> This should naturally reduce the negative impact of an overextended financial sector by decreasing the probability of inefficient booms and severe busts.

How can a single market for capital be realised? In addition to the better integration of governance that I have just talked about, the process rests on the improved integration of retail banking and capital markets. As regards retail banking, even before the crisis, we at the ECB acknowledged that this is one of the least integrated markets in the euro area.<sup>17</sup> The crisis undermined the process of integration by prompting a further retrenching of retail banking services within national borders. The new regulatory and supervisory framework has the potential to steer us towards deeper cross-border integration, and, in the process, to address Europe’s over-reliance on large banks. Evidence before the crisis suggested that the integration of retail lending markets may be a more efficient mechanism for cross-border risk-sharing than secured or unsecured interbank markets. It is important that the banking union

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<sup>14</sup> Is Europe overbanked? Report of the Advisory Scientific Committee of the European Systemic Risk Board, No 4/June 2014.

<sup>15</sup> Please refer to the Financial Stability Board data gaps initiative and the consultation paper of the Aggregation Feasibility Study Group on approaches to aggregate OTC derivatives data, February 2014.

<sup>16</sup> It should be noted, however, that financial integration can foster the specialisation of production across countries because financial intermediaries having a comparative advantage in lending to local industries can “reinsure” across borders. This can be more profitable but increases the exposure of domestic intermediaries to local shocks as well as cross-border contagion risk. The overall effect is ambiguous and can be positive under some assumptions. See Fecht, Grüner, H.P., and P. Hartmann, 2012. Financial integration, specialization and systemic risk, *Journal of International Economics*.

<sup>17</sup> European Central Bank “Financial Integration in Europe”, April 2008.

and the regulation against the “too big to fail” problem effectively encourage banks to reach an optimal size relative to the European market – that is, large enough to operate across borders and diversify risks, but small enough to be resolved with the resources of the Single Resolution Fund. This would be Europe’s best contribution in terms of improving the trade-off between financial stability and economic efficiency.

Regarding capital market integration, things can only improve in the future, given Europe’s high reliance on bank funding. It is likely that the ongoing deleveraging of the global banking sector will stimulate the development of non-bank financial intermediation in Europe. As a sign of things to come, the decline in bank credit is already to some extent compensated for by an increased issuance of corporate bonds. And the recent initiatives to create an active market for high-quality securitisation<sup>18</sup> will help further in this direction.

## **Conclusion**

Let me conclude.

The global financial crisis was, to a large extent, driven by an oversized and overleveraged financial sector whose risk-creating capacity was left unchecked by regulators and supervisors. We believe that we have learned our lesson and the recent flurry of policy initiatives reflect, in large measure, our new understanding of the destabilizing role of an oversized financial sector.

The academic literature, as well as our own experience in the crisis, has proven that the size of the financial sector can exacerbate the trade-off between economic efficiency and financial stability. I hope that the regulatory reforms that are now being enacted and the recent changes in the European supervisory architecture, combined with the renewed push for a single market for capital in Europe, will go some way in addressing this trade-off.

Thank you very much for your kind attention.

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<sup>18</sup> Bank of England and European Central Bank, 2014. The case for a better functioning securitisation market in the European Union, Joint Discussion Paper, 30 May.