

SUERF/DNB/Rabobank Conference & 2013 SUERF Annual Lecture

The value of banks & their business models to society



SUERF/ De Nederlandsche Bank / Rabobank Conference Report
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By **Leontine Treur (Rabobank)**



(l-r): Annual Lecturer Lex Hoogduin; Session 1: Teunis Brosens, Michael Koetter, Frank Lierman and Harry Huizinga

Banks play a central role in the functioning of the economy. Not only do they allocate financial resources, they also collectively create money in the process of granting loans. In this way, they have a considerable impact on the type of activities that are financed in society. During the financial crisis, it became clear that the banking sector at large was not sufficiently stable and customer-focused. Since then, banks and regulators alike have been busy reviewing bank business models, and several committees have been installed to investigate the desired scale and scope of banking activities.

This was the backdrop against which the joint SUERF/DNB/Rabobank conference was organized. The event hosted by the Duisenberg school of finance, attracted over one hundred registered participants from ten different European countries. The conference started off with the 2013 SUERF Annual Lecture delivered by **Lex Hoogduin** and ended after a keynote address by **Aerdt Houben**, and a panel session. In addition, six invited speakers presented their work in two themed sessions, providing the audience with views from academia, central banks, and commercial banks.

SUERF President **Urs Birchler** welcomed the participants. As the conference took place at the Duisenberg School of Finance, he recounted his first meeting with Wim Duisenberg, who immediately struck him as frank and open/direct. Birchler expressed his hope that the conference would be characterized by the same spirit of directness and open discussion.

The 2013 SUERF Annual Lecture¹ was given by **Lex Hoogduin**, Professor of Monetary Economics and Financial Institutions at the University of Amsterdam

¹ A video stream of Lex Hoogduin's 2013 SUERF Annual Lecture is available on his website at www.lexhoogduin.com

and former Executive Director at the Dutch Central Bank (DNB). In a thought-provoking speech, Hoogduin emphasized the importance of human psychology, and of economics as a moral science. Crises cannot be avoided, as the three root causes of crises are uncertainty, human creativity and evolutionary determined human psychology. These insights call for modesty in the ambition of what can be achieved to reduce instability without hampering progress. Hoogduin warned that trying to engineer culture and morals too much can easily be counter-productive and even lead to disaster. Turning to banks, Hoogduin discussed the core functions of banks and how these add value. He also presented his view on current policy measures and proposals.

The Q&A for the Annual Lecture was kick-started by **Ernest Gnan**, (Oesterreichische Nationalbank and SUERF), who also chaired the lecture. He asked whether the amount of risk is a given, or if can it be reduced/influenced by the institutional structure and policies. Hoogduin answered that it is important to distinguish between risk and uncertainty. The latter is a given. But risk is not a given, it depends on the decisions and preferences of individuals, and it can be influenced. A clear example is the limited liability set-up. Without limited liability, there will be a lot less risk-taking. At the same time, limited liability leads to moral hazard. Should we make bankers more accountable? Then we should ask ourselves if we are willing to throw away 400 years of limited liability.

A lively discussion ensued regarding the use of an (unweighted) leverage ratio compared to the current (risk-weighted) capital requirements. Both measures have pros and cons, and they should be seen as complements, not substitutes. Norms are always

arbitrary to some extent, as it is impossible to calculate the optimal norm. Norms are needed nevertheless, to give some guidance. Robert McCauley (BIS), noted that we should distinguish between the spirit of Basel II and how it was used in practice.

After the Annual Lecture, the morning continued with Session I: *What impact does bank size have?*

The session, chaired by **Frank Lierman** (Belfius Bank), consisted of the presentation of two academic papers and one banking presentation.

The first academic presentation was by **Michael Koetter**, from the Frankfurt School of Finance and Management. He presented a paper written jointly with Jakob Bosma (University of Groningen), and Michael Wedow, (ECB) entitled: *“Financial system ties: Implied connections and responses to bailouts”*

Too big to fail (TBTF) is not just about size, it is about connections: too connected to fail. This also includes connections with non-banks within the financial system. Many studies that look at linkages focus on interbank markets and neglect links with non-banks, and with other countries. The authors aim to identify the systemically important financial institutions (SIFIs) worldwide. They do this by looking at bilateral connectivity measures and calculate co-crash probabilities. The policy relevance is that if one institution is bailed-out, we would like to know how markets respond to institutions connected to it, in other words: what are the bail-out effects in connected markets? The authors create joint series for 18,500 pairs of firms using daily CDS spreads of 193 firms in 8 sectors. These are mostly EU and US banks, but also some insurance companies and investment trusts. The authors then look at the effect of 51 bail-out events, using a 50-day event window. Their results are remarkable. For instance, both connected and unconnected banks have negative cumulative abnormal returns (CAR) after a bank bail-out, and this effect is even stronger for connected banks. For insurance firms, the impact is negative for unconnected and positive for connected firms. The authors conclude that bail-outs don't necessarily restore faith, and league tables have little early warning abilities.

During the Q&A, **Erik Geenen** asked what the initial hypothesis on CAR was after a bail-out? Koetter answered that if a bail-out is to restore faith, one would expect no results for unconnected and positive results for connected firms.

Paola Bongini, (University of Milan Bicocca) asked whether the authors checked what happened in the case of Lehman, when no bail-out was done. Koetter replied that this was a good idea and the authors could indeed look at the Lehman case.

Michiel Bijlsma, (CPB) commented on the interpretation of the results. The method relies on correlations in tail of CDS spreads, but could there be other factors driving

these correlations. For instance, the bail-out could be a wake-up call for some underlying shared problem.

The second academic presentation in this session was by **Harry Huizinga** (Tilburg University). He presented a paper written jointly with Ata Can Bertay (Tilburg University) and Asli Demirgüç-Kunt (World Bank) entitled: *“Size and stability of big banks”*.

The study investigates the relationship between size and probability of default. The authors distinguish between absolute bank size (measured by the log of total assets) and systemic bank size (ratio of total liabilities to GDP). The correlation between absolute and systemic size is only 0.327, so it is important to distinguish between these. The analysis is based on a large international sample of exchange listed banks over the years 1991-2011. Most banks (86%) are rather small in relation to GDP, but there is a tail of 9% of large banks, with liabilities exceeding 100% of GDP.

Looking at the data, the authors find that absolute and systemic sizes have a distinct impact on various variables, such as interest expense, returns, strategy and funding structure. For instance, banks with a large absolute size have a lower capitalization, higher fee income share, and higher non-deposit short-term funding share. Banks with a large systemic size also have lower capitalization, but they have a lower fee income share and a lower non-deposit short-term funding share. Systemically large banks also saw significantly lower deposit growth during the crisis, which points to a deposit outflow. Large banks, in both absolute and relative terms, tend to pay lower interest rates, but for the latter this is only true if they have an average capitalization rate. This suggests that large banks are too-big-to-fail (TBTF) with risks from government perspective.

During the Q&A, the distinct results for absolute versus systemic size were commented on. **Bouke de Vries** (Rabobank) suggested using a weighted sum of the GDP's of the countries in which a bank is active as an alternative measure for systemic size. Huizinga replied that pooling GDP's had not been done so far, and could perhaps be done in the future. He also noted that other studies show that international banks pay a higher interest rate, because they have less access to national deposits. So in that sense, being international is costly.

The last presentation in this session was by **Teunis Brosens** (ING Economics Department). The title of his presentation was: *“The good, the bad and the big – is there still a place for big banks?”*

Brosens discussed the various ways to measure bank size, and whether a bank's size should be related to national or European GDP. He noted that besides 'too-big-to-fail' we also have 'too-small-to-succeed'. Using Bankscope data, he finds a U-shaped relationship between bank size and cost-to-income ratios. Cost-to-income declines

with asset size, and only increase again when banks grow very big (> USD 750bn in assets). Furthermore, businesses need the services of bigger banks. Banks smaller than 10 bn US\$ in total assets do not have the expertise to cater to all needs of small and medium-sized enterprises, while large international banks with balance sheets over USD 1000bn are not interested.

He argued that banks do not fail due to size or lack of liquidity, but due to asset concentration leading to a wholesale run and consequently the risk of a retail run. Of course, if a big bank fails the problems are bigger. We should therefore prevent and manage failure. Healthy banks should avoid concentration in sectors and markets. Recovery and resolution plans are important, and critical economic activities should be made separable. We also need more capital and other buffers, (such as bail-in debt), and clear seniority ranking of liabilities. Losses suffered during the crisis were at most 5-10% of risk-weighted assets (except for Anglo Irish), which can be absorbed by higher buffers.

Brosens concluded by stating: ‘Ask not how you can halve your bank, ask your bank how it can service you’.

During the Q&A, **Stefan Kavan** (Austrian Central Bank) asked whether holders of bail-in debt really expect to be bailed in. According to Brosens, they did not expect this in the past, but it is only a matter of time before markets and rating agencies fully realize it.

Ruud van de Ven (formerly Rabobank) referred to the risks of asset concentration, and pointed to the fact that Rabobank has a very high concentration in agriculture and in residential mortgages.

Brosens commented that concentration is a risk, and that simply because nothing has happened yet, it does not mean it is safe. Harry Huizinga added that this is true, but that Rabobank has a high capitalization and already issued bail-in debt. They have not been maximizing shareholder value but take other stakeholders into account, which is related to their corporate identity.

The afternoon started with Session II: *Do different bank models add different value?*

This session, chaired by **Patricia Jackson** (EY LLP UK and SUERF) combined one academic speaker, one central bank speaker and one speaker from a commercial bank.

The first speaker in the session was **Clemens Kool** (Utrecht University). He presented joint work with Nadejda Lazova and Mark Sanders, entitled: *"Bank credit growth and banking system characteristics"*

Credit growth in the eurozone is very heterogeneous, both among countries and among banks in countries, despite the integration of financial systems. In some countries we saw excessive credit growth prior to the 2007 financial crisis. This heterogeneity cannot be



explained by monetary policy, since the same ECB rates apply throughout the eurozone. The research question is: what drives credit growth in the euro area? What causes cross country and cross bank heterogeneity? And does the financial crisis affect the drivers of credit growth?

Since monetary policy is not the source of heterogeneity, the authors focus on the role of external (interbank) credit. From the literature, we know that net foreign debt drives internal credit growth. Also, the effect of market funding versus deposit funding depends on external conditions. The authors use a panel regression with 52 banks from 6 eurozone countries, during 8 years (2005-2012). A distinction is made between individual bank characteristics and system characteristics. Looking at the bank-specific variables, the authors find that bank size tends to be negatively related with credit growth, and liquidity is positively related. Interestingly, most bank-specific effects disappear after the crisis. Looking at banking systems, the authors find a positive relationship with capitalization and a negative relationship with the interbank ratio. For individual banks however, there was no significant relationship between these variables and credit growth.

The authors found no funding effects. But since the sample is small and the information set is limited, further research is needed.

During the Q&A, **Michael Koetter** asked how many of the banks in the sample were rescued, and whether it is possible to separate the demand and supply effects.

Kool answered that the known problem banks were removed from the sample. The authors do control for some demand side macro variables such as GDP growth, inflation, but one would need bank-firm level data to do this properly.

The second presentation in this session was by **Frans de Weert** (Head of Risk Management Supervision at DNB). His presentation was called *"Business model and strategy supervision"*

In the past, supervision by the Dutch Central Bank (DNB) did not look at business models, but mainly checked if all the controls are in place. But the right rules do not guarantee the right outcome. In a changing environment, old controls need not prevent a new crisis. The existing Financial Supervision Act already contains

various pointers for business model and strategy supervision.

Business model and strategy supervision is a way to become more forward-looking and to identify tomorrow's risk. Understanding a bank's business model helps to identify risks and discuss them at a strategic rather than operational level. Business model supervision is also an important link between macro and micro-prudential supervision. Questions that can be asked are:

- Is this business model fitting for the environment?
- Is the risk appetite contained in this business model in accordance with the amount of capital and liquidity?
- When do you conclude that a strategy is not sustainable?

If supervisors do not have the expertise to judge this, then external expertise can be brought in.

The presentation led to a lively debate during the Q&A.

Urs Birchler commented that supervisors may be too 'formalistic' and they are bound by the rule of law. But when we have to be judged on soft factors, he would prefer the formalistic and objective over the 'esoteric'.

Bouke de Vries noted that recovery and resolution plans already look at business models explicitly. De Weert answered that many problems arise due to the wrong strategic decisions. Such decisions can be due to soft factors, such as a dominant CEO or a lack of profits at home. He conceded that there is a high burden of proof on the supervisor.

Clemens Kool agreed that formal checks alone may lead to inadvertent behavior, but warned that supervisors should not become bankers in deciding on business models and strategy. If the supervisor is partly responsible for the strategy, it becomes harder to supervise it.

The last speaker in this session was **Bouke de Vries** (Rabobank). His presentation was entitled: *"Co-operative banks performance during the crisis – do different business models add different value?"*

De Vries first described the co-operative bank model. There are large differences in size, level of integration, market position and (inter)national orientation of cooperative banks. In general, co-operative banks are owned and controlled by members. Internal support mechanisms are in place. However, member influence only works if it is well-organized. This is especially relevant for individual members (as opposed to member banks). At Rabobank, member banks are all present at central delegates meetings. They must approve the executive board strategy and can fire board members. De Vries noted that good internal governance and balanced incentives are as important as external regulation and supervision. Regulation itself is often still oriented to the listed model, while co-operative banks have a 20% market share in Europe.

De Vries then presented the results of a study on the performance of cooperative banks during the years 2003-2010 in six countries (Austria, Finland, France, Germany, Italy and the Netherlands). The results show that cooperative banks on average have lower volatility in profits, higher capital ratios and larger distances to default (measured by the Z-score), and as such they were more resilient during the financial crisis. The ensuing economic crisis however, has a serious impact on all retail banks, including cooperative banks. De Vries concluded by saying that diversity of bank business models increases macro stability. However, every model is only as successful as it is executed.

During the Q&A, the risk-weighting of interbank loans was discussed. Interbank loans within the same bank group have a risk weight of 0. Nevertheless, decentralized groups of small banks can be systemically important, so one could argue that they should be under the same rules as large banks.

De Vries replied that this matter did not apply to Rabobank, as it has one consolidated balance sheet, but in other countries not all cooperative banks have consolidated accounts.

Clemens Kool is not in favor of fine-tuning regulation to each and every business type. In his view, we need more simplicity, not more fine-tuning.

The afternoon ended with Session III – *What have we learnt about banks and their business models?* This session featured a keynote address and a panel discussion.



Aerdt Houben

The keynote address was given by **Aerdt Houben** (Director, Financial Stability Division DNB) on *"Did we solve the too-big-to-fail problem?"* Cutting directly to the chase, Houben said that the short answer is: "Almost!" And then added that we'll never fully solve it.

Houben discussed three ways of reducing the too-big-to-fail problem (TBTF). First of all, we should reduce the probability that problems arise. This is mainly done by improving capital and liquidity positions, as set out under Basel III and implemented in CRD/CRR IV. All in all, from 2017 onwards, core tier 1 capital (including the additional buffer for systemically important banks) will be 4-5 times higher than the 2% required under Basel II.



Second, when problems arise, we should reduce the bill to pay. This can be achieved through resolution plans. If economically critical activities can be separated from the other business, this will reduce the span of the public safety net and, by implication, the bill to be paid if trouble arrives.

Houben stressed that this is a difficult process: when cutting out non-critical parts of the bank, these activities may not be viable on their own. Third, losses should be shifted from taxpayers to bank creditors: bail-in instead of bail-out.

In the Netherlands, the Intervention Act allows the Minister of Finance to expropriate shareholders and certain other groups of financiers. This was done in the case of the nationalization of SNS-Reaal, which entailed a 100% write-off of shareholders and a full bail-in of subordinated debt. Another recent bail-in example was that of Cyprus. Further afield, in Europe, work is going on in the context of the Bank Recovery and Resolution Directive (BRRD), towards introducing 'bail-in debt'. From 2018 onwards, this instrument will allow for the losses from a failed bank to be borne by the bank's creditors without the state acquiring ownership. Such 'bail-in debt' may, when difficulties mount, be converted into share capital or written off outright. Under the current draft BRRD, a loss hierarchy is introduced. First, losses up to 8% of total assets are absorbed by shareholders and holders of other instruments. Then, losses up to 5% of total assets will be borne by the European Resolution Fund. Only after that, the ESM (European public backstop) or national backstops are needed, which means that the taxpayer is only hit after 13% of the balance sheet is bailed-in. Looking back at European bank losses in the years 2007-2012, the losses averaged some 3% of the balance sheet. Only the losses of Anglo Irish Bank exceeded the 13% threshold. So while the need for state support cannot be precluded even after implementation of the BRRD, the probability will be strongly reduced.

Both the expropriation instrument and the bail-in debt may be used if the supervisory authority considers the institution no longer viable. This discretionary power in the hands of the supervisor creates uncertainty for investors. In order to reduce that uncertainty, some institutions have issued contingent convertible bonds (*coco bonds*). These can be converted into equity capital or be written off entirely if the capital position of a bank falls below a predetermined level. Thus whereas *coco* bonds have the same effect as expropriation and bail-in debt, they offer investors more certainty in advance regarding the conditions that will cause them to be converted or written off.

During a brief Q&A, **Harald Benink** asked how credible the BRRD plans are, considering the level of discretion for national authorities. Judging from market prices, it is not entirely credible yet.

Urs Birchler asked if it is really better to rescue a failed bank with healthy banks' money. Houben argued that we need contractual bail-in bonds (up to a specified level) rather than statutory bail-in. Then it is clear to investors. An additional benefit is that senior unsecured debt becomes very safe.

The afternoon ended with a panel discussion. Before the discussion, the panelists each presented their views on bank business models.

Alicia Sanchis (Banco Santander) stressed the need for banks to refocus on clients and their needs, on risk management, on understandable contracts, and on their relationship with markets. In terms of risk management, project viability must be put center stage, rather than focus on collateral. The transformation functions remain at the core of banks, but given pressure on the banking sector and the funding mix, banks should not stretch the maturity transformation too much. Markets and other forms of (co-)financing could be developed more, and the role of banks becomes that of an intermediary providing expertise. Regulation should allow banks to pursue this re-focusing; legal uncertainty stemming from new rules and regulations should be reduced, and a level playing field with institutions not falling under the same degree of supervision should be put center stage.

Andreas Bley (BVR Association of German Cooperative Banks) stressed the need for diversity of bank business models. The cooperative model in general and the German cooperative model in particular deserve special attention. In Germany, cooperative banks serve 20-25% of the market, and they weathered the financial crisis without state aid. The cooperative bank system in Germany consists of about 1,100 entities that are legally independent from each other, but work together as a network. For example, they have central banks and specialized institutions to provide services an independent bank cannot provide. The median size of cooperative banks is about EUR 300m in total assets. According to Bley, a credit crunch in the aftermath of the financial crisis has been averted very much due to the presence of the cooperative banks. Finally, he warned that regulation may not always be adequate for cooperative banks. For instance, how can cooperatives meet the required level of bail-inable assets by issuing debt instruments such as *coco*'s if these small banks never went to the capital market before?

Harald Benink (Tilburg University) insisted on the need for credible back stops, which among other things require member states to have intervention and resolution laws in place. He suggested already introducing bail-in in the upcoming Asset Quality Review (AQR). This is especially important if the amount of hidden losses still out there in the European banking system turns out to be high. Benink would not be surprised if losses yet to be uncovered would exceed EUR 500bn. If capital shortage



The closing panelists: (l-r): Michiel Bijlsma, Alicia Sanchis, Dirk Schoenmaker and Andreas Bley; Harald Benink

cannot be financed in financial markets or by taxpayers, then a bail-in is needed. A legal framework is needed, such as the Intervention Act in the Netherlands. Benink believes that the ECB should demand that countries should have a legal mandate before the AQR is finished. Without these contracts, the ECB should refuse to take these banks under its supervision. Unfortunately, the ECB itself looks somewhat divided on the question of whether private or public money should be available as a back stop.

Michiel Bijlsma (CPB) discussed how banks are organized, and the long term drivers affecting bank scope and scale. Though much in vogue right now, regulation is not the key driver. Technology is more important. Technology will reduce transaction costs, information asymmetries and economies of scope, while it will increase economies of scale. As a result, banks will become even bigger. They will also become more specialized and the role of international financial markets in the financial system will become more important. Therefore the key issues for policy are:

How to cope with ever bigger banks? How to deal with the national and international presence of banks? How to deal with free riding on information collection in international financial markets? What tasks should be organized nationally/internationally, for example payment systems?

Bijlsma stressed the information problem that was at the heart of the financial crisis. People were buying complex products, believing that others had checked them out. There is an underproduction of information on risk, because for trading purposes it is easier and cheaper to use information gathered by others.

A large part of the Panel Q&A revolved around bail-in and bank size. Stefan Kavan asked what happens if the buyer of bail-inable debt cannot bear the associated losses. It seems the problem of interconnectedness has not been solved.

Harald Benink answered that we have to make sure that portfolios of bail-in debt are diversified across investors, and we should also focus on convertible debt, i.e. going concern bail-inable, in case of recovery. Clemens Kool commented that a diversified portfolio can hardly be

guaranteed, and Alicia Sanchis added that if pension funds buy bail-in debt, they are unlikely to take the full losses without the government stepping in.

Bouke de Vries noted that contractual bail-in is applied to a smaller category of assets than if you let bail-in apply to all asset categories. He wondered if this will result in a higher price for contractual bail-in. If so, it may almost become equity, and then it may not be possible to issue contractual bail-in debt (coco's) for all banks. Michiel Bijlsma thinks a smaller asset base could mean that the burden might be shifted to the taxpayer after all. He also believes that banks should hold more equity, and bail-in may not be fully credible as a substitute of equity. Dirk Schoenmaker thinks that a smaller asset base will provide more clarity, compared to the current situation where the entire balance sheet is available for bail-in.

A legal expert in the audience commented on the short presentation by Harald Benink, saying that it is not practically possible to have national laws implemented in less than one year. It is better to arrange an intervention framework within European law.

The panelists also commented on Michiel Bijlsma's prediction that banks will get bigger. Andreas Bley said that for a large share of the (cooperative) banking sector, proximity is much more important than size for SME and retail banking, despite the long term technology trend described by Michiel Bijlsma.

Alicia Sanchis argued that size is not the only or ultimate variable to distinguish systemic importance. Banks of the same size may have different risk profiles, and it is possible to have bigger banks without an increase in risk. Harald Benink agreed that banks may indeed become bigger, but with a good system of contingent capital, they will be much more subjected to market discipline.

Dirk Schoenmaker closed the panel discussion and the conference by remarking that the title of the conference has perhaps been formulated to facilitate a more positive approach to the value that banks may generate for society, though most of the sessions and discussion have been focusing on how to limit the negative effects of (big) banks in conducting their business. In the discussion, "Society" seems to have been narrowed to "tax payers."