# From Banking Union to Capital Markets Union

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## 1. Introduction

After the successful start of the Banking Union at 4 November 2014, the question has been raised whether we should also establish a Capital Markets Union. In this paper, we rephrase the question slightly: should we move from Banking Union to Capital Markets Union? There are concerns that Europe is overbanked (Pagano *et al*, 2015; Langfield and Pagano, 2015). If banks deleverage and thus reduce the provision of credit to the private sector, other channels are needed for financing firms and households. That is one of the drivers of Capital Markets Union. Moreover, market financing (e.g. corporate bonds) was more stable during the recent financial crisis than bank financing (e.g. bank loans). This driver comes from the supply side: firms issuing corporate bonds to replace bank loans.

Another driver comes from the demand side. Employees are preparing for old age by setting aside part of their current income as pension savings. They can do it collectively through pension funds (a type of large institutional investor) or privately through private pension savings schemes managed by a professional asset manager (another type of institutional investor). Demographics, in the form of ageing, are amplifying this pension savings trend (De Haan *et al*, 2015). Part of consumer savings is thus moving from deposits at banks to claims managed by institutional investors, which typically invest in securities traded on capital markets.

The increasing share of institutional investors increases the demand for marketable instruments, such as equity and debt securities. In particular, life insurance companies and pension funds invest in (long-term) bonds to match the maturity of their liabilities. While government bonds used to be the main asset class, life insurers and pension funds are increasingly looking for other bond classes, such as corporate bonds, to diversify their risk and to increase yield in the current low interest rate environment.

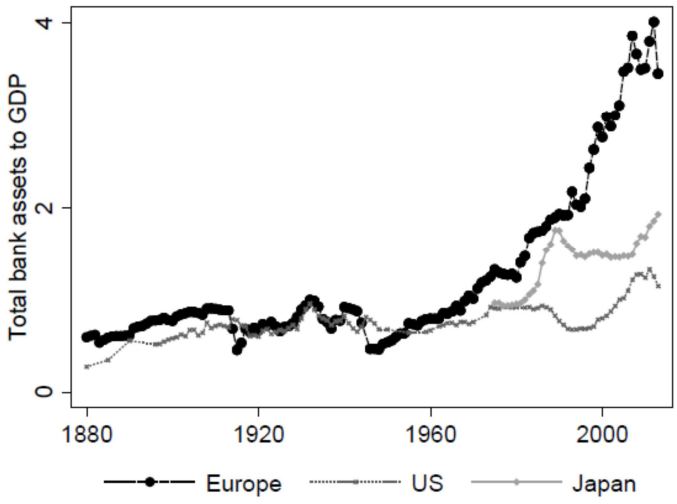
While some of the drivers seem cyclical, the underlying patterns are of a more structural nature. This paper discusses how the corporate bond market segment can be deepened as part of the broader Capital Markets Union project.

## 2. Is Europe overbanked?

The view on banking has been changing over time. In the 1980s, the Wirtschaftswunder of Germany and Japan was partly assigned to the strength of their large banks. It was argued that the 'Hausbanks' were a stable source of finance for the flourishing industry. Figure 1 shows that that bank financing was increasing rapidly up to 1990, both in Europe and Japan. The theoretical argument was that financial systems with a higher degree of relationship-based lending could be expected to give greater weight to the long-term gains from maintaining an existing relationship with a borrower. Providing financing to ride out temporary downturns may not only be in the interest of the borrower, but also of the lender. The capital buffer of the bank (as lender) then absorbs part of the losses caused by the downturn. Allen and Gale (2000), for example, argue that a bank-based system is better able to provide inter-temporal smoothing of investment (and thereby the wider economy) than a market-based system.

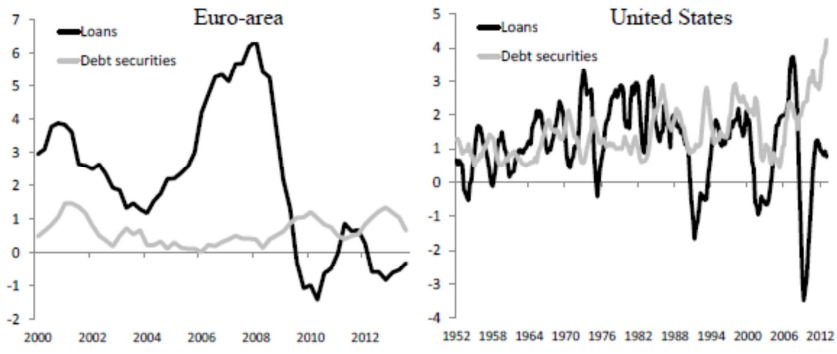
Then the asset bubble burst in the early 1990s in Japan leading to the lost decade(s) of growth. Also Germany got into economic problems, after unification of the West and the East. Banking nevertheless kept on increasing in Europe, but not so in Japan or the US. In the recent financial crisis, banks appeared not to be the stable source of financing to firms. As banks experienced large losses, their capital base eroded. Given the lack of capital, banks almost stopped lending to firms, leading to a credit crunch. Figure 2 shows that both in the Europe and the US banks deleveraged during the crisis. The net financing became negative, as the amount of amortised loans exceeded new loans. At the same time, net corporate bond financing (labelled debt securities in Figure 2) was more stable and remained positive throughout the crisis.

**Figure 1. Total bank assets to GDP: Europe, US and Japan**




Source: Langfield and Pagano (2015)

**Figure 2. Non-financial firms' financing in loans and debt securities**




Note: The figures plot the year-on-year change in non-financial corporations' outstanding external liabilities (broken down as loans and debt securities) divided by nominal GDP.

Source: Langfield and Pagano (2015)

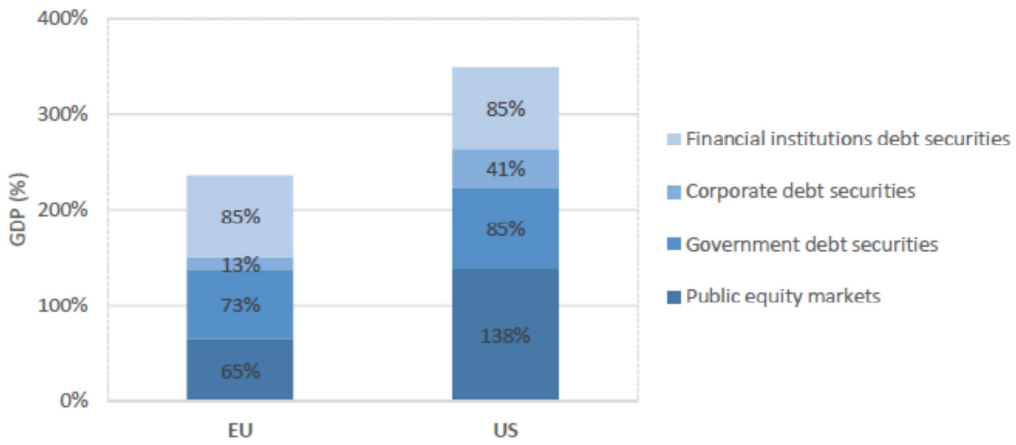
Using an extensive data set on corporate bond defaults in the US from 1866 to 2010, Giesecke *et al* (2014) study the macroeconomic effects of bond market crises and contrast them with those resulting from banking crises. The US has experienced many severe corporate default crises in which 20 to 50 per cent of all corporate bonds defaulted. Giesecke *et al* (2014) find that corporate default crises have far fewer real effects than do banking crises. These results provide empirical support for current theories that emphasise the unique role that banks and the credit and collateral channels play in amplifying macroeconomic shocks. Capital constrained banks are reducing lending after a banking crisis. This credit channel effect is amplified by the reduced value of collateral, such as the value of houses as collateral for mortgages and SME loans. By contrast, corporate bond financing is less volatile. Moreover, Giesecke *et al* (2014) find a substitute effect: after a corporate default crisis, there is an increase in bank lending.

So, views on banking have been changing over time. More recently, Pagano *et al* (2014) and Langfield and Pagano (2015) raise the question whether Europe is overbanked. Figure 1 highlights the prominent role of banking in Europe (up to 4 times GDP) compared to a more modest role in Japan and the US. In the aftermath of the recent financial crisis, European banks are slowly deleveraging. At the same time, capital markets are less developed in Europe. Figure 3 indicates stark differences in public equity markets (138 per cent of GDP in the US vs 65 per cent in the EU) and corporate bonds (41 per cent versus 13 per cent). Banks are thus overdeveloped and capital markets underdeveloped in Europe.

An emerging view in the banking versus markets debate is that a healthy mix of bank-based and market-based financing provides the optimal financial structure for the economy. Banks and markets play complementary roles in the financial system. Langfield and Pagano (2015) calculate the bank-market ratio for Europe, the US and Japan. The bank-market ratio is defined as bank assets divided by stock and bond market capitalisation. Figure 4 shows that the bank-market ratio is high for Europe, while Japan takes an intermediate position. US has the lowest ratio. Moreover, the bank-market ratio is more or less stable over the 1990-2010 period for the US and Japan, but has increased to 4 in Europe in the run-up to the financial crisis. The bank-market ratio was thus higher in Europe, and kept on increasing.

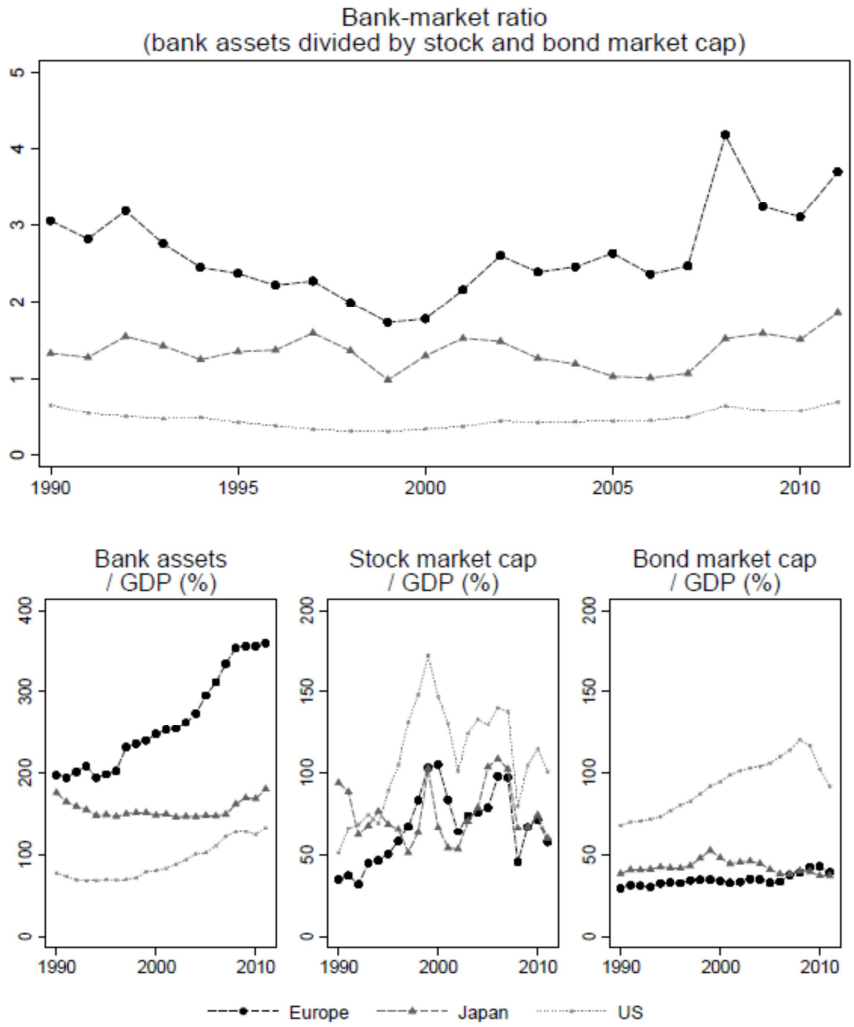
A more detailed examination of Figure 4 indicates that the difference is in bank assets, which are higher in Europe than in the US and Japan. The opposite is true for markets. On stocks the US is higher, and even more so on bonds.

**Figure 3. Capital markets structure: EU versus US (end 2013)**




Source: Lannoo (2015)

**Figure 4. Financial structure since 1990 in Europe, Japan and the US**




Note: The bank-market ratio is defined as the ratio of total bank assets to stock and private bond market capitalisation.

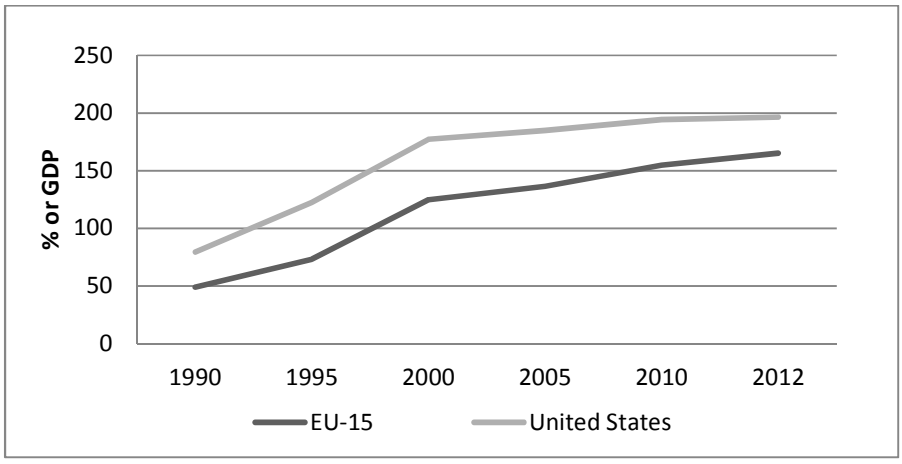
Source: Langfield and Pagano (2015)

## 3. Role institutional investors: pension funds

Over the last decades, the intermediation of financial assets has gradually shifted from banks towards institutional investors, such as pension funds, insurance companies, and mutual funds. In this process of re-intermediation, the assets of institutional investors of the EU-15 countries tripled from 49 per cent of GDP in 1990 to 165 per cent in 2012 (De Haan *et al*, 2015). Figure 5 shows that the role of institutional investors is rising faster in Europe and slowly approaching that of the US. The shift from banks towards institutional investors can also be illustrated by the financial intermediation ratio. Table 6 illustrates the bank and institutional intermediation ratio from 1970 to 2010 for the G-10 countries. It shows that the US and Japan have already experienced a 30 per cent shift from banking to institutional investment, while the

large European countries have only shifted a mere 12 per cent. This suggests that a further shift may be expected in Europe.

**Figure 5. Total institutional investors assets to GDP: EU-15 and US**




Source: De Haan, Oosterloo and Schoenmaker (2015)

**Table 1** Bank and institutional intermediation ratios (in % of intermediated claims), 1970–2010

| | | 1970 | 1980 | 1990 | 2000 | 2010 | Δ 1970–2000 |
|---|---|---|---|---|---|---|---|
| France | *Bank* | 95 | 94 | 81 | 71 | 71 | **-24** |
| | *Institutional* | 5 | 6 | 19 | 29 | 29 | **24** |
| Germany | *Bank* | 89 | 88 | 83 | 76 | 72 | **-17** |
| | *Institutional* | 11 | 12 | 17 | 24 | 28 | **17** |
| Italy | *Bank* | 94 | 95 | 90 | 72 | 81 | **-13** |
| | *Institutional* | 6 | 5 | 10 | 28 | 19 | **13** |
| United Kingdom | *Bank* | 67 | 71 | 63 | 60 | 73 | **6** |
| | *Institutional* | 33 | 29 | 37 | 40 | 27 | **-6** |
| **EU4** | ***Bank*** | **86** | **87** | **79** | **70** | **74** | **-12** |
| | ***Institutional*** | **14** | **13** | **21** | **30** | **26** | **12** |
| Canada | *Bank* | 66 | 74 | 64 | 55 | 56 | **-10** |
| | *Institutional* | 34 | 26 | 36 | 45 | 44 | **10** |
| Japan | *Bank* | 82 | 78 | 70 | 60 | 51 | **-31** |
| | *Institutional* | 18 | 22 | 30 | 40 | 49 | **31** |
| United States | *Bank* | 65 | 65 | 51 | 43 | 33 | **-32** |
| | *Institutional* | 35 | 35 | 49 | 57 | 67 | **32** |
| **G7** | ***Bank*** | **80** | **81** | **72** | **62** | **62** | **-17** |
| | ***Institutional*** | **20** | **19** | **28** | **38** | **38** | **17** |

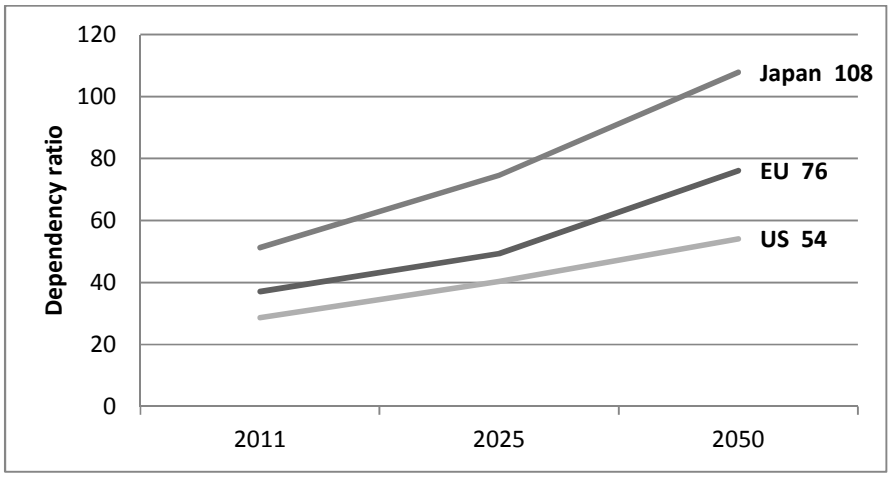
Notes: The intermediation ratio measures the share of the financial claims of banks and institutional investors as a percentage of total intermediated claims. The sum of bank and institutional ratios add up to 100.

Source: De Haan, Oosterloo and Schoenmaker (2015)

A major driver towards further institutional investment is demographics. Figure 6 indicates that ageing is rising fast in Japan and Europe, and less so in the US due to immigration from Latin America. The dependency ratio is defined as the number of retired persons aged 65 or higher divided by the number of persons of working aged 20 to 64. While the ratio already differed in 2011 with 29 per cent in the US and 37 per cent in Europe, the gap widens towards 2050 with 54 per cent and 76 per cent respectively.

Appreciating that governments will not be able to provide the current levels of health care and pensions (so-called first pillar pensions) with an ageing population in the future, employees have started to provide for their own pensions by saving through pension funds or private pension schemes (so-called second and third pillar pensions). Figure 6 shows that the need for pension savings is in particular pressing for Europe and Japan. Savings through pension funds (collective funds) and private schemes (mutual funds) is thus expected to rise further over the next decades in Europe. As these institutional investors prefer to invest in marketable assets, their demand for debt and equity securities will increase.

**Figure 6. Dependency ratio ($65^{+}$ as percentage of population aged 20-64), 2011-2050.**




Source: OECD

The rise of pension savings in Europe will lead to a broadening and deepening of European capital markets. For illustration purposes, we highlight three major trends. A first trend is the shift from government bonds to corporate bonds. A second trend is the move to formal pension funds or schemes. A third trend is the move from defined benefit to defined contribution schemes.

On the first, pension funds as well as life insurers invest to a large extent in fixed income securities (bonds) to match the duration of their long-term liabilities. Government bonds are a large asset class. With the rising risk on government bonds and declining returns (due to quantitative easing), life insurers and pension funds are increasingly looking for other bond classes, such as corporate bonds, to diversify their risk and to increase return. It should be noted that the model of guaranteed returns by life insurers and pension funds is coming under pressure in the current low interest rate environment. They will move to more flexible products, where a larger part of the risk is shared with the consumer. This will speed up the third trend discussed below.

On the second, some countries have already fully funded pensions schemes (De Haan *et al*, 2015). Examples are Denmark (pension assets are 34 per cent to GDP), Ireland (40 per cent), Netherlands (168 per cent) and the United Kingdom (92 per cent). By contrast, some major countries have almost no separate pension funds. Germany, for example, has only 6 per cent to GDP in separated pension assets.

Most pension claims are book reserves on the company's balance sheet. That is very risky for employees (as future pensioners) and former employees (as pensioners). If the company is defaulting, or getting into major difficulties, pension claims may be downsized or completely wiped out.[1] While a guarantee scheme may provide some compensation, the most viable alternative is to transfer pension claims to a separate fund. That would imply a major shift in corporate finance. In the case of book reserves, the company is partly self-financed through its pension liabilities. Moving its pension liabilities to a separate pension fund means that the company has to find outside finance in capital markets (or with banks). Moreover, these new pension funds need to buy assets.

On the third trend, defined benefit schemes are risky for employers. As defined benefit schemes link pension payouts to the average (or final) salary of employees, there may be a shortfall if investments are not sufficient or not sufficiently growing to meet future pension commitments. Employers typically have to make up this shortfall. These potential pension liabilities were more or less hidden in the past. But transparency shows the real size of the problem. International Financial Reporting Standards (IFRS) require companies to show potential pension liabilities on the balance sheet. Company CFOs are wary of this large and fluctuating liability in their balance sheet. Schoenmaker and Sassen (2011) observe a trend towards converting defined benefit pensions into defined contribution schemes, where the investment risk is born by (former) employees. Companies are even prepared to pay a large 'dowry' to their pension scheme upon conversion to get rid of these uncertain liabilities.

## 4. Deepen capital markets: corporate bonds

The previous sections show that both supply and demand factors are driving an increase in equity and debt securities. The Capital Markets Union should facilitate this increase in market financing. We focus on deepening the corporate bond market, as corporate bonds are a major component of the increased demand and supply. Langfield and Pagano (2015) also suggest deepening the market for corporate bonds and asset backed securities in response to the structural decline of banking.

The transformation of the government bond market in the Eurozone after the start of Economic and Monetary Union (EMU) is instructive for the corporate bond market. EMU created a large euro-based government bond market, with different issuers (i.e. countries). To reduce their funding costs, governments modernised their debt agencies. The challenge for debt agencies (at least prior to the euro sovereign crisis) was, and still is, to match the yield on the Bund, which is the benchmark bond in the Eurozone. Governments have reduced the number of bond issues in order to increase the size (and thus the liquidity) of these bond issues, which are issued in various tranches. Next, secondary trading in government bonds moved to centralised electronic facilities, such as MTS. The result of these innovations is a deep and liquid market for euro government bonds.

The current trading of corporate bonds in Europe is still fragmented with multiple small issues and a decentralised dealer network. Bond markets are inherently less deep than equity markets. Subsequently issued equities by a company turn into one (or a few) listed equity, as they have the same maturity (i.e. infinite). By contrast, bonds have a finite life. Issuing bonds with different maturities further fragments the market. Large corporates can follow the example of Eurozone countries by issuing less, albeit larger, bond series, and thus increase the liquidity of each series. Similarly, bonds of small companies can be pooled. Next, corporate bond trading can be further standardised. Another innovation would be the move to a centralised platform for trading and clearing. That would improve the infrastructure for bond trading.

[1] The same risk is present when a company's pension fund invests in the company itself. That happened in the case of Enron. Prudential regulations typically restrict the investment in the own company.

## 5. Conclusions

The move from banking lending to capital markets may improve macroeconomic stability, as markets appeared a more stable force of funding for firms than banks during the recent financial crisis. On the supply side, we observe a broader trend of precautionary retail savings moving from bank deposits to institutional investment (pensions, insurance and mutual funds). This trend translates in a major change in the pattern of corporate finance, whereby firms replace bank loans by corporate bonds. On the demand side, we observe an institutional investors preference for corporate bonds (and equities). These trends are not just a cyclical response to current bank deleveraging, but are of a structural nature.

We suggest that the Capital Markets Union project takes up this challenge. Key components are standardising corporate bond trading and moving trading and clearing to centralised electronic platforms. The Capital Markets Union could thus reinforce the positive spiral of bond markets initiated by Economic and Monetary Union (Pagano and Von Thadden, 2008).

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