



# EMPLOYMENT IN EUROPEAN MORTGAGE MARKETS

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## Abstract

Since the onset of financial crisis, mortgage markets in many member states have reduced in size, broadly in proportion to changes in their GDPs, but also in relation to specific country factors. While there are no published sources of data that identify the number of workers supported by mortgage market activity, the report identifies a number of drivers of employment up to 2025. Critical will be the outcome, in both speed and levels of economic growth, of the development beyond the present crisis since this will influence both the levels of outstanding mortgage debt and new mortgage lending. This is related to the development of national and super-national regulatory regimes which in shifting the emphasis from market growth to stability are imposing additional labour costs on lenders. Further drivers include the extent of the development of new activity in equity release responding to the fiscal challenges related to ageing populations and austerity policies, the finance needs of households seeking energy reduction gains, and increases in productivity based on IT and the internet. Although the employment outcomes will undoubtedly vary across member states, in general they do not appear likely to exceed the 2007 peak.



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## 1. Introduction: Objective, Methods and Structure

### 1.1 *Objective*

The objective of the present study is to explore the possible developments in the scale and focus of the direct employment contribution made by mortgage markets across Europe.

There can be no doubting the size and importance of the European residential mortgage industry. For a decade or so leading up to the financial crisis, mortgage markets in Europe increased markedly. By 2007 the total outstanding stock of mortgage debt held with financial institutions was equivalent to about half of the combined GDP of the EU27 (EMF 2011).

Just as the scale of the financial activity of the European mortgage industry is clearly large, so has been its contribution to European labour markets. What is not clear, however, is just how large. The EU Labour Force Survey shows that in 2007 financial service sectors as a whole supported 6.5 million workers, but data about employment levels, harmonised across the member states, do not separately identify mortgage from non mortgage employment.

The interconnections between mortgage and non mortgage activities, however, make it possible reasonably to conclude that the jobs in firms providing, marketing and servicing mortgage products are, like financial sectors as a whole, likely to be skewed toward higher educational, skill and pay levels. In that sense many of these are high status jobs, requiring and rewarding high levels of human capital, and making particularly valuable contributions to national labour markets.

The present global financial crisis, which had its origins in the sub-prime lending in the US, has impacted on housing and mortgage markets across Europe. Mortgage markets in general experienced substantial reductions in the overall amount of new lending, the 2010 amount being less than 60 per cent of the 2007 amount (EMF 2011). These reductions were uneven across the member states. Broadly, they were greatest in those countries in which the macroeconomic position, as measured by its growth in GDP, has been worst. They also appear to have had impacts on employment levels in mortgage markets.

In the context of the NEUJOBS project the central challenge is to identify the possible development of employment in mortgage markets up to 2025.

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## 1.2 Methodology

### 1.2.1 Constraints

The methodology and the level of precision (or imprecision) of the statements about the future shape of and employment in mortgage markets have been shaped by a number of factors:

**Variation in mortgage markets across the member states.** Even allowing for the size of national economies, there are large differences in the size of mortgage markets. There are also national differences in the balance of different types of financial institutions offering mortgage products – for example, general banks, specialist housing loan institutions and insurance companies – as well as in their business models and the skills of their personnel. Further, member states vary in their regulatory and tax arrangements that affect the supply and demand for mortgages.

These variations suggest that their futures will be differ, one from another, and consequently so will their employment profiles. Study of future mortgage market employment needs to recognise different trajectories and different futures.

**Lack of statistical information about past and current employment in mortgage markets.** Annual, harmonised data providing information about the number of workers in each industrial sector, including the financial sector, as well as their sub-sectors are available. However, it is not possible to identify the numbers working specifically in mortgage markets. The problem arises partly because workers engaged in the full range of activities entailed in providing and servicing housing loans – including those raising funds in wholesale and retail markets, those marketing and selling mortgage products, those collecting repayments and those managing non-payments – are recorded in a number of different sub sectors. It is also partly because some institutions and workers carry out both mortgage and non-mortgage activities. For example, in the UK some building societies – for which employment data are available – own estate agency operations through which houses are bought and sold. Further, some institutions outsource some activities for example to financial intermediaries whose numbers are recorded in a different sub-sector.

So, employment specific to mortgage market activity cuts across sub-sectors used in employment statistics, but because the industry is differently made up in each member state, it does not cut across in a uniform way. In short, it is possible to track employment in each member state in its financial sector, and even in some sub-sectors, but not in something which specifically and exclusively is its mortgage market sector.

This further means that the available data do not allow statistical modelling to provide either a relationship between past mortgage activity and employment, or a basis for quantitative forecasts or projections.

**Lack of literature.** Possibly because of the lack of statistical information, issues of employment in mortgage markets has not been a significant focus of scientific interest so that there is not a even a modestly-sized body of literature on which to draw. Further, even the literature on financial sectors and mortgage markets is heavily skewed, particularly toward a number of the larger and older member state economies.

**High level of uncertainty about the future of European economies in general and financial sectors in particular.** In many member states the peak year for mortgage market activity and thus probably for employment in mortgage markets was 2007. In many there has been a marked downturn tied to the ongoing and developing financial crisis which has impacted on both the availability of funds for lending in housing markets and on the demand for housing and housing loans. Different member states have been affected differently in relation, for example, to membership or not of the eurozone and to the size of public debt relative to GDP, but, for all, the future of their economies in general and mortgage markets specifically are tied to recovery. Their banks, too, have had different exposures to toxic debt and different liquidity challenges, which have consequences for housing and mortgage market developments.

Unfortunately, from the outset of the NEUJOBS project until the time of writing, the crisis, far from being resolved and pointing to a clear recovery, has become more complex. At the time of writing it is not at all clear whether from here there will be a gradual improvement with GDP returning to pre-crisis growth within a few years, or whether the crisis will deepen even further – for example with the collapse of the eurozone – with repercussions for perhaps another decade, even up to the end of the project horizon of 2025. Moreover, so fundamental is this that, in comparison, all other drivers of changes to mortgage markets, such as demand shifts arising from ageing populations or developments in information technology enabling productivity gains, will probably have a relatively minor impact on future employment.

### 1.2.2 Approach

Given these factors the approach has been to:

- (1) Identify developments over the last decade or so in the structure and size of mortgage markets, and also in employment, mainly in financial sectors as a whole, including numbers, occupations and skills. This has especially focussed on developments following the onset in 2007 of the financial crisis.
- (2) Identify a number of drivers of employment in mortgage markets, and on that basis to identify possible directions of change in employment in mortgage markets up to 2025.

Some of the between country variations have been captured through examination of European mortgage markets as a whole, supported by more detailed case studies of three countries – the Netherlands, Poland and the UK. Each of these has a large financial sector that together account for a significant slice of the total EU financial activity. They are also representative of different types of approach: the UK with its strong neo-liberal leanings, the Netherlands which has elements of social democratic and conservative, as well as neo-liberal, approaches, and Poland with its more recent transition to a market economy. While they do not together cover the full range of European approaches, they nevertheless illustrate the country-specific nature of both past and possible future developments.

### 1.2.3 Sources

The study has involved desk-based research of the literature and published sources of statistical data. In addition, information has been obtained from interviews with the

representatives of a number of organisations having responsibilities across the European Union as well as of specifically national organisations, and with a number of individuals<sup>1</sup>. In order to maintain confidentiality and to prevent compromising organisational interests, an undertaking was made to those being interviewed that the report would not match information and views with individual informants.

The Netherlands case study was carried out with the assistance of Kees Dol, Delft University of Technology. The Poland case study was carried out with the assistance of Marcin Kawinski, Warsaw School of Economics.

### **1.3 Structure of report**

The main body of the report consists of four sections the first covering the European Union as whole, and the following three the Netherlands, Poland and the UK respectively. Each section covers past developments in and possible futures of mortgage markets, and associated employment consequences. The fifth and final section draws together conclusions about the drivers that seem likely to determine employment needs in mortgage markets.

Central to the conclusions is the role of the present financial crisis, which had its origins in sub-prime lending. A key to the actual future lies in how quickly and in what ways the financial crisis is resolved. It seems unlikely that this will happen quickly, with a return to market growth perhaps being delayed until the end of the present decade. Even if the duration of the crisis is a little shorter than this, it will still have had an enduring impact on mortgage markets: for example, the longer that new lending is depressed the more is likely to be the depression of the stock of outstanding loans, and, in turn, the need for workers will be depressed.

Even when recovery occurs, however, the markets will be different from the past. A key driver of its future shape will be new, tighter regulatory regimes that will require more information, more verification, and more monitoring, all with greater responsibility placed on lenders for assuring the accuracy of the evaluations of mortgage applications. This suggests that more labour input per loan will be required and that lending institutions will develop new models which for some might include, for example, less use and for others more use of outsourcing through intermediaries. It may also lead to different configurations of skills.

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BRE Bank, Warsaw

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Dutch Central Bank (De Nederlandsche Bank),

Amsterdam Dutch Bankers Association (Nederlandse Vereniging van Banken), Amsterdam

European Mortgage Federation, Brussels

European Federation of Building Societies, Brussels

National Bank of Poland, Warsaw

Polish Bank Association, Warsaw.

PKO Bank, Warsaw

The European Federation of Insurance Intermediaries (BIPAR), Brussels

SHIP Ltd, London

Further drivers of the scale and nature of mortgage markets are tied to future developments that are central to the NEUJOBS project. The ageing of European populations, allied to concerns about the fiscal viability of existing commitments to health, social care and pensions, may encourage the development of reverse mortgage activity. The need for energy conservation through existing housing stocks will generate a demand for loans among existing owners of dwellings.

In responding to these developments, financial institutions will continue to seek productivity gains, often through the greater use of the internet and IT systems. This may also involve different patterns of outsourcing.

While these drivers are general to the EU they will impact on member states individually so that the employment outcomes can be expected to be member state-specific.

## 2. Mortgage Market Developments across the European Union

### 2.1 Development and nature of mortgage markets

#### 2.1.1 The size of the mortgage industry

There can be no doubting the size and importance of the European residential mortgage industry. For a decade or so leading up to the financial crisis mortgage markets in Europe increased markedly (table 2.1). By 2007 the total outstanding stock of mortgage debt held with financial institutions amounted to over €6,000,000 million, this being equivalent to about half of the combined GDP of the EU27. Each year from 2003 to 2007 new mortgage advances exceeded €1,000,000 million, which financial institutions increasingly, but not universally, funded from a number of sources including covered bonds and mortgage backed securities.

Table 2.1 EU Mortgage market

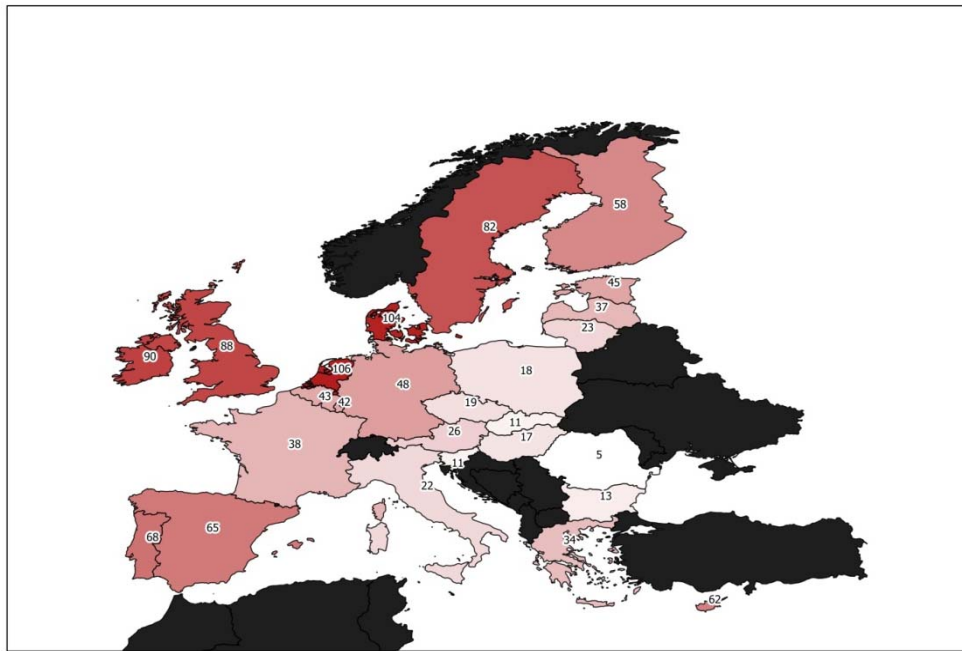
	Residential Mortgage Debt as % GDP	Gross new mortgage lending €m	Outstanding Residential loans €000m	Total Covered bonds outstanding (backed by mortgage) €m
1999	35.3	635,532	3,027	160,316
2000	35.7	594,688	3,263	410,244
2001	36.8	684,497	3,526	432,362
2002	38.9	819,202	3,873	507,059
2003	41.0	1,005,899	4,140	571,087
2004	43.2	1,067,106	4,577	634,421
2005	46.2	1,239,413	5,101	741,466
2006	48.6	1,357,925	5,682	920,559
2007	49.5	1,348,324	6,137	1,059,630
2008	48.6	992,113	6,061	1,370,001
2009	52.0	721,369	6,113	1,524,029
2010	52.4	729,043	6,414	1,672,984

Source: EMF (2011).



The growth of mortgage markets can be attributed to a number of factors. Government policies in many countries have liberalised financial sectors enabling the integration of housing and other financial circuits and thereby setting the foundation for expansion of both. In many European country policies have also favoured the growth of home ownership, for example by introducing tax subsidies against mortgage interest payments or selling off social housing. The increasing size of mortgage markets has also been dependent on European economies that were characterised over the decade leading up to 2007 by low interest rates which reduced the debt burden on households seeking to borrow large amounts of money, relative to their incomes, over long repayment periods. Moreover, in some member states, as the demand for home ownership and mortgages increased so did house prices which in turn not only increased the perception that housing was a good investment but also provided households with even higher levels of collateral to support even higher levels of borrowing.

Figure 2.1 Mortgage debt as percentage of GDP (2009)



Source: European Mortgage Federation, 2010.

Within this overall picture, the differences between countries are considerable (figure 2.1). Broadly, five regional groupings can be identified in each of which there are common trends albeit with some within group variation.

- (1) Anglo-Saxon. The UK and Ireland have developed mortgage markets with outstanding mortgage debt at 92 per cent and 88 per cent of GDP respectively.
- (2) Mediterranean. Of the southern countries, Spain and Portugal have had moderately large mortgage markets, while Italy and Greece are considerably less developed.

- (3) Scandinavian. Less so in Finland, mortgage markets are highly developed in Sweden and especially Denmark where outstanding mortgage debt reached 104 per cent of GDP
- (4) Northern, mainland. In each of Austria, Belgium France, Germany and Luxembourg outstanding mortgage debt is equates to between a quarter and a half of national GDP. With outstanding mortgage debt equivalent to 106 per cent of GDP, the Netherlands stands out as a major exception in this group sharing characteristics of the Scandinavian and the Anglo-Saxon countries
- (5) Eastern. In general, the newer member states have less developed mortgage markets, reflecting for many of them the relatively short, post-communist, period in which their wider financial sectors have been able to develop. Whereas mortgage debt as a percentage of GDP in 2009 was closer to the EU average in the Baltic states, especially Estonia and Latvia, in most it is in the range 10 to 30 per cent.

### 2.1.2 *Structure of industry*

Growth in the size of European mortgage markets has generally been accompanied by changes in the nature of the industry in terms of market structure, products, and business models.

#### **Products**

Historically, in most member states households were presented with a very restrictive product range in most cases based on a repayment loan which required a substantial deposit. During the 10 years or so leading up to 2007, providers in some countries introduced many new products with different interest arrangements, different loan to value ratios, and different repayment schedules so that prospective borrowers were presented with a wider array of mortgage options. In addition, new products especially interest only (Scanlon et al 2008) and reverse mortgages (Clerc-Renaud et al 2010) have enabled households to realise some or all of their real estate investments. For many, mortgage finance became a means of both saving and dis-saving housing assets.

#### **Mortgage providers**

In many member states there has also been a trend of opening up mortgage markets to new providers, thereby increasing competition among providers. In some cases these have been companies set up specifically to develop mortgage business. In others there has been horizontal expansion with institutions formerly specialising only in housing finance entering non-housing finance markets, and vice versa. This has resulted both in more providers of mortgage products and in institutions often selling many different categories of product, becoming providers of financial products in general rather than housing finance products alone.

In France, Germany and Spain, for example, the average purchase of a mortgage product is associated with the purchase of one or more additional financial products. In these countries, the mortgage is often the entry point for the relationship with the client. In the UK and Sweden, by contrast, such cross selling is less common (Oliver

Wyman 2007). One consequence of cross-selling is that it is often difficult to disentangle housing finance activities from other financial activities, and to be able to demarcate a housing finance sector from a non-housing finance sector.

### Distribution channels

Not only have the traditional products and traditional institutional distinctions been eroded in many countries, but traditional ways of doing business with customers have also changed. When applying for a mortgage, customers may apply directly to the lender through the head office or a branch. In many member states, however, this has increasingly been done remotely via telephone, post, or the internet. There has also been a marked trend of increasing use of indirect channels via a third party intermediary, some of whom will be *tied* (advisors who are linked to one specific financial institution), and others *independent* (that is offering advice on mortgages from a number of institutions such as a real estate, insurance or legal company).

The growth of indirect channels has been a strategic decision by individual institutions, but it also reflects the widening of the range of choices which puts greater demands on consumers' ability to make informed choices (Leece 2004). One estimate is that in the years leading up to 2007 indirect channels, particularly mortgage brokers, collectively accounted for over €500 billion of mortgages per year (40% of total) across 13 countries surveyed (Oliver Wyman 2007). Another study reports that, also in 2007, the share of intermediaries as a distribution channel was 41.5 percent in EU27, 42.6 percent in EU15 and 13.8 per cent in EU12 (Europe Economics 2009). Here, too, the variation across member states is considerable: in the UK intermediaries were responsible for 70 per cent mortgages, and in the Netherlands the figure was 45 per cent, but in countries such as Sweden, Finland, Cyprus and Lithuania it was 2 per cent or less.

#### 2.1.3 The Financial Crisis

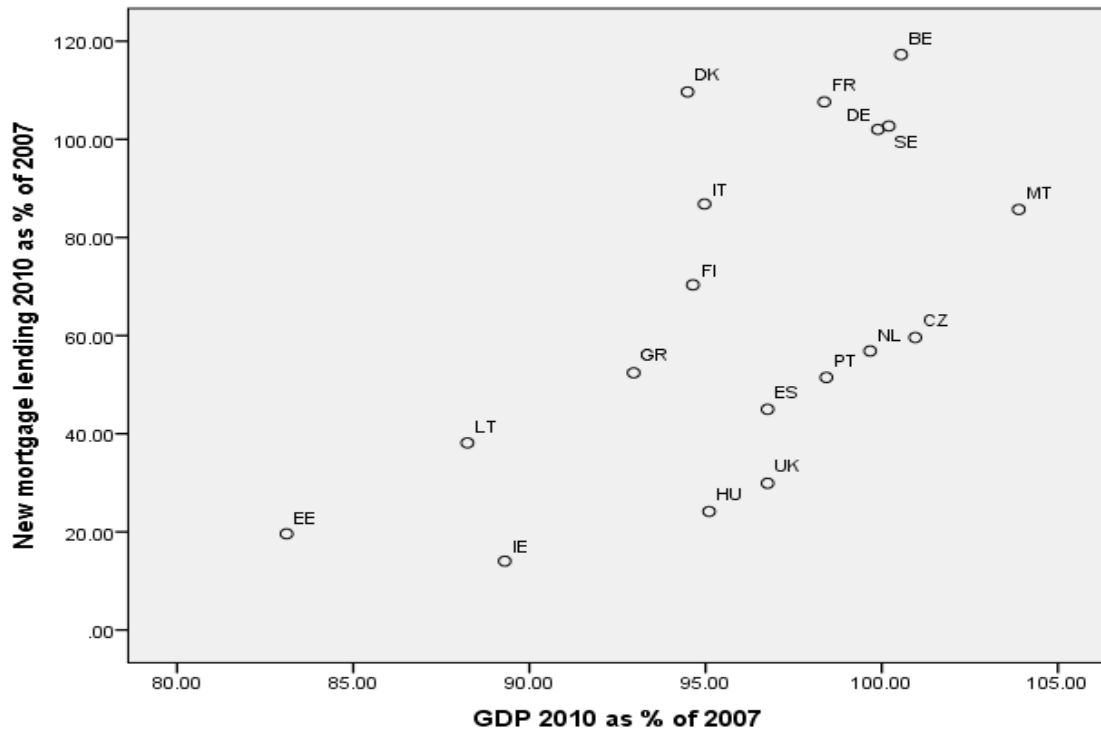
The present global financial crisis, which had its origins in the sub-prime lending in the US, has impacted on housing and mortgage markets across Europe. With respect to housing markets, new housing supply in many member states had by 2009 returned to 1998 levels (EMF 2010). Only in Poland, of 17 member states for which data are available, was new construction in 2010 higher than in 2007 (table 2.2). Van der Heijden et al (2011) show that the downturn has been greater in countries where the provision of home ownership has been mainly through large volume builders and speculative provision such as the UK and Ireland - than where there are high volume of self-build - as in Germany and Belgium.

Likewise, mortgage markets experienced substantial reductions in the overall amount of new lending, the 2010 amount being less than 60 per cent of the 2007 amount (table 2.1). Table 2.2 shows that the changes have been uneven across the member states. In Ireland and Spain, for example, the impacts have been especially large because of the high levels of lending by the banks to speculative property developers; based on expectations that prices would continue to rise, the subsequent fall in prices has left large numbers of unsold residential dwellings, high levels of bankruptcy with the banks holding large amounts of bad debt. In Hungary, by contrast, a major problem has occurred because the large proportion of Swiss franc and euro-denominated lending to households has been followed by high unemployment combined with a

falling value of the forint, resulting in large scale payment default. The actions of national authorities have also been significant. In each of the three case study countries - the Netherlands, Poland and the UK - for example, government actions to protect the banking sector have had a direct effect on new mortgage lending.

The general pattern of national changes in new mortgage lending can also be related to broader economic developments, measured by changes in GDP (Figure 2.2). In those member states where over the period 2007 to 2010 GDP growth was highest, there was also a tendency for new mortgage lending to increase. The collapse of mortgage market activity has not been a universal feature of post 2007 Europe therefore, but rather that activity appears largely to reflect the relative healthiness of macro economies.

Figure 2.2 Change in GDP and new mortgage lending (2007-2010)



On the basis of these trends it is possible to identify two general conclusions about the impact of the crisis that started in 2007 on housing finance markets. The first is that, on average, existing business, as measured by the total outstanding loans, has further developed although the annual increases experienced earlier in the 2000s have not continued, while the volume of new business, as measured by new gross lending, has declined. Insofar as the latter can be expected eventually to reduce the former, the present trajectory is of an industry that, taking the EU as a whole, is in decline. Clearly important here is the extent to which the present trajectory continues.

The second conclusion is that the overall picture varies considerably when the experiences of individual member states is considered.

Table 2.2 Change in residential mortgage lending 2007-2010

	Total outstanding residential loans € million			Gross residential loans € million			New construction
	2007	2010	2010 as % 2007	2007	2010	2010 as % 2007	2010 as % 2007
AT	65 897	80 000	121.40	-	-	-	97.73
BE	126 383	163 369	129.27	22 825	26 768	117.27	76.79
BG	2 868	4 453	155.26	-	-	-	-
CY	6 989	12 033	172.17	-	-	-	-
CZ	12 959	18 557	143.20	5 395	3 216	59.61	85.71
DE	1 155 742	1 152 195	99.69	119 600	122 000	102.01	84.86
DK	211 331	237 313	112.29	43 272	47 453	109.66	34.48
EE	5 568	5 971	107.24	2 137	419	19.61	-
ES	646 676	680 208	105.19	135 576	60 986	44.98	31.47
FI	61 720	76 244	123.53	28 931	20 349	70.34	66.67
FR	651 900	796 600	122.20	146 800	158 000	107.63	77.67
GR	69 363	80 507	116.07	15 199	7 966	52.41	-
HU	17 457	24 853	142.37	5 787	1 398	24.16	69.44
IE	140 562	135 806	96.62	33 808	4 746	14.04	11.54
IT	271 215	352 012	129.79	76 698	66 585	86.81	63.55
LT	4 853	5 988	123.39	1 854	707	38.13	-
LU	14 676	18 591	126.68	-	-	-	-
LV	6 647	6 498	97.76	-	-	-	-
MT	2 021	2 684	132.81	245	210	85.71	-
NL	544 697	629 153	115.51	108 725	61 824*	56.86	70.00
PL	35 966	67 669	188.15	-	-	-	123.13
PT	101 094	114 553	113.31	19 630	10 105	51.48	78.33
RO	3 932	6 769	172.15	-	-	-	-
SE	221 434	283 666	128.10	43 895	45 077	102.69	58.33
SI	2 670	4 837	181.16	-	-	-	-
SK	6 773	10 863	160.39	-	-	-	94.12
UK	1 745 907	1 442 685.	82.63	530 084	158 456	29.89	62.68
EU27	6 137 351	6 414 079	104.51	-	-	-	-

\*2009

Source: EMF (2010); EFBS (2010).

## 2.2 Employment

### 2.2.1 Numbers

Just as the scale of the financial activity of the European mortgage industry is clearly large, so is its contribution to European labour markets. What is not clear, however, is just how large it is: in short exactly how many jobs of what type are supported by the industry?

The lack of clarity arises partly because of the degree of integration of mortgage activity with other activities of financial institutions, the cross selling of financial products as well as the integration of investment and lending activities. For many financial institutions it is not clear how many jobs are supported by managing and providing mortgages when this is done alongside and is part of managing and providing insurance products, deposit accounts and other financial products.

Related to this, statistical data about employment levels harmonised across the member states do not separately identify mortgage from non mortgage employment. The financial sector is covered by SIC codes:

- 65, which covers financial intermediation, except insurance and pensions.
- 66, which covers insurance and pension funding, except compulsory social security.
- 67, which covers activities related to financial intermediation.

Although there was a revision in 2008, which has mainly affected code 65 through the addition of some management activities (formerly recorded as part of business services in code 74), these are small.

Available for all member states individually, the data provide an accessible record of changes over time. They do not, however, identify mortgage-related employment, which, depending on country and year, fall into different sub-codes of each of 65, 66 and 67. Thus some mortgage lending may occur through banks for which employment is recorded as part of 65, through insurance companies for which employment is recorded in 66, and through mortgage advisers who are counted in 67. Partly because of the integration of mortgage and non-mortgage activities, however, evidence about the financial sector as a whole does provide some indications of employment in mortgage activities.

During the last three decades of the twentieth century, financial sector employment outstripped employment in service industry in general which itself had experienced a secular increase in employment, with decreases in manufacturing industry and agriculture (D'Agostino et al 2006). But, from the very last years of the century employment growth in the financial sector, relative to other services, began to slow. Between 1996 and 2006 growth in the financial sector was 0.5 per cent compared with 3 per cent for other services. In some countries - Austria, Belgium and Italy - the employment totals remained about level, while in some - Finland, Germany and Portugal - they actually declined (ILO (2009)). The lower growth rate is largely attributable to high level of internal re-organisation as companies sought productivity gains. An important element in this was the development of ICT technologies enabling reductions in back-room administration as well as the use of the internet, as well as to mergers and acquisitions with firms seeking economies of scale and scope.

*Table 2.3 Employment in financial sector (SIC 65,66,67)*

	2007	2010	2010 as % of 2007
AT	134 876	148 470	110.08
BE	161 515	157 506	97.52
BG	43 715	52 695	120.54

CY	18 750	19 486	103.93
CZ	101 235	115 286	113.88
DE	1 297 541	1 319 083	101.66
DK	85 429	88 631	103.75
EE	9 385	9 439	100.58
ES	500 367	462 946	92.52
FI	50 445	49 130	97.39
FR	820 917	861 033	104.89
GR	114 188	113 917	99.76
HU	84 707	90 960	107.38
IE	89 486	89 931	100.50
IT	661 353	660 286	99.84
LT	22 287	22 047	98.92
LU	21 389	26 468	123.75
LV	21 528	18 296	84.99
MT	6 518	6 490	99.57
NL	270 757	215 835	79.72
PL	361 711	370 755	102.50
PT	95 587	87 811	91.87
RO	97 217	132 044	135.82
SE	88 441	98 669	111.56
SI	23 978	26 094	108.82
SK	47 444	47 729	100.60
UK	1 268 529	1 158 818	91.35
EU-27	6 497 274	6 449 855	99.27

Source EU LFS

By 2007 financial services supported 6.5 million workers. Of these approximately 65 per cent were in banking (65), 20 per cent in insurance and pensions (66), and 15 per cent were intermediaries, including agents and brokers (67). As a share of total employment for the EU as a whole was about 2.7 per cent. Employment levels varied across the member states countries. It was especially low in many of the newer member state, while in France, Germany, Italy, Netherlands, Poland, Spain and the UK together constituted about 80 per cent of the EU27 total ( Table 2.3). One consequence is that much of the variation in the characteristics of financial sector employment can be gleaned from the evidence of these seven countries alone.

### 2.2.2 Occupations, education, skills and gender

Across Europe as a whole, the proportions in each occupational group, education level, age and gender differ little between the three sub-sectors, 65, 66 and 67. In comparison with jobs in economies as a whole they show some distinctive features. Firstly, the proportion of total employment in 2006 in three occupational groups - legislators, senior officials and managers; computing and IT; and business professionals - accounted for about 40 per cent in the financial sector across the older member states

(EU15) and 60 per cent in the newer member states (EU10) as compared with about 15 per cent and 11 per cent respectively in their total economies (table 2.4). Secondly, and related, the proportion in lower grade occupations of service workers, craft and related trades and elementary occupations account for only about 4 per cent of the total in both the EU15 and EU10 financial sectors compared with over half of the workforce in their economies as a whole.

*Table 2.4 Employment in financial sector: percentage in each occupation class (2006)*

	Financial services									Total economy	
	Germany	France	Italy	Neths	Poland	Spain	UK	EU15	EU10	EU15	EU10
Legislators, senior officials and managers	4.4	29.5	7.6	9.5	10.4	13.8	25.5	15.2	10.1	9.0	6.0
Computing professionals and computer associate professionals	3.5	4.5	1.8	7.9	5.0	3.6	5.5	4.2	4.1	1.9	1.2
Business professionals, finance and sales associate professionals	8.8	9.6	42.1	29.4	47.7	23.7	23.5	21.4	44.1	4.6	3.6
Professionals, technicians and associate professionals	29.6	17.8	10.8	22.6	10.8	18.9	3.3	15.7	15.0	24.4	20.6
Clerks	51.0	31.0	34.9	28.5	23.6	37.3	37.8	39.7	22.7	11.9	6.6
Service workers and shop and market sales	0.4	6.2	0.9	0.8	0.8	0.7	1.5	1.6	1.2	14.2	12.5
Craft and related trades	0.5	0.4	0.7	0.3	0.3	0.7	0.6	0.5	0.8	21.5	28.8
Elementary occupations	1.8	1.0	1.1	0.9	1.4	1.2	2.3	1.7	2.0	12.6	20.8

*Source:* Kaisergruber et al 2009.

While financial sectors are skewed toward high grade occupational groups, the distribution of occupations also varies between countries. Thus among the seven countries with the largest financial sectors included in table 2.4, over a half of the workforce in Germany are clerks, whereas they account for only a quarter in Poland. Similarly, computing occupations account for almost 8 per cent of the total in the Netherlands but under 2 per cent in Italy. Likewise there are variations as between the newer and older member states. All the new member states have a larger share of professionals than of clerks, whereas in the older member states the shares are more equal.

These variations may be partly explained in terms of the structure of the labour force in national economies or the organisation of work activities: to the younger and more professional working population in the newer member states, and to the older member



states holding onto traditional work patterns with a high number of back-office employees, for example. But such differences might also reflect “the fact that similar jobs require different qualifications in different countries or are defined differently” Kaisergruber et al (2009:43). Whatever the explanation, however, it seems likely that the distribution of occupations similarly varies across national mortgage markets.

Over the first half of the 2000s the changes in the proportion of employees in each occupation differed by country. For example, the proportion of senior official and managers increased in the UK (4.4 percentage points) and France (3.4) whereas it decreased in Germany (-0.8) and the Netherlands (-1.4). More consistently, the share of IT professionals increased slightly in all countries, as they did in the newer and older member states, across their financial sectors and their entire economies.

There are also great differences across countries in the educational levels attained by employees in each of the occupation categories. In France 81.0 per cent and in Poland 76.9 per cent of IT professionals were in the “high” educational level, whereas it was 53.5 per cent in Germany and 21.9 per cent in Italy. Notwithstanding such variations, the general trend throughout the 2000s was for an upgrading of education attainment levels. The proportion of low-skilled employees and people with just basic schooling continues to decrease for all occupation groups and for the older and the newer member states. Overall, then, the financial sectors across Europe have been shifting toward a higher skill profile.

Overall, then, a high proportion of jobs in financial sectors are in professional occupations and are taken by people with high levels of educational attainment. This supports the view that the sector is characterised by high incomes and to that extent the sector makes an important contribution to the income profiles of European workers. But, contrary to the popular belief about incomes in the sector, many of its workers are actually low-paid. This is likely to be the case for many of the clerks and those employed in sales and routine administrative functions.

Financial sectors are also important as employers of women. Among the lower grade occupations of service workers, craft and elementary occupations, there are actually higher proportions of women than in the economies of the EU10 and EU15, but these groups are relatively small in financial sectors. Among the numerically more dominant occupation groups, in most cases women are represented at about the same level as they are in total economies.

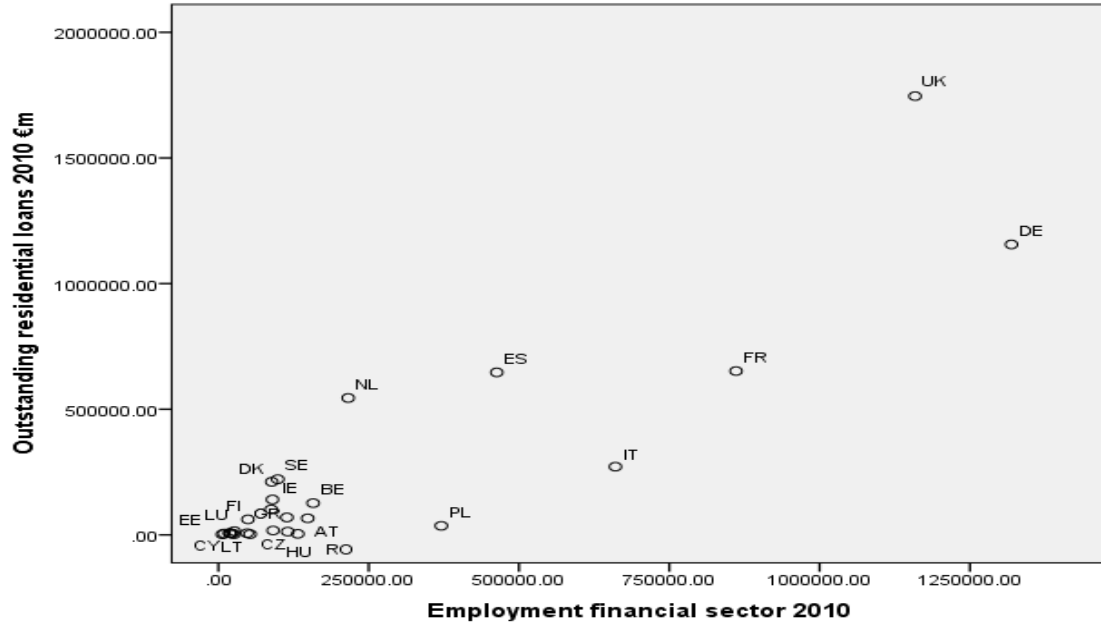
### 2.2.3 *Employment and mortgage markets*

Although data about employees in national financial services sectors do not directly provide measures of employees working in mortgage markets, they nevertheless do provide some insights.

Figure 2.3 indicates a significant positive correlation ( $r=0.89$ ) between mortgage activity, measured by the value of outstanding loans and the total number employed in financial services. Clearly there is a scale factor operating here with large economies having both large financial sectors and large mortgage markets. However, figure 2.4 indicates that when employment in financial sectors is adjusted by total employment and outstanding loans related to GDP, provided that Luxembourg is treated as an

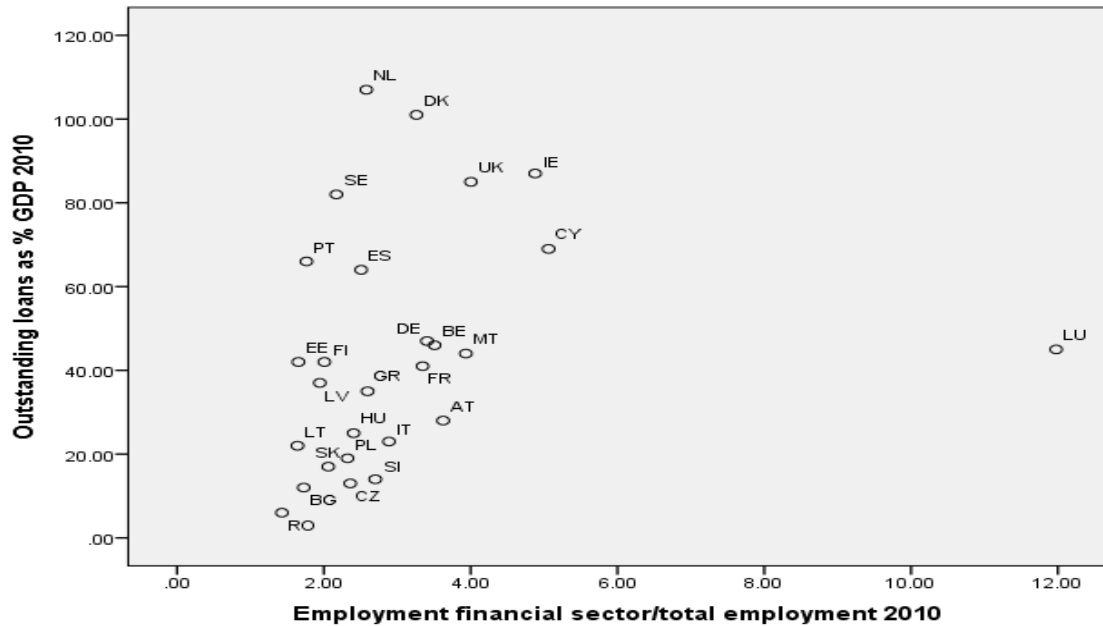
outlier by virtue of its particular focus on financial services, the relationship is similarly positive ( $r=0.45$ ).

Figure 2.3 Employment in financial sectors and the value of outstanding loans



Both relationships point to a symbiotic relationship between housing finance markets and wider capital markets. On the one hand, the development of housing finance markets appears to be enhanced by well-developed and de-regulated capital markets with (Wolswijk 2005). On the other hand, the development of a large and buoyant mortgage market might be expected to contribute positively to a more resilient financial sector (Buckley, Chiquier and Lea 2009)

Figure 2.4 *Employment in financial sectors as a proportion of total employment and the value of outstanding loans as a % of GDP*



On this basis, data about employment in financial services as a whole in each member state may be taken as indicative of the scale of employment in their mortgage markets, and it may also be possible reasonably to conclude that the jobs in firms providing and servicing mortgage products are, as the financial sectors as a whole, likely to be skewed toward higher educational, skill and pay levels. In that sense many of these are high status jobs, requiring and rewarding high levels of human capital, and making particularly valuable contributions to national labour markets.

### The financial crisis

A report by the International Labour Office provides largely anecdotal evidence about job losses in financial sectors as a direct result of the financial crisis:

Not surprisingly, given that the sector has been at the epicentre of the financial and economic crisis, jobs in financial sectors around the world have been strongly affected, with announced layoffs totalling 325,000 between August 2002 and 12 February 2009. These figures almost certainly understate the real situation, as announcements of job cuts are not always forthcoming. They are also unlikely to include layoffs from independent mortgage brokers, other independent contractors who provide subcontracting services to financial institutions, or the multitude of small financial firms who would not have had the resources to weather the crisis and may have gone out of business entirely (ILO 2009).

Table 2.3, however, indicates that the changes in the numbers employed have been far from the widespread and large scale reductions suggested. Whereas employment fell markedly in a number of the countries with large financial sectors – the Netherlands, UK and Spain – in some others with large sectors – Germany, France and Poland –

employment grew, albeit only slightly. Over the EU27 as a whole, the fall was less than 1 per cent. Among the EU15, employment increased in 7 and declined in 8, whereas among the EU12 the numbers were 9 and 3. On these figures, therefore, the impact of the financial crisis on financial sector employment has been mixed, and as figure 2.1 indicates reflects national GDP developments.

It might reasonably be concluded that the pattern of gains and losses of employment in mortgage markets would be similarly mixed.

### ***2.3 The future of mortgage market employment***

Across the member states of the EU, mortgage markets have varied, not only in size relative to GDP, but also in the types of financial institutions offering mortgages, their products and their business models, as well in national policy and subsidy frameworks. Equally, they have varied in the impact of the post 2007 financial crisis depending on such factors as their levels of public debt and the exposure of their banks to bad debts. All of these have contributed to different levels and types of employment supported by mortgage activity.

Path dependency theory suggests that these different national pasts will also shape different national futures. The first key to the future contribution that mortgage markets in member states will make to their labour markets, however, lies in the timing and nature of economic recovery. There appear to be strong links between financial sectors in general, mortgage markets and GDP. Employment will be determined by the scale of mortgage activity, that is the size of mortgage markets, which, in turn, will be influenced by the scale and nature of economic activity.

But, it can be expected that the future size of mortgage markets will also depend on changes in the demand for mortgages brought about by other developments, integral to the NEUJOBS project, impacting on European households. The combination of demographic ageing and the desire of member state governments to reduce fiscal tensions resulting from current state responsibilities, could lead to increases in the utilisation of wealth held in the form of home ownership (WP5,7 and 12). Likewise, the further pursuit of energy renovation targets across housing stocks could be dependent on the extension of loan opportunities for households (WP 11 and 14).

Whatever the scale of mortgage activity, however, it may be expected that the actual level of employment generated will depend on the particular configuration of labour and technology in the mortgage industry. In part this will be shaped by the route out of economic recession and the impositions made by new regulatory regimes, but it will also depend on the search for productivity gains, which will involve the development of new information technology systems (WP 3, 4 and 9).

In the following three case studies aspects of both cross country variation and future growth possibilities are explored.

### 3. The Netherlands

#### 3.1 The past development of the mortgage market

##### 3.1.1 Expansion up to 2007

From the outset of the 1990s, liberalisation resulted in the consolidation of the financial sector in the Netherlands to become one of the most concentrated in Europe. The mortgage market itself is dominated by commercial banks with Rabobank, ING and ABN/AMRO holding half of all outstanding mortgage debt. Throughout the 1990s the commercial banks collectively held about 80 per cent of the total stock of outstanding mortgage debt (table 3.1). Whereas, during this decade the remaining 20 percent was held by insurance companies and pensions funds, the 2000s saw the rise of special mortgage banks, known as Special Purpose Vehicles (SPVs), which by 2007 held a quarter of the total mortgage debt and by 2010 a third.

Table 3.1 Outstanding residential mortgage debt by market share of organisation (%)

	MFI	SPV	Pensionfunds	Insurers	Investment companies	Total
1996	79.8	0.1	7.5	12.5	0.0	100.0
1997	81.0	0.9	6.4	11.6	0.1	100.0
1998	81.8	1.1	5.8	11.1	0.2	100.0
1999	81.0	2.4	4.7	11.8	0.1	100.0
2000	81.1	4.3	4.0	10.5	0.1	100.0
2001	80.8	6.4	2.9	9.8	0.1	100.0
2002	75.1	9.9	2.9	12.0	0.1	100.0
2003	75.2	13.8	2.5	8.4	0.1	100.0
2004	76.6	14.4	2.2	6.7	0.0	100.0
2005	76.4	16.4	1.6	5.6	0.0	100.0
2006	72.5	21.1	2.0	4.3	0.1	100.0
2007	68.7	25.7	1.9	3.6	0.0	100.0
2008	63.4	31.0	1.9	3.7	0.0	100.0
2009	61.2	33.2	1.7	3.9	0.0	100.0
2010	57.2	36.8	1.7	4.3	0.0	100.0
2011	58.1	35.2	1.6	5.1	0.0	100.0

SPV = Special Purpose Vehicle, securitised mortgages (around 85 from MFI's according to Dutch National Bank)

Source: Dutch National Bank, table 11.1 Assets of households.

The size of the securitisation market in the Netherlands developed rapidly during the 2000s (table 3.2). Even before the very end of the decade, it accounted for 20 per cent of all European securitisation (van der Wal and Lub 2009). The expansion of securitisation has been part of a general growth in mortgage lending through the 1990s into the 2000s. The stock of outstanding mortgage has grown to exceed 100 per cent of GDP (table 3.2). This growth outstripped the capacity of retail deposits, so that retail mortgage backed securities, and to a lesser extent covered bonds (table 3.2) filled the funding gap.

Table 3.2 Netherlands Mortgage market

	Residential Mortgage Debt as % GDP	Gross new mortgage advances €m	Outstanding Residential Mortgage Debt €000m	Total Covered bonds outstanding (backed by mortgage) €m	Retail Mortgage Backed Securities €m
1999	60.7	78,032	234,385	n/a	3,843
2000	68.2	69,593	285,252	n/a	7,430
2001	73.0	72,609	327,045	n/a	9,171
2002	80.2	81,385	373,198	n/a	17,511
2003	83.9	95,996	400,153	n/a	17,900
2004	88.2	87,164	433,383	n/a	16,060
2005	93.5	114,134	480,191	2,000	25,000
2006	96.7	119,872	511,156	7,500	26,500
2007	97.8	108,725	544,697	15,727	35,300
2008	99.2	91,881	588,552	20,977	49,400
2009	105.4	61,824	613,877	28,367	40,894
2010	107.1	n/a	629,153	40,764	124,990

n/a no figures available

Source: EMF (2011).

According to van Dijkhuizen (2005) the increase in mortgage debt was the result of a number of factors. Prominent was the liberalisation of the mortgage market with the increase in competition among providers, in combination with a fiscal regime which allows the deductibility of mortgage interest. Initially, deductibility was unlimited, resulting in development of mortgage products that took maximum advantage of the fiscal opportunities, including products that allowed interest rate deductions throughout the entire duration of the mortgage. For the decade following 1995 about 90 per cent of the loans extended were not due to be repaid until full maturity, and about 30 per cent, being interest only mortgages, did not need to be repaid at all (van Dijkhuizen 2005). By 2008, 48 per cent of total mortgage debt was in the form of interest only mortgages (Toussaint and Elsinga 2010).

Further supporting the tax deductibility arrangements was a loan guarantee system. The Nationale Hypotheek Garantie (NHG) provides protection against debt servicing problems due to events such as divorce or unemployment, by covering mortgage payments to the bank. The guarantee also provides protection against a fall in house prices where a forced sale is necessary. In addition, there has been a general tendency for borrowers to maximise the amount of their loan, an objective which the institutions have been generally supportive with the practice of loans exceeding 100 per cent of house value. This was justified on the grounds that the demand for home ownership was buoyant, house prices would continue to rise and the guarantee scheme in any case protected against price falls.

The combination of these arrangements and the products that maximised tax efficiency have resulted in a tendency for Dutch home owners to remortgage so that a smaller

proportion of the number of advances each year have been allied to a house purchase: in 1995 64 per cent of advances were for intital purchase, by 2003 the figure was 46 per cent. Moreover, of those seeking second mortgages or remortgaging many are increasing the size of the loan and extending the number of years that they are repaying.

### 3.1.2 *The financial crisis*

In the Netherlands, as elsewhere in Europe the credit crisis has had a large impact on the financial sector. This was not initially the case. For a while the banks did not appear at great risk and the Dutch economy remained stable. By 2008 however the authorities were intervening on a large scale in order to provide stability to the sector: the government took over parts of the Fortis Bank and ABN AMRO, and subsequently taking some of the risks of US mortgages held by ING.

The total number of home ownership transactions had been fairly constant at around 250, 000 house per year throughout the period 1997 to 2007, but by 2009 transactions had fallen by about 40 per cent to around 150,000 per year. The annual number of mortgages advanced, which is related with the number of transactions, similarly fell. This is consistent with the money amount of total new advances in 2008 and 2009 (table 3.2). There have been similar adjustments in other indicators. House prices, increased steadily from 1996 to 2008, at which point they dipped and until 2011 at least were fairly flat. The average mortgage closely matched the average price, that is equating with an market average loan to value ratio of 100 per cent, until about 2011. After that, the market loan to value ratio grew beyond 100 per cent, but since 2010 has converged back to the 100 per cent level.

In part these changes reflect developments in the supply and conditions governing mortgages. As a consequence of tightened eligibility conditions for a National Mortgage Guarantee, some dual-income households have a 30 per cent lower borrowing capacity. In addition, more stringent mortgage conditions have been agreed, in the form of a Code of Conduct, by the Dutch Ministry of Finance, the Netherlands Authority for Financial Markets and the Netherlands Bankers' Association. These include a cap on loan to value ratios of 110 per cent and a 50 per cent cap on the proportion of house value that can be covered by an interest only loan. The conclusion of Bouwfonds (2011) is that the overall effect, especially when combined with a rising mortgage interest rate, is an increasing difficulty facing people who want to get a mortgage, especially for those with lower incomes.

In addition to those seeking mortgages for new purchases, almost half of mortgaged households will need to renegotiate their mortgages within the next the next five years, and many will be forced to pay a higher interest rate than they currently do. On top of higher energy and water costs, the affordability of home ownership will come increasingly under pressure for many Dutch households (Bouwfonds 2011). Furthermore, "poor economic performance and uncertainty about a number of long-term variables such as the future of mortgage relief, make circumstances difficult for house buyers... consumers are faced in the short term with the challenges of poor labour market prospects and planned government cutbacks" (Rabobank 2012: 3)

## 3.2 Employment

### 3.2.1 Numbers

The financial sector as a whole employs about 4 per cent of Dutch employees (table 3.4). In the past, most mortgages were sold directly through banks (65) and insurance companies (66), but increasingly over the last decade or so these organisations were using large chains of intermediaries (recorded in 67) to provide them with some proportion of their business (Boelhouwer (2002).

The employment figures relate to all financial services and not only to those related to mortgages. However, whereas total outstanding mortgage debt and new gross lending per annum both increased by about three fifths between 2000 and 2007 (table 3.3), employment in the financial sector hardly changed. But with a fall in gross new mortgage lending of two fifths between 2007 and 2010, there was a reduction in employment of about 8 per cent, with a reduction of about 13 per cent for those working in Other Financial Services. The crisis as it has impacted on mortgage markets thus may have led to a particularly large reduction in mortgage brokers.

Table 3.3 Total employment Financial Sector (SIC 65,66,67) (Thousands)

	65: Banking	66: Insurance and pension	67: Other financial services	Total
1970	98	25	24	147
1980	133	35	34	201
1990	146	47	46	239
2000	171	58	70	299
2001	174	59	71	304
2002	169	59	72	300
2003	162	59	72	294
2004	158	57	71	286
2005	160	55	72	288
2006	162	61	74	297
2007	164	60	74	298
2008	158	60	73	290
2009	158	59	70	287
2010	149	60	63	273

Source: Statistics Netherlands.

### 3.2.2 Skills and gender

Table 3.4 shows for sector 65 that increasingly those employed have a high level of educational attainment, with over half in 2010 having at least a university degree.

Table 3.4 Educational Attainment Financial Intermediation (SIC 65) Netherlands (%)

	2000	2005	2010
Low	12.5	10.0	9.0
Medium	49.1	42.0	35.0
High	38.3	48.0	56.0
Total	100	100	100

Source: EU Labour Force Survey.



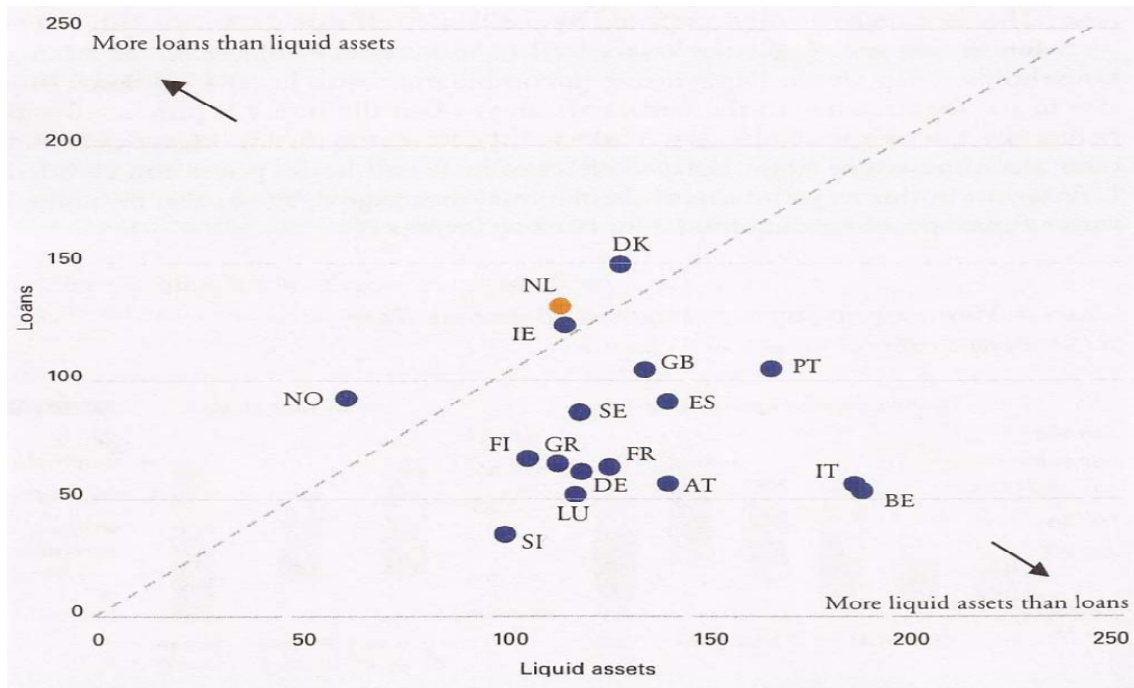
The educational attainment of employees is reflected in the high average wage rates which for the financial sector as a whole are second only to jobs in the mineral extraction sector. (CBS2011). In the Banking sector (SIC 65) almost a half (47 per cent in 2009) of employees were women, and in the Insurance and Pension sector (SIC 66) the figure was 42 per cent (CBS 2011)

### 3.3 *The future of the mortgage market*

The prospects for the Dutch mortgage market are tied, in addition to the broader economic recovery, to the views of the Dutch authorities about what level of housing market activity is seen as desirable. The position of the Central Bank is dominated by concerns about the financial stability of the banks, which is deemed at risk because of their reliance on capital markets in order to fund the demand for mortgages. Because this demand so greatly exceeds retail deposits, their conclusion is that the demand is higher than it should be. In turn, the authorities support the actions of the Netherlands Authority for the Financial Markets (AFM) in trying to depress loan to value ratios from their recent, internationally-high, levels. In addition, there is support for reduction in the level of income tax relief provided against mortgage interest payments, which is also at internationally-high levels.

The extent to which such policy changes could be pursued, however, is constrained by both political and financial stability concerns. Figure 3.1 indicates that the Netherlands is one of a small number of western European countries in which the household sector has more loans than liquid assets, measured as the sum of savings and securities. Younger households with average to high incomes are especially vulnerable often because they have taken high mortgages relative to their incomes and house value (De Nederlandsche Bank 2012). Large reductions in tax relief and loan to value ratios would be expected to depress house prices further which would push many more Dutch households into negative equity. They could, in addition, lead to many more Dutch households being unable to meet their mortgage repayments which could hit particularly those households who are required to refinance their loans. Such outcomes would in turn lead to more households being unable to meet their housing costs with an associated increase in defaults and foreclosures. Such developments might well make the capital markets less willing to provide funding for banks. There is thus a tension between the reducing the demand for mortgages and reducing the exposure of Dutch households, on the one hand, and maintaining the confidence of capital markets to continue to provide funds to support the mortgage activities of Dutch financial institutions.

Figure 3.1 Financial Assets of Households



Source: De Nederlandsche Bank (2012).

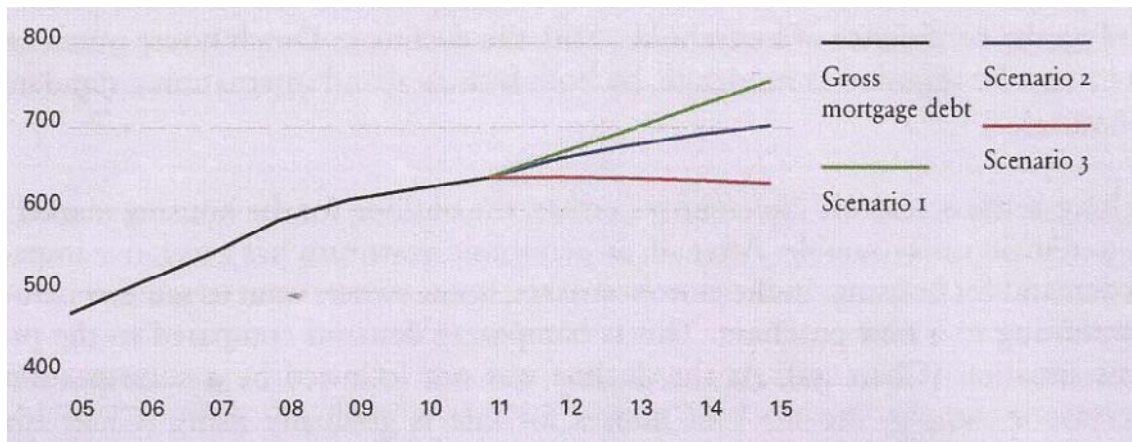
Such considerations mean that the Dutch authorities are likely to seek to achieve only incremental tightening of the regulation governing mortgage agreements and only small reductions in mortgage interest relief (De Nederlandsche Bank 2012). Given this, it is possible to provide projections of outstanding mortgage debt in the short-run. Figure 3.2, which provides simulations for the period 2011 to 2015, based on the assumption that when houses are re-sold the purchasing household will take a mortgage at least as large as the house price. With tax deductibility and LTV little changed from the existing regime, such behaviour by households would continue to be rational.

Three scenarios are considered:

1. House prices grow by 2.5 per cent annually, the number of transactions recover to pre-crisis level and the number of owner occupied homes increases in line with previous trends.
2. House prices fall 25 per cent by 2015, but the number of transactions recovers to pre-crisis level and the number of owner occupied homes increases in line with previous trends.
3. House prices fall 25 per cent by 2015, but the number of transactions falls by half and there is no increase in the number of owner occupied homes.

Only in the last of these scenarios will the total amount of outstanding mortgage debt decline, and with that the need for capital market funding at current levels. In the longer run, therefore, measures to reduce risk to the financial stability of both banks and households may involve larger reductions in both loan to value ratios and mortgage deductibility.

Figure 3.2 Simulation of gross mortgage debt growth



Source: De Nederlandsche Bank (2012).

### 3.4 Employment 2025

Whereas the simulations reported in figure 3.2 cover the period to 2015 only, they indicate the critical importance of the current regime governing mortgage approvals. Only in the case where by 2015 prices fall by 25 per cent and transactions fall by 50 per cent will the mortgage market activity not continue to increase. These projections are consistent with the policy objective of achieving stability in mortgage markets and especially in the confidence of the markets in the safety of mortgage backed securities. Should the Dutch authorities persist in the view that the overall mortgage debt needs to be reduced in order to reduce the reliance on capital markets and they are able to achieve reductions in loan to value ratios and tax deductibility, this would suggest a smaller mortgage market by 2025.

The projections do not specifically relate to employment, but it can be anticipated that banks will make adjustments reflecting their levels of activity. It can also be expected that there will be further improvements in efficiency so that employment supported by the mortgage market may well be lower than at the 2007 peak, and probably lower than the current level.

## 4. Poland

### 4.1 The past development of the mortgage market

#### 4.1.1 Expansion up to 2007

In Poland, the initiation of market reforms from 1990 was set against a housing system in which there was considerable excess demand combined with low quality stock. At that time, only 44 per cent of the stock was privately owned and the housing finance market was very underdeveloped partly as a result of high interest rates and considerable economic uncertainty.

Since then the Polish residential housing market has been transformed. With the transition, after 1990, into a market-based economy, Poland experienced almost two decades of high GDP growth. This was linked to rapidly increasing wages, remittances from abroad, and historically low interest rates. From a low base, there was a rapid

increase in the number of new mortgages advanced and in the total value of outstanding mortgages. Residential mortgage debt grew from 1.9 per cent of GDP in 1999 to 11.4 per cent in 2007 (table 4.1). Partly as a result of the sale of cooperative, municipal and employer-provided housing, often with large discounts on the market value, the proportion of the housing stock that was owner occupied grew to 78 per cent by 2006 (Kierzenkowski 2008).

Table 4.1 Poland Mortgage market

	Residential Mortgage Debt as % GDP	Outstanding Residential Mortgage Debt €000m	Total Covered bonds outstanding (backed by mortgage) €m	Retail Mortgage Backed Securities €m
1999	1.7	2,745	n/a	0
2000	2.1	3,968	n/a	0
2001	2.7	5,764	n/a	0
2002	3.4	7,061	n/a	0
2003	4.5	8,693	160	0
2004	4.7	9,642	220	0
2005	6.0	14,646	558	0
2006	8.4	22,795	453	0
2007	11.4	35,966	676	0
2008	15.6	56,539	561	0
2009	18.2	56,630	588	0
2010	19.1	67,669	511	0

Source: EMF (2011).

One of the turning points that stimulated these developments was the 1997 Act on Mortgage Bonds and Mortgage Banks, under which mortgage banks, specialised financial institutions, were given the right to issue mortgage bonds. In this they were following the German model of Pfandbrief, financial instruments that provided long term financing for mortgage loans. Many of the universal banks which provided mortgages had not established their own mortgage banks so that the majority of their housing loans were funded from short-term deposits Skiba (2005).

Fuelled especially by membership of the European Union in 2004, demand for housing increased and house prices, which had previously been fairly static, increased rapidly. A large proportion of lending was in foreign-dominated loans, especially in Swiss francs and this “triggered and drove the entire process, similarly to sub-prime loans in USA” (Laszek 2012: 9). Raised directly from capital markets or by parent banks, this contributed to the stability of the financial sector. Interest rates on Swiss franc were lower than on either Euro or Zloty loans though they imposed an exchange rate risk on borrowers. For banks, they could realise a higher margin and make a profit from currency conversion. Throughout the 2000s they made up at least half of outstanding mortgage loans.

In 2004-2006 falling interest rates and rising household incomes resulted in further increases in demand for housing, in turn fuelling and being fuelled by increasing house

prices. For their part “the banking sector gave in to the temptation of quick profits and got involved in the speculative game by granting more loans on the basis of the increasing collateral value rather than on the basis of creditworthiness” (Laszek 2012: 12). During this period the maximum loan to value ratios were increased, beyond 100 per cent in the case of Zloty loans and 80 per cent for foreign currency loans, with the maturity extended for the former to 22.5 years and the latter to 17.5 years (Kierzenkowski 2008).

Mortgage market activity thus demonstrated continuing increases over the period up to 2007 in outstanding mortgage debt, with significant increase also in the covered bond market (table 4.1). Yet, in comparison with many other member states the mortgage market remained small. Whereas the proportion of the adult population having a consumer loan was very slightly higher than the EU average, the proportion having a mortgage was only about two-fifths of the EU average (Intelace 2011).

#### 4.1.2 *The financial crisis*

As elsewhere in Europe, the 2007 credit crisis and the subsequent financial crisis have had an impact on the Polish mortgage market, though actually “the crisis in the Polish residential market proved decisively less severe than commonly expected and its impact was much less acute when compared to other European countries” (PWC 2011: 5). In part this was a consequence of a general robustness of the Polish economy in which GDP continued to increase, supporting demand and the ability of households to meet their repayment commitments. In addition, the direct impact on the Polish banking sector of developments emanating initially from the US sub-prime were limited (Kierzenkowski 2008).

Further, the crisis started to trigger supervisory activity. The Polish Supervision Authority (Komisja Nadzoru Finansowego – KNF) had been formed in 2006 to become the unified watchdog for the Polish financial sector. Recommendation S, which despite its formal name was effectively mandatory, was implemented in 2006 placing restrictions on foreign currency loans (see table 4.2). In June 2008 banks were required to maintain specific liquidity standards, the package of arrangements helping to ensure that the banks came through the immediate crisis years without resorting to state aid (The Polish Financial Supervision Authority 2011). Before the crisis, loans in excess of 80 per cent of house value were common with some banks offering 110 per cent. Recommendation T, which came into force in 2010, recommended for foreign denominated loans a maximum LTV ratio of 90 percent if they were to be repaid over 5-years, and 80 per cent for longer periods. It also recommended ceilings on monthly repayments of 50 per cent of income for those below national average income, and 65 per cent for those above. KNF also required a decreasing ratio of loans denominated in foreign currencies.

Table 4.2 Regulatory framework

Recomendation SI July 2006	Recomendation SII Dec 2008/ April 2009	Recomendation T March 2010	Recomendation SIII 2011
<p>*Calcualtion of clinet's ability to repay a FX denominated loan more rigorous.</p> <p>*Loans in local currency to be offered ad first and preferred choice.</p> <p>*Extensive suimulations presented to client in advance of signing.</p>	<p>*Bank to inform clients of foreign currency spreads and consequences.</p> <p>*Banks to enable cliemts to repay FX loan in original currency of the loan.</p>	<p>*Only 50% of client's income(65% i fhigher incoem) recognised as monthly payment (on all bank loans)</p> <p>*Obligatory client stress tests</p> <p>*Srticter permanent monitoring of debtor and collateral value</p> <p>*Reduced LTV ratios.</p>	<p>*Ratio of monthly payment to income reduced to 42 % for FX loans</p> <p>*Maximum loan maturity reduced to 25 years</p>

Source: Inteliace (2012).

Together, these factors contributed to a number of developments in Poland's housing and mortgage markets, although some of these were rather minor marking a fairly smooth and orderly transition.

Firstly, house prices fell markedly in 2007-2008, but at least in the main cities have been more stable in the subsequent period up to the third quarter 2012 (NBP 2012). The number of transactions have also decreased since 2007, but overall the housing market is operating.

Secondly, whereas the share of non-performing retail loans rose markedly from 6.4 per cent in 2007 to 17.2 per cent in 2010, the rise was far more muted in mortgages: 1.7 to 2.8 per cent for PLN mortgages and 0.7 to 1.3 per cent for foreign exchange mortgages (Intelace 2011). Polish banks were not therefore encumbered by a bad housing-debt problem.

Thirdly, following 2007 there has been a tightening of the standards applied by Polish banks in granting housing loans. Although in 2007 and 2008 total mortgage lending reached about 4 billion PLN per year, this dropped to about 2 billion in 2009 with both individuals and developers struggling to obtain loans. From 2010 there was at least some easing of bank credit policy with respect to individuals, which in the view of one observers constituted a " return to normality [that] was visible in all key phenomena: mortgage lending mechanisms and scale of supply and demand, which manifests itself through sales results and client behaviour .....in terms of mortgage lending , the return to normality manifested itself in the number of newly-granted loans compared to the number noted in 2008 and in reinstating the conditions for granting mortgage loans that were valid before the real estate boom "(PWC (2011) 29). In fact, total lending in 2011 and 2012 only rose to about 3 billion which is significantly below the 2007/2008 peak.

Fourthly, a major change has been the major shift in the use of foreign currency denominated loans. In 2007 and 2008, mortgages denominated in Swiss francs continued to take a major share of total lending. From the beginning of 2009, however, Swiss franc mortgages fell in number, and although there was some displacement with Euro-denominated loans, by mid 2012 non-zloty loans accounted for only about 15 per cent of the total new lending (NBP 2011).

## 4.2 Employment

### 4.2.1 Numbers

Table 4.2 Total Employment Financial Intermediation (SIC 65) Poland

	Total employment (000s)
2000	n/a
2001	n/a
2002	n/a
2003	n/a
2004	180.813
2005	200.512
2006	231.094
2007	270.896
2008	240.846
2009	254.045
2010	258.887

Source: EU LFS.

The number of people recorded as being employed in SIC 65 activities increased by 50 per cent over the three years 2004 to 2007. This was followed by a 10 per cent reduction in 2008, and a 5 per cent recovery by 2010 (Table 4.2). Two of the larger banks that have been active in mortgage lending report that approximately half of new lending was achieved through the activities of brokers whose numbers would be recorded under SIC 67.

A distinctive feature of employment in the retail activities of Polish banking system is its relatively high orientation toward the internet. In 2010 a quarter of the 29 million active consumers in Poland banked online (Intelace 2011). mBank, which is owned by one of the larger Polish banks (BRE Bank) was established in 2000 as a comprehensive online banking facility offering current accounts, credit cards, insurance, as well as mortgages. By 2011 it had 2.5 million clients (Intelace 2011).

### 4.2.2 Skills

Over the period from 2005 to 2010 at least, there was a general upgrading of skills as evidenced by educational attainment levels, with a marked shift in the share of those gaining upper secondary and further education to those with a university degree (Table 4.3).

Table 4.3 Educational Attainment Financial Intermediation Netherlands(%)

	2000	2005	2010
Low	n/a	1.0	0.4
Medium	n/a	47.8	32.5
High	n/a	51.2	67.1
Total	100	100	100

Source: EU LFS.

### 4.3 The future of the mortgage market

On some indicators the mid-term future in Poland would appear to support a return to an expanding mortgage market. In 2010 the Polish economy grew at 3.8 per cent, and over the next half decade is forecast as being one of the fastest growing economies in the EU (PWC 2011). Over 2008-2010, real estate markets in Eastern and Central Europe were difficult, but generally 2011 has seen in a upturn especially in residential markets, and particularly in Polish cities; indeed Warsaw was the best performer among the CEE capital cities in 2011 REAS(2012).

In fact, there have been some fundamental shifts away from an emphasis on expanding the mortgage market through the sale of new housing loans towards a concern with the stability of the banking sector, which point to a smaller, less aggressive market.

The government's position which has been central in re-shaping the market is informed by a number of considerations. In line with its objective of controlling public expenditure, it has amended its "First family home" programme. This was originally set up in order to assist those seeking to establish their first home, independently of parents, by providing a loan subsidy. Under amendments established in mid 2011, the qualifying requirements were changed making it more difficult in most cities to meet them. As early as the fourth quarter of 2011, there had been a 40 per cent reduction in take-up of the programme (NBP 2012).

This further reflects a position that housing need and housing shortage are not generally a priority in the short and medium term. Similar to many other of the eastern member states, the demographic trends point to an overall reduction in numbers, especially of younger, working age people (Sobotka 2008). Falling fertility rates and increased longevity contribute to an ageing population, which combines with a net outflow of working age people to higher income, western member states. Consequently, pressure on existing housing stock may not be great beyond perhaps Warsaw and one or two other economic growth centres. Moreover, with the home ownership rate already high in comparison with the EU average it is possible that overall demand for housing loans will not be buoyant.

The government has also moved to change the former reliance on foreign currency-denominated loans, seeing the large proportion of foreign currency-denominated loans in the loan portfolio of Polish banks as exposing them to credit risk by virtue of the sensitivity of households to any future depreciation of the zloty. Not only affecting the



ability of households to meet repayments, depreciation would also increase the loan to value ratio, adversely affecting the capacity of the collateral to cover the outstanding loans. The Bank of Poland has further concerns about the scale of foreign currency denominated mortgages in the potential impacts on the funding and liquidity risks for banks, as well as macroeconomic risks resulting from the distortion of transmission risks and the contribution to price bubbles. The Bank's conclusion is that "further reduction in the scale of foreign currency loan origination, and creating the possibility of taking out loans only by borrowers who receive regular income in the currency of the loan would be good for the stability of Poland's financial system" (NBP 2012: 44).

Government actions have had other significant impacts on the market. One of the consequences of closing off access to foreign currency-denominated capital to fund housing loans has been to reduce their profitability. In comparison with consumer loans, and loans to large, medium and small enterprises, from 2010 housing loans have been the least profitable (NBP 2012). This has forced banks to reconsider their lending priorities. Whereas the 2000s may have been characterised as an era of readily available, low interest capital, especially in Swiss francs, that encouraged banks to seek increase their housing loan business, the 2010s, into the medium future, appears very different: with poorly developed alternatives, such as covered bonds and securitisation, Polish banks are placed with the classic problem of having access to short term borrowing as basis for long term housing loans. In these circumstances housing loans are not being prioritised, but generally being considered subsidiary to other business.

Set against this, the government is considering the potential of reverse mortgage loans. Regulations, the first step in an Act, are being prepared to enable banks, working under appropriate and effective methods of supervision, to provide owners of houses and flats to access housing equity. A principle of this will probably be that ownership rights will be retained by the owner, with the owner's family having the option of paying off the loan and retains the property.

#### **4.4 *Employment 2025***

The future of mortgage markets in Poland is tied to its government's concerns about the reliance over the last decade on foreign currency-denominated loans, seeing this as imposing unacceptable risks on households, banks and the wider economy. Regulations that have shifted the bulk of new lending to the zyloti, have also had the effect of increasing the costs to banks of raising capital to fund housing loans. Against a background of falling population and little pressure on the housing stock, beyond Warsaw and some other larger centres, the general expectation for the mid-term future is of a level of new lending at about two-thirds of the 2007 peak. Overall, the general expectation from the authorities and the industry view appears to be that the mortgage market will stabilise, over the medium term at least, at a level below the 2007 peak. Mortgage lending may no longer drive the relationship between banks and households, and in turn support fewer workers than previously.

## **5. UK**

### **5.1 *The past development of the mortgage market***

### 5.1.1 Expansion up to 2007

Traditionally the mortgage market in the UK was based on building societies, which are not for profit, mutual or cooperative bodies, owned by their shareholders. While in 1910 there were 1723 separate societies, their numbers dropped rapidly, largely through mergers and acquisitions to 273 in 1980 (BSA 2011). Over the last 30 years there have been considerable changes to the market leading to both further reductions in the number of building societies and to the entry into the market of banks and other financial institutions. The catalyst was the change to the British banking laws which, initially, enabled societies to offer banking services, with further changes in the mid 1980s allowing them to demutualise and becoming limited companies. Throughout even those that remained as mutual organisations, there was a move to set mortgage interest rates with reference to market clearing rates. In acting like profit-maximising banks, this move in turn enabled banks to compete in the mortgage market.

Table 5.1 Gross advances by sector (%)

	Building societies	Banks	Other specialist lenders	Other	Total £000m
1995	59	37	4	1	57
2000	21	70	9	1	120
2001	16	75	8	1	160
2002	16	74	10	1	221
2003	17	70	13	0	277
2004	16	70	14	0	291
2005	15	70	15	0	288
2006	15	68	17	0	345
2007	14	68	17	0	363
2008	15	76	8	1	254
2009	13	83	4	1	143
2010	15	79	5	1	136

Source: BSA (2011).

With the last major tranche of de-mutualisations taking place at the end of 1997, the numbers of separate societies has continued to fall, there being 49 in 2010 (BSA 2011). For their part, banks and other financial institutions have taken a larger share of the total market (see table 5.1).

These changes in market shares took place in the context of other significant market developments. Central here was the expansion of total activity. From the end of the 1990s both new lending and the value of total outstanding mortgages, in absolute terms and as a percentage of GDP increased rapidly; in each year of the second half of the 2000s, the stock of mortgages outstanding exceeded 80 per cent of GDP (table 5.2).

Table 5.2 UK mortgage market

	Residential Mortgage	Gross new mortgage	Outstanding Residential	Total Covered bonds outstanding (backed	Retail Mortgage Backed Securities
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	Debt as % GDP	lending €m	loans €000m	by mortgage) €m	€m
1999	55.1	173,800	777,452	n/a	n/a
2000	55.8	196,384	894,105	n/a	22,650
2001	58.0	258,263	952,408	n/a	25,470
2002	62.1	350,376	1,061,408	n/a	35,270
2003	67.4	401,945	1,110,477	5,000	55,460
2004	71.2	425,951	1,262,443	14,959	79,773
2005	77.5	421,253	1,422,172	26,778	103,311
2006	82.2	504,654	1,602,576	50,548	202,823
2007	85.0	530,084	1,745,907	81,964	n/a
2008	80.4	319,911	1,459,856	204,278	n/a
2009	87.7	160,814	1,372,861	201,096	70,534
2010	85.0	158,456	1,422,685	205,370	87,959

Source: EMF (2011).

One of the factors driving this expansion was access to wholesale funding. By the end of the 1990s the larger lenders were active in launching mortgage backed securities, and in 2003 covered bonds were introduced in the UK (table 5.2). The result was that by 2007 over 20 per cent of mortgage debt was met by wholesale funds. Being non-deposit institutions, this particularly advantaged the specialist lenders.

The availability of funds was part of a number of trends that together contributed to a booming housing market. Eager to compete for market share, many lenders introduced attractive mortgage products as well as relaxing requirements regarding maximum loan to value ratios and the scrutiny of the income position of applicants. From the end of the 1990s, the economy was expanding, for many wages were increasing and interest rates were low. With this constellation of circumstances, the house price to earnings ratio increased steadily across the decade from 1997 to 2007 (Bank of England 2009).

### 5.1.2 *The financial crisis*

The 2007 credit crunch quickly resulted in the seizing up of wholesale funding markets in the UK, and though there was support through public intervention, there was a drop in the availability of retail funds. The immediate effect was a reduction in the overall amount of money that institutions had available to lend. In those circumstances, institutions began to prioritise the safest customers and they reduced loan to value ratios which made it necessary for buyers to offer larger deposits. They also lent considerably less, so that total gross advances which by 2010 were only about 40 per cent of the peak that had been reached in 2007 (table 5.1). Similarly, the specialist sub-market in equity release or reverse mortgage products declined after 2007 (SHIP 2011). There were also consequences for market share. The Bank of England interventions to support the RMBS market, while helping to bring greater stability to the mortgage market, effectively privileged some of the larger institutions. Most mortgage lending is now through the five major UK banks (Wilcox and Williams 2009).

## 5.2 *Employment*

### 5.2.1 Numbers

The total numbers employed in SIC codes 65, 66 and 67 in the middle of the 2000s was a little over 1.1 million, of which most were employees (94 per cent) and most full time (83 rising to 85 per cent) (table 5.3).

Table 5.3 Employment in Financial Services

	2004	2007
Employment	1,162,000	1,107,000
Share of national employment	3.9%	3.5%
Self employment	6%	6%
Part time share	17%	15%

Source: Wilson R et al (2006; 2008).

Looking solely at SIC65, to which most of those involved in mortgage provision and servicing are allocated, the overall numbers show large changes. From 2000 to 2007 they increased in all years, with the exception of 2006, to just over three quarters of a million people. Subsequently, each year to 2010, they fell, to about three quarters of the level reached at the 2007 peak (table 5.4).

Table 5.4 Total Employment Financial Intermediation (SIC 65) UK

	Total employment (000s)
2000	643.225
2001	656.069
2002	679.138
2003	687.893
2004	718.429
2005	754.100
2006	750.249
2007	767.008
2008	744.896
2009	595.306
2010	558.738

Source: EU Labour Force Survey.

Statistical information about mortgage-related employment is available in a study carried out for the Financial Services Authority (Atkin et al 2011) which provided estimates of the number of Retail Investment Advisers (RIA) who provide independent advice about financial products. In the UK in 2011 there were an estimated 40,566 RIA . This was down 8 per cent on 2010. However, the same survey found that advice about mortgage products formed only a small part, roughly 3 per cent, of the total activity of RIA From this the number of mortgage supported advisers, expressed as full time equivalents, can be estimated at approximately 1,200.

Employment data are also provided by the Building Societies Association, the trade body of the mutual lenders (table 5.5). These totals include people working in 46 estate agency branch offices owned by building societies although since in 2011 they had over 1600 branch offices this would constitute a relatively small proportion of the total. Building societies also frequently sell financial products other than mortgages, although some, such as building insurance, are mortgage-related. Set against this would be any functions such as call centres that had been outsourced overseas, or any of independent agents that generated new mortgage business.

Table 5.5 Employment in Building Societies

	Full time employment	Part-time employment
1997	30,632	8,953
1998	33,155	9,996
1999	32,722	10,379
2000	32,334	10,823
2001 <sup>1</sup>	28,200	9,150
2002	28,982	9,257
2003	32,502	11,440
2004	34,335	11,571
2005	35,615	12,203
2006	37,112	12,893
2007	38,652	12,926
2008	35,331	12,043
2009*	33,521	11,960
2010	31,711	11,878

1.Excludes Bradford & Bingley

\* Interpolated from 2008 and 2010 figures

Source: BSA (2011).

Broadly, levels of employment have increased as the market expanded from the late 1990s and decreased when the market contracted after 2007. It is possible that the relationship is less smooth in the latter phase partly as a result of estimating the levels for 2009, but, more significantly, the stickiness of closures and redundancies as institutions have sought to respond to the very uncertain business environment. Total employment appears to be related to two main sector outputs. Firstly, the amount of new business as measured by the value of gross advances, since this requires labour to raise funds - whether in the form of retail deposits or wholesale lending - to market products, make sales, administer applications and so on. Secondly, the value of the outstanding stock of loans, since these require repayment collection, arrears procedures and so on.

All expressed in log form, total employment can be defined as:

$$\text{LEMPFTE} = \alpha_0 + \alpha_1 \text{LOUTSTMORT} + \alpha_2 \text{LGROSSADV}$$

LEMPTE is the natural log of employment in a year expressed as full time equivalents by multiplying part time numbers by 0.5 and adding to the full time number.

LOUTSTMORT is the value of outstanding mortgages measured in £millions

LGROSSADV is the value of new advances in a year measured in £millions

*Table 5.6 Regression analysis*

	Coefficients	t-values
Constant	7.436	
LOUTSTMORT	0.198	2.946
LGROSSADV	0.074	1,441

The results, given in table 5.6, confirm the importance of the two independent variables in accounting for employment in the building society sector, with the model explaining 60 per cent ( $R^2 = 0.597$ ) of the variation. The coefficient on LOUTSTMORT is positive and significant at the 1% level, and indicates that a 10 per cent increase in the stock of outstanding mortgages is supported by an increase of 2 per cent in the amount of employment. The coefficient on LGROSSADV also has the expected positive sign. While it is not significant at the 10 % level, it is nearly so, an outcome that may be attributable to some stickiness in the response of societies to changes in the level of new business. In addition, this may reflect the widespread use of brokers and other agents to bring in new business. Insofar as they were used extensively by some, but not all, societies during the first half of the 2000s when the market expanded rapidly, they, rather than internal staff, may have taken the brunt of the effect of the reduction in new business. Consistent with this the impact of new business on employment levels is smaller than the impact of the stock of outstanding mortgages, with a 10 per cent increase being supported by about three quarters of one percent increase in employment.

### 5.2.2 Skills and gender

For the same reasons that restrict systematic information about the numbers of people employed in the housing finance industries, systematic information about income, education and skill levels is also restricted. Here, too, the starting point is the financial sector as a whole.

According to one review of the financial sector in Scotland in the mid 2000s, workers – employee and self-employed together – have higher average earnings than those in all other sectors (Munro and Karley 2005). This is reinforced by the high average educational attainment with almost 50 per cent more of them having a university degree or higher educational qualification compared to all sectors together. A study of the financial sector in the UK as a whole indicates that it is broadly consistent with the Scottish experience indicating a sector in which workers have a high average level of education and training (Wilson et al 2008). Moreover, it shows that over time there has been a general increase in the levels, the largest decrease being in the proportion of people working in administrative, clerical and secretarial occupations. Further, forecasts for 2017 made as part of the study indicated a continuation of this trend.

Finally, with respect to SIC65, the trend shows an increasing proportion of workers with higher level educational qualifications (table 5.7).

Table 5.7 Educational Attainment Financial Intermediation UK(%)

	2000	2005	2010
Low	18.7	14.8	11.3
Medium	51.2	51.5	44.5
High	30.1	33.7	44.2
Total	100	100	100

Source: EU Labour Force Survey.

According to a survey commissioned by the Equality and Human Rights Commission the gender mix in the finance sector over the period 2003 to 2008 was roughly equal, but with women being especially dominant in administrative, clerical and secretarial, and in sales and customer services occupations (Metcalf and Rolfe 2009).

### 5.3 The future of the mortgage market

#### 5.3.1 The crisis

Whereas the impacts of the credit crisis included a shortage of liquid funds and changing structure of supply, they have also affected consumer demand. Rising unemployment, increasing uncertainty and lack of confidence with an expectation of further house price falls, set against the UK government's austerity programme, may all contribute to a greater reluctance to either enter home ownership or to move up the home ownership ladder (Bank of England 2009).

#### 5.3.2 Regulation

Concerns about the extent and nature of the crisis also set in train an overhaul of the regulatory system as well as the regulations themselves. Legislation before the UK parliament in 2012 is set to transform the regulatory architecture. It is anticipated that by late 2013 the main points of that transformation will be set in place.

The proposals start from the basis that the purpose of a mortgage is to assist a consumer to become a homeowner at the end of the mortgage term, rather than providing a cheap source of finance to minimise housing costs or facilitate consumption. The objective is to ensure a higher quality of mortgages that are affordable by the customers to whom they are sold. Specific proposals cover the requirement that lenders will verify income, rather than allow, as they did, self certification of income. In deciding the level of the loans lenders should take account of other expenditure commitments of the borrower and the impact of likely future interest rate rises. Further, borrowers will have to be more prudent to lending beyond the state pension age, while interest only loans will be granted only in the circumstances of a credible capital repayment strategy, other than relying on future house price inflation. Prudential requirements include improvements to the quality of capital and stronger systems to manage liquidity risks. Many of the same broad principles will apply to equity release mortgages.

### 5.3.3 *Housing equity and older people*

Concerns about the government's existing commitments to funding pension and long-term health and social care for the growing cohort of older people has taken a significant position in UK political agenda. There have been wide-ranging policy debates about drawing on the equity tied up in the homes of older people, especially with a view that the use of financial products had the potential to allow older people to live comfortably in their own homes, sometimes purchasing care services, with the cost of the products being met from the eventual sale of the house after the death of the owner (Lord German 2012).

### 5.3.4 *Productivity and automation*

A recent review of the use of technology in the UK mortgage market, has found that lenders, faced with falling volumes, are continuing to try to reduce costs by developing better automated systems (Eve 2011). It is anticipated that this transformation combined with the new regulatory model will have a major impact on the future development of IT systems. In turn these will influence the business models developed, for example involving the role of intermediaries vis-a-vis in-house staff.

## 5.4 *Employment 2025*

The FSA proposals can be expected to have an impact on employment in mortgage providers, for example requiring recruitment of front line advisers, along with appropriate new systems, to ensure compliance with the new arrangements. In other words, for any specific level of mortgage business there will be an increase in employment, relative to recent levels dealing with the same business. The extent to which this would increase costs which, passed onto customers, would reduce demand and therefore lead to an overall reduction of labour is unknown.

In any case, set against this are the possibilities of future productivity gains which may arise from, for example, future merger and acquisitions or the extension of new technologies such as internet marketing and selling. In the absence of firm information about the regulatory regime and the financial sector model that develops out of the present crisis, it is not possible to determine the balance between the impacts on employment of productivity and regulation.

The different types of provider in the UK mortgage market have different business models. In comparison with building societies, the banks generally run their mortgage activities as part of comprehensive retail banking services and products, while the specialist lenders source most of their funds from the wholesale markets and may not provide a wide range of non-mortgage products. In addition, different institutions outsource different aspects of their business – for example customer call centres, and brokers – and to different extents. Consequently, using the regression coefficients estimated from building societies alone and applying them to the stock of outstanding mortgages and gross advances of the industry as whole cannot be expected to provide accurate estimates of total industry employment.

Nevertheless, they are the only empirically-derived basis for relating industry activity to employment levels that is available. The coefficients presented in table 5.6 are, then,



used to estimate employment levels, thus assuming a constant, building society type business model across the entire market. Accordingly they are used to provide an approximation of the scale of employment of a range of possible market scenarios, defined in terms of outstanding mortgage stock and gross advances. The scenarios are:

- 1) The 2007 market. This uses the known amounts of outstanding mortgage debt and gross advances at the previous market peak.
- 2) The 2010 market. This uses the amounts of outstanding mortgage debt and gross advance for the latest year for which they are known.
- 3) No market growth. The amount of new lending in 2025 remains at the 2010 level. As borrowers complete the full term of their loans the portfolio of outstanding mortgage debt will decline by 40 per cent of their 2010 level. Over the period productivity improvements will reduce the labour force by 20 per cent (3a) or any productivity improvements will be offset by increases in employment required to meet new regulatory regimes (3b)
- 4) Medium market growth Lending will remain at its 2010 level until 2015, after which it will switch to the level reached in 2007. The portfolio of outstanding mortgage debt in 2025 will be the same as in 2010. Over the period productivity improvements will reduce the labour force by 20 per cent (4a) or any productivity improvements will be offset by increases in employment required to meet new regulatory regimes (4b)
- 5) High market growth. In 2013 lending will return to its 2007 levels, and thereafter increase annually with both outstanding mortgage debt and gross advances increasing by 75 per cent by 2025. Over the period productivity improvements will reduce the labour force by 20 per cent (5a) or any productivity improvements will be offset by increases in employment required to meet new regulatory regimes (5b)

The resulting employment estimates, presented in table 5.8, are expressed as a percentage of the mortgage market total in 2007, the year of peak market activity until now, and therefore almost certainly the year of peak employment until now. The projections indicate that under all three future scenarios, with productivity increases, (3a,4a,5a) employment totals are unlikely to exceed the 2010 level, which is itself lower than the 2007 peak. In the case of the no market (3a) and medium market growth (4a) scenarios this can be attributed to reductions in activity, either outstanding mortgages and/or new mortgages, while for all three future scenarios it is a function of projected increases in productivity. The latter assumes that continued merger and acquisitions activity with its associated branch closures, as well as increasing use of electronic means of sales and administration, will be part of the future of the industry and that their combined effect will be to offset the positive employment effects of even quite large increases in the size of the UK mortgage market.

*Table 5.8 Projections of market employment*

Scenario	Total market employment relative to scenario 1 (%) (a) With productivity increases	Total market employment relative to scenario 1 (%) (b) Productivity increases offset by regulation

		increases
1. 2007	100	-
2. 2010	93	-
3. No market growth	67	84
4. Medium market growth	80	100
5. High market growth	90	113

The projections that assume that new regulations will impose additional labour inputs, effectively wiping out productivity increases (3b,4b,5b), provide a somewhat different picture. Here, in a high growth scenario there could even be a significant increase in the labour requirements of the mortgage industry.

However these projections are based on an assumption that the new regulatory regimes will simply impose additional labour inputs, but it is possible that the additional inputs will, by increasing costs that are passed to customers, depress demand for mortgages. In an outcome where mortgage activity is lower than it might otherwise have been, overall employment could actually fall: effectively, scenario 4b is close to 3b, and 5b to 4b.

In summary, then, under most scenarios modelled here it may be expected that employment levels will be below 2007 levels.

## 6. The Future of Mortgage Market Employment

### 6.1 Past developments

There can be no doubting the size and importance of the European residential mortgage industry with the total outstanding stock of mortgage debt in 2007 amounting to about half of the combined GDP of the EU27. Following the onset of the global financial crisis, mortgage markets in general experienced substantial reductions in the overall amount of new lending, the 2010 amount being less than 60 per cent of the 2007 amount. These reductions were uneven across the member states, being, broadly, greatest in those countries in which the macroeconomic position, as measured by its growth in GDP, has been worst.

Just as the scale of the financial activity of the European mortgage industry is clearly large, so is its contribution to European labour markets. What is not clear, however, is just how large it is: in short exactly how many jobs, of what type are supported by the industry? The lack of clarity arises partly because of the degree of integration of mortgage activity with other activities of financial institutions, including the cross selling of financial products. For many financial institutions it is not clear how many jobs are supported by managing and providing mortgages when this is done alongside, and is part of, managing and providing insurance products, deposit accounts and so on. Related to this, statistical data about employment levels harmonised across the member states do not separately identify mortgage from non mortgage employment.

There are, however, significant positive correlations between mortgage activity and total numbers employed in financial services. This may point to a symbiotic

relationship between housing finance markets and wider capital markets. It also provides a basis for understanding labour demand in mortgage markets. Thus it seems reasonable to conclude that the jobs in firms providing, marketing and servicing mortgage products are, as the financial sectors as a whole, likely to be skewed toward higher educational, skill and pay levels. In that sense many of these are high status jobs, requiring and rewarding high levels of human capital, and making particularly valuable contributions to national labour markets.

It is also possible to identify some quantitative trends, particularly a general reduction in mortgage-based employment since 2007. In the case of the UK, employment in building societies dropped by 10-15 per cent between 2007 and 2010, this being related to both the amount of outstanding loans they serviced and the amount of new lending. On this very specific basis it seems likely that employment would have fallen in all member states where mortgage activity has fallen. In contrast, evidence provided by the European Federation of Building Societies, is that despite the amount of their mortgage activity being broadly maintained over the 2007-2010 period, the private *bausparkassen* in Germany reduced their employment by about 17 per cent. This is reported as being largely a consequence of outsourcing so that this does not constitute a net loss of mortgage-related employment, but it does indicate that especially in a period of economic uncertainty firms will look to find ways to reduce costs.

## **6.2 *The drivers of future mortgage market employment***

The question addressed by this paper concerns how employment in European mortgage markets will develop by 2025.

On the face of it there is considerable capacity for further growth of mortgage activity and with it employment. Even if it is assumed that the amount of mortgage debt relative to GDP held in Denmark and the Netherlands in 2007 – in both cases, about 100 per cent – constitutes an upper limit on the size of national mortgage markets, there is capacity for large growth. As of 2010, across the EU as a whole, outstanding mortgage debt was equivalent to only about 50 per cent of total GDP. Overall, then, the EU market could just about double in size with particularly high growth potential in the newer member states, in some of which the market could grow by a factor of 4 or more.

However, the absence of quantitative estimates of employment across mortgage markets as a whole, for any, yet alone all, of the member states, mean that there is no benchmark against which such an outcome could be translated into employment estimates. Likewise, the absence excludes the possibility that any other quantitative forecasts and projections can be derived, the only exception being the specific case of UK building societies from which, under most scenarios modelled here, it may be expected that employment levels will be below 2007 levels (section 5.4).

In the absence of the possibility of deriving quantitative estimates, the study has sought to identify drivers of mortgage market employment futures, some of which relate directly to NEUJOBS agenda.

### 6.2.1 *The historical legacy*

The first of these drivers is based in the country-specific nature of mortgage markets and recent, post 2007, developments. In Ireland and Spain, for example, much of the pre-2007 lending had been to developers building speculatively against the expectations that prices would continue to rise, with the subsequent crash resulting in their banks holding large amounts of bad debt. In contrast, in Hungary, the bias toward Swiss franc and euro-denominated loans to households, followed by rising unemployment and a large fall in the value of the forint, has resulted in large-scale defaults.

The three case studies indicate that different national pasts will undoubtedly have a major influence on shaping national futures. In Poland the successful attempts to move from reliance on low-interest, foreign currency-denominated loans has resulted in more expensive products which, all other things being equal, depress demand and, with that, mortgage market growth. In the Netherlands, the reliance on capital markets to fund the mortgage market restricts the ability of the authorities to undertake radical reforms since these could deflate house prices with the consequences of both sending signals to capital markets that the Dutch mortgage market is high risk and facing negative responses from homeowning electors.

On this view, then, there is not a uniform future for mortgage markets across the member states, or even necessarily a uniform return back to their different 2007 levels of activity and employment. There is no general formula that can be applied: for each member state it is necessary to look to its particular historical, political and economic circumstances.

### 6.2.2 *Macroeconomic recovery*

Notwithstanding the past growth of mortgage markets and the potential for future growth, the actual future, at least for the short term even up to 2025, is constrained by the current financial crisis. This has had impacts on all aspects of mortgage markets, including, as figure 2.2 suggests, levels of new mortgage lending. The continued low and negative GDP growth in much of the EU and beyond, the perilous position of the economies of some of the member states, the political and economic viability of austerity packages and the stability of the euro zone all add up to uncertainty about where national economies are heading; and hand-in-hand with uncertainty about economies as a whole is uncertainty about where financial markets, housing markets and mortgage markets are heading.

A key to the actual future, then, concerns how quickly and in what ways the financial crisis is resolved. It seems unlikely that this will happen quickly, with a return to what might be called “normal” market conditions and market growth perhaps delayed until the end of the present decade. Even if the duration of the crisis is a little shorter than this, it will still have had an enduring impact on mortgage markets: for example, the longer that new lending is depressed the more is likely to be the depression of the stock of outstanding loans, and, in turn, with both the need for workers will be depressed.

### 6.2.3 *New regulatory frameworks*

But this also raises the issue of what is meant by “normal” and whether mortgage markets – and more generally financial markets – will return to anything like their former characteristics. One element of this lies in the development of new architectures of regulation.

Writing in 2010 one observer remarked that “the world is now knee-deep in proposals to reform finance” (The Economist 2010). Two years or so on, with national governments, the EU and international organisations all active, this aspect of the world has not much changed. The case studies show that in Poland, the Netherlands and the UK the national regulatory frameworks have already moved significantly. Though each differing in detail, broadly, they are consistent with principles set down by the Financial Stability Board (FSB). Established in 2009 with membership consisting of the G20 countries, the European Commission, IMF, OECD and the Bank for International Settlements, FSB has recommended minimum underwriting standards intended to limit the risks posed by mortgage markets to wider financial stability and to provide improved safeguards for borrowers and investors. FSB (2012) sets out principles covering five areas; these are not themselves detailed international standards, but are intended as a basis for actions by national regulatory bodies.

1. Effective verification of income and other financial information
2. Reasonable debt service coverage
3. Appropriate loan to value ratios
4. Effective collateral management
5. Prudent use of mortgage insurance

Although much is yet to be agreed and put into place, it is difficult to conclude other than that the future will be of financial institutions with greater capital and liquidity requirements, and less exposure to risk. Broadly, the emphasis of mortgage markets is being switched from growth in new lending toward stability and safety. This is seen clearly in the three case study countries.

In so far as those involved in providing mortgages are concerned, this will also mean more information, more verification, and more monitoring, all with greater responsibility placed on lenders for assuring the accuracy of the evaluations. This also suggests that more labour input will be required per unit of mortgage activity. It also seems likely that lending institutions will develop new models which for some might include, for example, less use and for others more use of outsourcing through intermediaries. In turn, this might lead to different configurations of skills. But while, the overall increase in labour input will increase total employment for a given level of lending activity, it will also increase costs which, passed onto customers, could possibly lead to an overall reduction in demand. So, on balance new regulation seems likely to increase costs but will not necessarily increase the numbers employed in mortgage industries.

It may be expected that such effects will be greater in those countries where regulation has previously been loosest, for example the liberal UK market as opposed to the more regulated German one. To that extent, a general effect of new regulatory regimes could be to reinforce existing national differences.

#### 6.2.4 *Welfare state restructuring and the demand for housing finance*

A large proportion of the personal wealth of European households is held in the form of housing equity, net of mortgage debt. Calculations based on data from the early 2000s, indicate that the total amount of housing equity equates to about 160 per cent of GDP (Doling and Elsinga 2012). Insofar as housing equity constitutes untapped collateral and unrealised wealth, it indicates that the household sector could be making greater use of financial products related to housing.

This potential can be set in the context of aspects of the socio ecological transition with which NEUJOBS is concerned: welfare state transformations partly in response to key societal and demographic changes (WP5: Work life balance and welfare transformation in the context of SET); fiscal challenges affecting all member states especially as a consequence of the current crisis and the search for new solutions (WP7: Public/private mix in service provision, fiscal policy and employment); and the impact of ageing populations on health and social care sectors and financial sustainability of public finances (WP12: Health care, goods and services for an ageing population). All of these present governments with challenges about meeting the costs of established models and entitlements, and for all, one potential approach is to encourage households to draw on their own resources, embedded in mass home ownership. In this way, part of tax-based, state expenditures may be replaced by models in which European households take greater responsibility for the costs of meeting their needs in later life.

In some of the more economically-advanced East Asian countries – Singapore, South Korea and Hong Kong – that also face problems of funding the needs of older people, governments have developed forms of reverse mortgages. At the present time, however, the reverse mortgage market is very small in all EU member states (except perhaps the UK), and in some does not exist at all. There are a number of barriers that would need to be overcome before reverse mortgages provided a significant boost to the level of mortgage activity (Doling 2012). Nevertheless, it is possible that at least some member state governments – as evidenced from the case studies of Poland and the UK in particular – will facilitate such developments.

In doing so, there is the potential to extend, what in most European countries has been an emphasis on forward mortgages that enable households to invest, to an associated emphasis on reverse mortgages that allow households to dis-invest. The theoretical potential for the expansion of mortgage business, and therefore of employment, is considerable.

#### 6.2.5 *Energy renovation of housing stocks*

NEUJOBS is also concerned with aspects of European energy efficiency goals which cover a range of targets including greenhouse gas emissions, renewable energy, and energy consumption (WP11: Energy and green jobs; and WP14.2: Job creation through energy renovation of the housing stock). The housing sector is especially important to this, since it is responsible for some 40 per cent of overall energy usage and 36 per cent of CO<sub>2</sub> emissions (Meijer et al 2012). The major challenge, however, is not new building since across the member states this typically adds no more than 1 per cent to the existing stock. One consequence of this is that perhaps as much as 75 per cent of the

housing stock that will be in use in 2050 has already been built, and built at a time when energy conservation was not an important objective. Further, whereas there are existing programmes of improvement and renovation to bring existing dwellings up to acceptable standards, the numbers of dwellings involved each year is small. Meeting the goals, then, will require a major step up in these programmes, even by 2025, to perhaps 3 times the existing rates.

Increases in the rate of energy renovation, however, will hit up against a number of identified constraints. Central to these are the financial barriers that stem from a combination, on the one hand, of the high level of initial costs and the relatively long period over which investments and, on the other, the absence of awareness among financiers and limited access to credit (Meijer et al 2012). Here, Germany provides a relevant illustration with the federal government incorporating in its energy policy subsidies operated through the federal development bank (Kreditanstalt für Wiederaufbau) which provides low interest loans indirectly via other banks. The more general point is that success in expanding existing programmes in order to meet both EU and member state policies will require, inter alia, increased levels of investment and, insofar as this investment will depend on the financial capacity of private owners, access to appropriate forms of loan finance. In this scenario, the opportunity for financial institutions in all member states will be to expand the practice of lending to private owners, against the collateral of their homes, in this case to invest in energy reduction measures; and in that this is additional business rather than a diversion from lending to purchase (or indeed lending to extract equity) it will mean an expansion of overall lending activity.

### 6.2.6 *Labour, technology and productivity*

Writing at the outset of the millennium Richard Beidl remarked that “housing finance is one of the last areas of consumer credit to be affected by the internet and indeed by electronic commerce in general” (2000: 7). The subsequent dozen years have seen a rapid expansion of these ways of doing business. Oliver Wyman (2007) forecast that by 2010 10 per cent of all mortgage advances across the EU would be via the internet, rising to 20 per cent by 2020. The increasing use of the internet and IT has affected the number of employees used to process a unit of mortgage activity, as well as their skills and their relationship to mortgage-providing institutions. Such developments are relevant to the concerns of workpackages 3, 4 and 9.

With continuing restrictions on the amount of lending, lenders in many countries are trying further to reduce costs, and in this the acquisition and development of better automated systems has considerable potential (Eve 2011). For example, the mortgage origination process, which involves generating consumer interest, application and sales at one end and credit evaluation, document checking and application acceptance at the other, may be especially suited to internet communication. Mortgages have a limited number of dimensions – interest rate, down payment requirements, arrangement fee – that enable the search process to be fairly easily standardised. Furthermore, because most people take a mortgage only infrequently they will often not have a preferred mortgage supplier with whom they have an on-going relationship.

In some countries much of the initial sales process, which involves identifying potential customers, counselling them about options, and assisting them to complete applications, is carried out by brokers. By reaching customers more efficiently, the internet offers the opportunity for disintermediation. In part, this may be driven by the increasing sophistication of consumers and an increasing ability and experience of using the internet to conduct financial transactions and therefore their need to have help in completing complex forms.

Once the application has been received, the procedure is likely to involve further documentation in order to verify information provided. The use of digital document imaging increasingly allows documents to be directly uploaded into the lender's case files. Linking the processes of loan origination and application approval is also a merger of B2C (e-commerce) and B2B (e-business). One of the advantages of electronic systems is that they transform a paper-saturated process through the ability to share data and documents without re-keying and without physical transfer, thereby achieving cost and operational efficiencies. This also enables simultaneous action being taken by different people in different locations, which offers the potential of outsourcing of some functions.

The extent of such developments is clearly variable across the member states, but with continuing restrictions on the amount of lending, many lenders are trying further to reduce costs. Such a tendency for substituting labour with machines clearly has implications for the modelling of labour demand (WP9). The increasing use of the internet and IT reduces the number of employees used to process a unit of mortgage activity, and in so far as such systems continue to be developed they may continue to depress workforce across all European mortgage markets.

In these respects, the developments have implications for both the organization of production and the employment structure (WP3) and training for new skills (WP4). More generally, ICT developments could lead to changes in the patterns of skills required in the industry, and perhaps to a reduction in skills, by replacing discretion previously vested with front-line staff with more automated and centralised monitoring and decision systems. This could lead in turn to further job and remuneration polarisation within the industry, with an increasing divide between highly skilled and highly remunerated central office staff and lesser skilled, more modestly remunerated staff interacting with the public.

### **6.3 Employment 2025**

In the absence of accurate and meaningful statistical information about the past and present, precise forecasts of the future of employment in mortgage markets in the EU member states are not possible. Nevertheless a number of statements can be made about possible outcomes by 2025.

The relationships found between changes in new mortgage lending and change in GDP for the period 2007-2010 (figure 2.2) and between employment levels in 2010 in financial sectors as a whole and total outstanding mortgage loans (figures 2.3 and 2.4) could indicate that employment levels in mortgage markets are likely to respond to changes in national GDP and to growth in financial sectors generally. Assuming that member state economies will recover over the next few years and in general begin to



make up for the stagnant or even shrinking years since 2007, it seems likely that mortgage markets and their employment will also recover.

The extent to which employment recovers to, or even above, 2007 will depend not only on the recovery of each member state's economy – and with that higher consumer demand, higher levels of confidence, and higher lending capacity by financial institutions – but also on the levels of outstanding loans and new lending, both of which influence the number of workers required. This will in turn be influenced by the nature of the recovery and the shape of financial sectors.

In these circumstances, a reasonable rule-of-thumb estimate could be that in 2025 activity in the mortgage market in each member state will be of a similar level to its 2007 activity adjusted by the changes in the 2007-2010 period. Broadly activity, and therefore employment, could be at the same level or lower, than in 2007, in the Anglo-Saxon and Mediterranean countries (also perhaps including the Netherlands), perhaps higher in the Scandinavian and Northern mainland countries, with a mixed picture among the Eastern countries.

Such outcomes will depend also on the developments in other drivers. One of the likely outcomes of new regulatory arrangements will be a significant increase, for many countries, in the assessment of mortgage applications which, at least in the short run, seems likely to increase the labour input. In so far as this would increase the cost of mortgages it might be expected to reduce the amount of new mortgage business. In the longer run, there can be expected, anyway, to be further developments in the use of the internet and automated systems which would substitute for labour input. Such productivity gains might also include changes in the amount of outsourcing of aspects of the mortgage operation.

Other drivers include possible increases in the range of loans secured against housing equity and developed in order to meet new and expanding opportunities to extract equity in order to supplement income in old age, perhaps substituting for state expenditures, and to make further investment in improving the energy characteristics of the dwelling.

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# ABOUT NEUJOBS

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## “Creating and adapting jobs in Europe in the context of a socio-ecological transition”

NEUJOBS is a research project financed by the European Commission under the 7th Framework Programme. Its objective is to analyse likely future developments in the European labour market(s), in view of four major transitions that will impact employment - particularly certain sectors of the labour force and the economy - and European societies in general. What are these transitions? The first is the **socio-ecological transition**: a comprehensive change in the patterns of social organisation and culture, production and consumption that will drive humanity beyond the current industrial model towards a more sustainable future. The second is the **societal transition**, produced by a combination of population ageing, low fertility rates, changing family structures, urbanisation and growing female employment. The third transition concerns **new territorial dynamics** and the balance between agglomeration and dispersion forces. The fourth is a **skills (upgrading)** transition and its likely consequences for employment and (in)equality.

### Research Areas

NEUJOBS consists of 23 work packages organised in six groups:

- **Group 1** provides a conceptualisation of the **socio-ecological transition** that constitutes the basis for the other work-packages.
- **Group 2** considers in detail the main drivers for change and the resulting relevant policies. Regarding the drivers we analyse the discourse on **job quality**, **educational** needs, changes in the organisation of production and in the employment structure. Regarding relevant policies, research in this group assesses the impact of changes in **family composition**, the effect of **labour relations** and the issue of financing transition in an era of budget constraints. The regional dimension is taken into account, also in relation to **migration** flows.
- **Group 3** models economic and employment development on the basis of the inputs provided in the previous work packages.
- **Group 4** examines possible employment trends in key sectors of the economy in the light of the transition processes: energy, health care and goods/services for the **ageing** population, **care services**, housing and transport.
- **Group 5** focuses on impact groups, namely those vital for employment growth in the EU: **women**, the **elderly**, immigrants and **Roma**.
- **Group 6** is composed of transversal work packages: implications NEUJOBS findings for EU policy-making, dissemination, management and coordination.

For more information, visit: [www.neujobs.eu](http://www.neujobs.eu)

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