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Housing bubble burst or credit crunch effect? Slovenia's housing market

As defined by the *Investment Dictionary*, housing bubbles usually start with an increase in demand in the face of limited supply, which takes a relatively long period of time to replenish and increase. At some point, however, demand decreases or stagnates at the same time supply increases, resulting in a sharp drop in prices known as a bubble burst. During the last two decades, the Slovenian housing market has been characterised by a very high housing demand under circumstances of a limited supply, which may primarily be attributed to the effects of the housing reforms introduced in the early 1990s. As is always the case in such situations, speculators seeking huge quick profits drove house prices to unsustainable levels relative to average incomes. Like in many countries throughout the world, the situation has recently changed. Statistical records show a slight decline in the growth of house prices and there are signs of stagnation in housing demand. These developments have prompted various (contrasting) viewpoints among housing experts. Some are convinced that the bubble has finally burst because house prices had reached the highest possible levels that buyers were willing to pay. On the other hand, others argue that house prices would have continued to grow had the credit crunch not occurred, which resulted in the reduced availability of mortgages and therefore depressed demand. These two viewpoints represent the main hypotheses of this discussion. This paper reviews the housing market circumstances over the last two decades and identifies facts that may substantiate or disprove these hypotheses.

Keywords: global financial crisis, housing bubble, credit crunch, housing finance, housing supply and demand, housing market

1 Introduction

The financial crisis began in the US in 2007 and soon spread globally through national and international banking relations. The first crucial reaction to the crisis was a loss of trust among banks. Banks became reluctant to lend to borrowers and, more importantly, to themselves. This led to the situation widely referred to as the "credit crunch" (Parkinson et al., 2009; Stiglitz, 2009; Kitchin et al., 2010; Priemus, 2010, Yao et al., 2010). Although real estate was the immediate victim of the credit crunch in many countries, there have been serious consequences to global banking systems and economies as a whole (Parkinson et al., 2009). The financial crisis has resulted in the collapse of large financial institutions and forced governments into introducing emergency bailout measures in order to halt and prevent the worsening of the economic recession. In some countries, the housing market has been seriously affected, with occupants being evicted, foreclosures due to mortgage defaults (Bone & O'Reilley, 2008) and increases in the number of vacant dwellings (Kitchin et al., 2010).

With the economic crisis threatening to intensify worldwide, various governments implemented various counter-crisis measures intended to revive the economy. In some countries, the crisis measures led to slight optimism towards the end of 2009 and it was hoped that the major economies of the world would start to show positive growth once again in 2010. On the other hand, the 2009 annual report on the Slovenian real estate market observes that, while Slovenia still had positive economic growth in 2008, it turned out to be one of the countries severely affected by the crisis in 2009 (Surveying and Mapping Authority of the Republic of Slovenia, Sln. *Geodetska uprava Republike Slovenije*, GURS, 2010). According to the report, economic activity declined sharply with a real fall of gross domestic product of 8.1% in 2009 as compared to 2008. The level of demand, both domestic and foreign, decreased considerably. The number of people employed decreased and the average salary for workers in December 2009 was, in real terms, about the same it was at the end of 2008, despite 1.8% annual inflation. Average annual real estate prices also started to fall in 2009. Considering the level of transactions realised, 2009 may be described as the year when the crisis became clearer. All of these facts provide evidence that the global financial crisis seriously affected Slovenia's economy – which, of course, also includes its housing market.

Throughout the last two decades, the Slovenian housing market has been characterised by a very high housing demand under circumstances of limited supply. This state of affairs may primarily be attributed to the effects of the housing reforms introduced in 1991. As is always the case in such situations, speculators seeking huge quick profits have driven house prices to unsustainable levels relative to average incomes. However, as stated above, the situation changed significantly after the onset of the global financial crisis in 2007. Statistical records have shown a slight decline in the growth of house prices and there are signs of stagnation in housing demand. Both experts and non-experts are constantly offering predictions of future market trends. The majority of them predicted sharp falls in house prices immediately after the crisis emerged. At the time of writing this paper, however, there has not yet been any significant fall in house prices. On the contrary, house prices increased once again (although only slightly) at the end of 2009. This situation has created confusion among some of those that expected significant price reductions. Under the circumstances, these developments have prompted various (contrasting) viewpoints among housing experts. All in all, there is talk of a housing crisis in Slovenia.

This paper highlights some important factors that may be crucial in more accurately determining the causes and nature of the current housing crisis. There are generally two major explanations for the current housing crisis. In some circles, the crisis is believed to be due to the housing bubble burst that some experts have been announcing and expecting to occur for several years now. These are convinced that the bubble has finally burst because house prices had reached the highest possible levels that buyers were willing to pay. Others see the current housing crisis as a direct consequence of the credit crunch, which reduced the availability of mortgages and led to eventual depressed demand. However, this paper stresses as vital to this debate the recognition that there has been a housing crisis in Slovenia for almost 20 years. Thus, all the discussions about a "current" housing crisis are purely academic. Essentially, it is argued that Slovenia's housing crisis started in 1991, it continues to persist today, and there is no strong evidence on which to base hope for improvement in the near future. The analysis is based on a review of the general housing situation in Slovenia, with a particular focus on the events of the last 4 years (2007–2010). The major characteristics of the housing market are presented and, against this background, the conclusion suggests that there has been no residential "bubble burst" in Slovenia. A clear distinction is also made between the financial crisis and the credit crunch. This distinction makes it possible to conclude that the household housing market has been affected by the current global financial crisis (but not the credit crunch), whereas the construction industry, on the other hand, has been significantly affected by both the financial crisis and the credit crunch.

Below, this paper identifies the facts that may provide grounds for or against either of the above hypotheses. To this end, it is first of all necessary to state a working definition for a bubble burst and briefly describe the nature of the current credit crunch.

1.1. Housing bubble burst

According to the *Investor Dictionary* (see Internet 1), a real estate bubble, property bubble or housing bubble for residential markets is a type of economic bubble that occurs periodically in local or global real estate markets. It is characterised by rapid increases in the valuations of real property such as housing until they reach unsustainable levels relative to incomes and other economic indicators, followed by decreases that can result in many owners holding negative equity (a mortgage debt higher than the value of the property). A bubble burst is normally preceded by a credit explosion often facilitated by easy access to unconventional mortgages that enable people to take out bigger loans. Easy credit, and a belief that house prices will continue to appreciate, encourages many subprime borrowers to obtain adjustable-rate mortgages. This leads to a building boom, which, under circumstances of economic prosperity, inevitably results in a house price explosion. Eventually, a surplus of unsold homes emerges on the market. At this point, prices peak and begin declining. This is when the housing bubble bursts.

Various authors have expressed various opinions on the question of the bubble burst. Whereas Ansgar Belke and Marcel Wiedmann (2005) and Timothy Schiller (2006) wondered whether there was an excessive supply on the American housing market that could lead to a bubble burst, James Smith (2005) did not see any danger of a bubble burst occurring. On the other hand, a study by Eddie Hui and Shen Yue (2006) investigated whether the housing bubble had in fact already burst in Peking and Shanghai in 2003. A typical example of the conditions that lead to a bubble burst is described by Rob Kitchin et al. (2010) in their article on the consequences of the financial crisis on Ireland's housing market. The authors note that in 2007, Ireland, along with Spain, was producing more than twice as many units per head of population than elsewhere in Europe. During the period described in the article as the "Celtic Tiger boom" Ireland experienced phenomenal growth in property construction and house prices. "Both development and its underlying finances were allowed to become massively over-extended, creating an enormous property bubble. Rather than the much hoped for 'soft landing', the bubble popped in spectacular fashion leading to a radical transformation of the property market, with tumbling house prices and widespread negative equity, and a collapse in construction activity" (Kitchin et al., 2010: 2). The consequences and situation after the bubble burst in various countries have been discussed by various authors, including Andy Holloway (2008) for Canada, W. Erwin Diewert et al. (2009) for the US, Michael Parkinson et al. (2009) for the UK, Hugo Priemus (2010) for the Netherlands, Shujie Yao et al. (2010) for China and Kitchin et al. (2010) for Ireland. Although the majority of these discussions focus on economic aspects and their impact on the housing market, John Bone and Karen O'Reilley (2010) adopt a multidimensional sociological approach that investigates specific experiences of individuals that were seriously affected by the bubble burst in the UK.

1.2 Credit crunch

Parkinson et al. (2009: 4) define a credit crunch as "a sudden cut in the availability of credit or loans, including mortgages, credit cards and inter-bank lending as banks worry about a lack of liquidity". The authors clarify further that under circumstances of a credit crunch lenders stop lending, borrowers cannot borrow, builders cannot build and buyers cannot buy. Because buying a home requires substantial financial resources usually secured by taking out a mortgage, unavailability of mortgages has the consequence of potential buyers not being able to buy. The credit crunch means that banks are reluctant to lend to each other. Banks rely on the liquid transfer of cash between one another to fund their loans to buyers. When loans dry up, it becomes impossible for banks to finance risky mortgage deals like those seen over the past few years in some countries. If there are no mortgages available, buyers cannot buy houses. In the event of a long-lasting credit crunch situation, sellers may be forced to withdraw their property from the market or sell at a reduced price. The literature generally identifies two most important causes of a credit crunch, namely:

- A sustained period of careless and inappropriate lending, which results in losses for lending institutions and investors in debt when the loans turn sour; and
- A reduction in the market prices of previously overinflated assets.

In their article discussing the impact and implications of the current credit crunch in the UK, Parkinson et al. (2009) identify the following specific events that sparked the present financial crisis in the US:

- A rise in interest rates led to a fall in US house prices from an annual rate of 20% in the second quarter of 2005 to −4.7% in the final quarter of 2006;
- Mortgage defaults sharply increased;
- By the end of 2006, the value of subprime mortgage-backed securities collapsed;
- The fall in mortgage market activity and the value of subprime mortgage-backed securities led to bankruptcy among several US mortgage lenders.

For the purposes of this analysis, it is important to stress that researchers identify two characteristic stages of the credit crunch: the subprime crisis and the much wider financial crisis generated by the pricing of other types of assets and the

consequent impact on the financing of the banking system. The subprime lending phenomenon has been widely discussed in the recent past by various authors (e.g., DiMartino & Duca, 2007; Sanders, 2008; Shiller, 2008; Coleman, 2008; Parkinson et al., 2009; Issa 2010). They generally describe the subprime crisis as the result of irresponsible lending activities of banking and non-banking mortgage institutions with the principle aim of increasing the extent of lending in order to acquire more profit from interest. Subprime mortgages are essentially adjustable-rate mortgages granted to individuals with poor or low credit-repayment capacity. To make matters worse, such lending was carried out on the basis of mortgage-backed security (MBS) schemes. Invented in the US during the 1970s, for almost three decades mortgage-backed securitisation was regarded as one of the most important financial innovations in the real estate sector. The securitisation model enables the originating bank to sell the mortgage to investors through mortgage-backed securities. This essentially means that the originating bank passes on the risk to the investors and is no longer required to hold the mortgage to maturity. In this way, the originating bank replenishes its funds, enabling it to issue more loans and generating transaction fees (Pryke & Whitehead, 1994; Stiglitz, 2009).

Contrary to the situation in many countries worldwide – for example, the US (McKibbin, 2006), UK (Parkinson et al., 2009), Ireland (Kitchin et al., 2010) and China (Yao et al., 2010) – the MBS model described above does not apply in Slovenia. The country maintains a rather conservative banking system with built-in mechanisms that prevent the issuance of subprime mortgages. It is important to point out here that Slovenia has no specialised housing mortgage institutions. All loans for housing finance are provided by traditional commercial banks. Most of these banks do, however, also offer some quasi-mortgage loans that, with respect to loan conditions, differ considerably from those normally offered by specialised mortgage banks. Characteristically, commercial banks normally offer loans of shorter annuity periods with maturities between 10 to 20 years. Although maximum loan amounts rarely exceed 30% of the total cost of the property, some banks are known to demand collateral far exceeding (even up to 300%) the loan in value. On top of this, Slovenian banking regulations require that banks approve loans only to applicants with permanent employment or with other forms of permanent income (e.g., pensioners). In addition, the monthly loan instalments must not exceed one-third of the applicant's monthly salary. This measure is intended to prevent the entrance into the mortgage market of subprime borrowers with weak repayment capacity. All of this means that one cannot talk of a general subprime crisis in Slovenia. Instead, the effects of the global financial crisis on the housing market are more relevant to the local situation.

Given the circumstances described above regarding Slovenian banking standards, it may be concluded that it is not possible to talk of a credit crisis that would occur as a result of subprime lending. It is vital to stress, however, that this argument applies only to individual lending (physical persons) and not to institutional lending (legal persons). Below it is argued that the wider global financial crisis is more relevant to the discussion of the situation in the Slovenian housing market. Against this background, factors are presented and discussed that are conducive to determining whether the current situation in the Slovenian housing market is the result of a cyclic bubble burst, a consequence of the credit crunch or perhaps simply a continuation of the previous situation that prevailed prior to the outbreak of the global financial crisis.

2 Main housing market characteristics

2.1 Housing supply

One of the key indicators of the efficient operation of a housing market is an appropriate balance of demand and supply. Slovenia's housing market has been, and continues to be, unable to achieve any kind of semblance of equilibrium of supply and demand, in spite of the various policy measures that have been implemented in the past towards this goal. The market has been plagued by a critical shortage of supply since the introduction of housing reforms in 1991.

Housing policy in Slovenia is implemented by the government on the basis of the National Housing Programme (NHP), a document prepared by the Ministry of the Environment and Spatial Planning and adopted by the National Assembly (Sln. *Nacionalni stanovanjski program,* Ur. l. RS, no. 43/2000). This discussion focuses on the provision of the NHP adopted in 2000, which stated, among other goals, the "need to increase gradually the level of new housing construction, intended to reach a production rate of 10,000 new dwellings per annum by the year 2009". It should, however, be noted that, although the NHP was finally adopted by the National Assembly in 2000, housing policy was implemented (prior to its formal adoption) on the basis of the Draft National Housing Policy adopted by the government in 1995 (Sendi, 1995). Table 1 shows the rate of production of new dwellings after the introduction of housing reforms in 1991.

Although new housing production levels remained far below demand during the 1990s, the data in Table 1 show a gradual increase in annual production through the 2000s, especially from 2004 onwards. Although the aforementioned goal of production of 10,000 new dwellings per annum by 2009 was

nearly achieved in 2008, the figures for 2009 show a slight decline in production levels. Whether this is a sign of a downturn in coming years is not yet clear. However, this is worrying because the number of completions in 2009 ought not to have been affected by the financial crisis that hit Slovenia only in the middle of 2008, when previously planned developments underway ought to have been approaching completion. As such, it is not yet clear what caused the decline in the number of completions in 2009. In any case this certainly has nothing to do with a bubble burst and, most probably, not even the consequence of the credit crunch. What needs to be stressed in the discussion on housing supply is that new dwelling production levels have, throughout the last two decades, lagged far behind demand levels. The data presented in Table 1 enable two major observations in support of the hypothesis. First, since 1975 there has been no housing construction boom in Slovenia of the magnitude described earlier for the case of Ireland. Even the target set by the NHP (10,000 dwellings per annum) was not achieved. As such, demand continues to exceed current supply. According to the working definition, a bubble is created by excessive growth in housing construction and the consequent supply surplus, and so the evidence presented above shows that the conditions for a bubble burst to occur were not fulfilled. It may thus be concluded that there has been no bubble burst on the Slovenian housing market as yet.

The huge gap between supply and demand (especially in Ljubljana) is best illustrated by the results of calls for the allocation of non-profit rental housing announced periodically by the Ljubljana Municipal Housing Fund (LMHF). A detailed analysis of these calls reveals several important characteristics of Slovenia's housing market regarding supply and demand (Sendi, 2007). First, since the initial call in 1995, the LMHF has received a total of 15,879 applications for the allocation of non-profit rental housing. Of these, 3,000 applications were rejected for not satisfying the eligibility criteria, which means that 12,810 applicants were accepted and included on the priority list for allocation. It is, however, vital to note that the number of applications submitted to each call (1,134 on average) always far exceeded the number of dwellings on offer (134 on average). In other words, the number of applications received during this period exceeded the number of available dwellings by 843%. Thus, only a small number of eligible applicants were lucky to acquire housing in a particular call. Summing up, from 1995 until 2009 the LMHF was able to allocate only 1,912 dwellings out of a total of 15,879 applications. It is important to stress once again that, of this total number of applications, 10,898 applicants were not allocated dwellings despite the fact that they fulfilled the eligibility criteria. The final observation to be made here is that the fund is capable, on average, of providing housing for only 12% of the demand expressed through the municipality's call for the allocation of non-profit rental housing. This analysis shows that there has always been a huge problem of access to affordable housing. The problem of housing affordability in Slovenia is further illustrated by a comparison of average house prices and average wages (Table 2).

Table 1: Number of annual completions, 1991–2009.

Year	No. of dwellings
1991	5,918
1992	6,492
1993	7,952
1994	5,522
1995	5,715
1996	6,228
1997	6,085
1998	6,518
1999	5,142
2000	6,460
2001	6,421
2002	7,265
2003	6,567
2004	7,004
2005	7,516
2006	7,538
2007	8,357
2008	9,971
2009	8,561

Source: Statistical Office of the Republic of Slovenia (1991–2009)

As the data in Table 2 clearly show, an individual earning an average salary would, on average, need 140 salaries (almost 12 years) to be able to purchase a 50 m^2 apartment. This was the case before the financial crisis and continued to be the case after the crisis hit. A more detailed review of statistical data in fact shows that the affordability of housing in Slovenia deteriorated significantly from the early 1990s onwards, with house prices rising faster than earnings. There is therefore no basis for suggesting that the current financial crisis is to be blamed for the inadequate supply of housing in Slovenia and neither is the current crisis responsible for the country's housing affordability problem.

2.2 Recent price trends

The report on the real estate situation in 2009 published by the GURS (2010) identified house price fluctuations in Slovenia in the third quarter of 2007, which followed the property bubble burst in the US, as the first warning of a possible crisis in the country's housing market. These fears became a reality at the beginning of 2008. The report observes that initially there was a reduction in the number of residential property transac-

Table 2: Housing affordability in Ljubljana.

Year	Average price (€/m²)	Average price for a 50 m² apartment (€)	Average monthly salary (€)	No. of salaries for a 50 m² apartment
2005	2,023	101,150	775.87	130
2006	2,408	120,400	821.80	146
2007	2,612	130,600	887.58	147
2008	2,704	135,200	945.99	143
2009	2,596	129,800	963.94	135

Source: Author's calculations based on data from the Statistical Office of the Republic of Slovenia and SLONEP (see Internet 2).

tions while house prices continued to grow. This increase is explained as due to the fact that the majority of sales completed were for better-quality and therefore relatively more expensive housing, whereas poorer-quality housing that was being offered for unrealistically high prices remained unsold. Although real estate transactions continued to fall, the report continues, house prices started to fall only in the third quarter of 2008.

The quarterly house price changes in the period from 2007 to 2009 for Ljubljana and the national level are summarised in Table 3. As can be seen from the table, average prices of resale apartments in Ljubljana already fell slightly in the third quarter of 2007 before the global financial crisis hit Slovenia. They then increased in the first quarter of 2008, fell again in the third quarter of 2008 and continued to fall until the second quarter of 2009. There was a brief increase in the third quarter of 2009, which was followed, once again, by a slight fall at the end of 2009 (Table 3). The figures for the national level show an increase between the fourth quarter of 2007 and second quarter of 2008, followed by decreases during the next three quarters until the third quarter of 2009 and a slight rise in the last quarter of 2009.

The data presented in Table 3 enables two major observations in support of the hypothesis. First, the figures show that there was no explosion of house prices in the period preceding the financial crisis. It is true that house prices generally increased until the second quarter of 2008, but it is also vital to recognise that they have been fluctuating throughout this period. The growth in house prices has been steady but not phenomenal. Second, although house prices in Slovenia fell, for the first time (in the period 2007–2009) in the third quarter of 2008 and continued to fall gradually until the third quarter of 2009, they rather surprisingly increased once again in the fourth quarter of 2009, both in Ljubljana and at the national level.

Referring back to the working definition of a bubble burst, it may therefore be concluded that the situation in Slovenia does not warrant the declaration of a bubble burst because there was no rapid and sharp increase in house prices as was described in the case of Ireland. On the other hand, the financial crisis appears to have played some role in the fall (at least briefly) of house prices in Slovenia. Because it is not clear at this moment what the situation will be like at the end of 2010, more time is required before a more accurate evaluation can be made.

2.3 Effect of the financial crisis on housing transactions

According to GURS data, real estate transactions generally reached the lowest level in the first half of 2009. As may be gathered from Table 4, the number of recorded transactions of residential property started to fall in the third quarter of 2007 and continued to fall until the first quarter of 2009. In view of the circumstances that arose after the financial crisis, it is interesting to note that the number of housing transactions increased once again in the second quarter of 2009. Furthermore, the data show that the number of apartment transactions in the first quarter of 2009 almost doubled in the fourth quarter of that year, whereas those for houses more than quadrupled.

The data presented in Table 4 show a 19% fall in the number of transactions for apartments and a 12% fall in the case of house sales after the onset of the financial crisis. The figures for 2009, on the other hand, indicate a constant growth of transactions

Table 3: Average prices of resale homes in Ljubljana and Slovenia by quarter, 2007–2009.

Year	Quarter	Ljubljana (€/m²)	Slovenia (€/m²)
2007	1/4	2,550	1,640
	2/4	2,700	1,750
	3/4	2,760	1,640
	4/4	2,640	1,740
2008	1/4	2,760	1,850
	2/4	2,820	1,930
	3/4	2,720	1,850
	4/4	2,640	1,800
2009	1/4	2,480	1,710
	2/4	2,350	1,680
	3/4	2,470	1,670
	4/4	2,460	1,730

Source: GURS (2010)

Table 4: Number of housing transactions by quarter, 2007–2009.

Year	Quarter	Apartments	Houses
2007	1/4	2,578	1,174
	2/4	2,766	1,496
	3/4	2,889	1,530
	4/4	2,770	1,526
2008	1/4	2,221	1,261
	2/4	1,788	1,107
	3/4	1,555	743
	4/4	1,155	349
2009	1/4	997	209
	2/4	1,037	332
	3/4	1,587	816
	4/4	1,957	893

Source: GURS (2010)

on the housing market once again. As such, the credit crunch does not appear to have had any significant impact on buyers' purchasing capacity, although the number of transactions at the end of the fourth quarter of 2009 was below the levels achieved prior to the onset of the financial crisis in the middle of 2008. Given that houses are normally purchased with the help of a loan, it may be deduced further that the credit crunch did not significantly affect the level of accessibility to bank financing in individual housing investment.

2.4 Effect of the financial crisis on the level of new construction

It may be argued that the home-building industry is the real estate sector that has, undoubtedly, been hit hardest by the financial crisis. According to Eurostat data, in 2005 Slovenia was ranked behind Slovakia, the Czech Republic, Poland, Romania and Bulgaria as the countries with the lowest construction costs (European Commission, 2009). This enabled developers to earn high profits because the sales prices (especially in Ljubljana) were comparable to those in some of the most expensive European cities. However, the situation changed notably after the financial crisis. The developers' expectations suddenly became unrealistic. Statistical figures show that the level of new construction decreased by more than 50% between December 2008 and December 2009. In addition to the reduction of investments in new construction, there is also a noticeable slowdown in the realisation of projects whose construction started before the crisis hit.

The situation in which some construction companies found themselves after the onset of the financial crisis may be illustrated by the example of Vegrad, a construction company that was experiencing serious problems at the time of writing this paper. An article published in a major national newspaper reveals that the company's net revenue from sales grew rapidly between 2002 and 2008 (Kovač, 2010). Concretely, before the onset of the crisis in 2008, Vegrad's net revenue was 175% higher than that of 2000. On the other hand, the company's nominal capital value increased by a mere €5 million (from €19.7 million to €25.1 million) between 2000 and 2009. During the same period, the total debt (financial and business operations) rose from €44.6 million to €237.6 million – that is, fivefold. As Stanislav Kovač explains, the rapid growth of Vegrad's operations was financed primarily through excessive borrowing, which in 2008 exceeded the level of 2000 by 386%. He describes the behaviour of creditors as "gambling bankers that generously offered loans to the company despite a high quotient of financial leverage, which ought to have been an warning sign to every prudent banker that Vegrad had been a credit time bomb for several years" (Kovač, 2010: 10). At the time of writing this paper, the company was already in the process of liquidation. The case described above provides proof of the irresponsible lending practices of banks. As Yao et al. (2010) suggest in their analysis of the housing situation in China after the onset of the financial crisis, rising house prices made mortgage lending lucrative and attractive to banks and other financial institutions. As it later turned out, these practices had very serious consequences.

There is therefore no doubt that the financial crisis had a serious impact on the home-building industry. Banks have once again tightened loan requirements in the investment sector. Some companies (like the one described above) cannot even secure a loan from any bank. As such, it is possible to conclude that the financial crisis led to a credit crunch in the construction industry. The credit crunch has, in fact, also seriously affected many banks, some of which are currently struggling hard to remain afloat.

2.5 The role of banks in financing housing investments by natural persons

For the purposes of this analysis, a request for information was sent to all Slovenian banks licensed to offer loans for housing finance. The request asked the banks to provide data on the number of loans approved by the bank to individuals in the period from 2000 to 2010 (the data for 2010 represents approved loans until August of that year). The aim of this brief survey was to more accurately investigate the level of bank activity in the provision of housing finance prior to and after the financial crisis. This information was intended to help establish with greater certainty whether and to what extent bank lending practices might also have led to the creation of the credit crunch in this area.

Of the 20 banks included in the survey, only six responded positively with the information requested on private housing financing. Notwithstanding the relatively low level of response, the information obtained is nonetheless quite indicative. This is especially so because it was possible to obtain the required information from almost all the largest banks. It must be noted here that most of the banks that sent the data asked that the bank's name not be published in this paper. The banks' names have therefore been replaced with letters (i.e., Bank A to Bank F).

The data provided by Bank A show an annual increase in the number of loan approvals from 2003 (489) to 2007 (1,303), followed by a decrease from 2007 to 2009 (1,070). The main observation here is that the number of loans granted by the bank already decreased in 2007; that is, before the financial crisis hit Slovenia. The information provided by Bank B shows a steady increase in the number of loan approvals since 2000 (85) to 2008 (1,183) and a reduction in 2009 (1,095). In the case of Bank C, the number of approvals increased from 2001 (113) to 2006 (2,142) and then decreased from 2,119 approvals in 2007 to 1,694 in 2008 and decreased further in 2009 to 975. It may be observed also in this case that the number of approvals decreased prior to the financial crisis. At Bank D, the number of approvals increased between 2002 (1,182) and 2005 (4,917), decreased in 2006 (4,144), increased once again in 2007 (5,903) and decreased again in 2008 (3,913) and 2009 (3,668). The data provided by Bank E show greater fluctuations in the level of loan of loan approvals throughout the last 10 years. In comparison with 2000 (50), the number of approvals decreased in 2001 (38) and 2002 (30), increased in 2003 (41) and 2004 (91), decreased in 2005 (80), increased in 2006 (142), decreased in 2007 (133) and 2008 (96), and increased again in 2009 (136). The information provided by Bank E is particularly interesting because it shows that the number of approvals increased significantly in 2006 and then decreased between 2007 and 2008 before the financial crisis hit. Furthermore, it is important to note that the bank approved more loans in 2009 (after the credit crisis hit) in comparison with 2008. More surprisingly still, the number of approvals by Bank E for the period from January to August 2010 had already exceeded its total number of approvals for 2009. This is a clear indication that the financial crisis did not reduce the level of lending activity in individual housing finance. Like Bank E, the data obtained from Bank F show constant fluctuations in lending levels between 200 and 2000. In comparison with 2000 (501), the number of approvals decreased in 2001 (424), increased in 2002 (521), decreased in 2003 (429), increased in 2004 (773), 2005 (896) and 2006 (1,007), decreased once again in 2007 (962) and 2008 (664), and increased again in 2009 (941). Bank F also approved more loans in 2009, 42% more than the number of approvals in 2008.

Generally, there are two main conclusions to this short survey of bank activity prior to and after the onset of the financial crisis. The information provided by the banks shows that the financial crisis did not have a significant impact on bank lending activity in individual housing financing. Second, although the level of lending generally declined from 2008 to 2009, there is no certain evidence (as yet) that these reductions are due to the credit crunch. As has been shown, Banks E and F even increased their levels of loan approval in 2009. It may be concluded, therefore, that the practices of the Slovenia banks studied for private housing financing did not contribute to the eventual onset of the credit crunch, which, otherwise, occurred in bank lending to legal entities.

3 Conclusion

It has been argued throughout this discussion that much of Slovenia's housing market has not been significantly affected by the credit crunch. This, however, does not mean that the market has been immune to the effects of the global financial crisis. The fundamental viewpoint promoted here is that Slovenia's housing market problems have a long tradition, such that one needs to be very cautious before declaring bubble bursts or credit crunch effects. This recalls the core questions of the paper: namely, has the bubble burst in the Slovenian housing market? What has been the impact of the credit crunch? To help answer these questions, it is necessary to re-examine the definitions of a bubble burst and credit crunch.

According to the working definition, a housing bubble for residential markets is characterised by rapid price increases until they reach unsustainable levels relative to incomes and other economic indicators. As explained in the discussion, house prices did not increase rapidly in Slovenia. On the contrary, they have been increasing steadily since the early 1990s. Furthermore, house prices already reached unsustainable levels relative to income by the end of the 1990s. Taking into account these two facts (especially the latter one), the housing bubble ought to have burst 10 years ago. Essentially, the slowdown in the growth of house prices has mainly been due to reduced demand under circumstances of an economic recession and the potential threat of unemployment. The definition also specifies decreases in property values that result in owners holding negative equity, as one of the conditions that constitute a bubble burst. There is no evidence of any kind of owners holding negative equity in Slovenia. In fact, it may be argued that the chances of this happening in the future are minimal. The explanation for this lies in the conservativeness of the current banking system described in the introduction. Although the absence of traditional mortgage banking has frequently been criticised, the rigid lending practices of commercial banks prevent the occurrence of the subprime mortgaging practices that

sparked the current credit crunch in the US. The circumstances described above make it almost impossible for the value of the collateral used to secure a loan to fall below the outstanding balance on the loan, which would then result in borrowers holding negative equity. At the time of writing this article, there was no evidence of negative equity in Slovenia. Regarding this issue, mass media journalists that monitor developments in the housing sector were also consulted; they stated that they had no information on such occurrences. In fact, the possibility of this phenomenon occurring in Slovenia appears minimal. This conviction is based on the conservative nature of the Slovenian banking system, which was described in the introduction. The requirements that must be fulfilled in order to acquire large loan amounts prevent the granting of subprime loans. With these standards strictly adhered to, it is not possible for the mortgage to exceed the value of the property and, consequently the occurrence of negative equity. It may, therefore, be concluded that this condition for a bubble burst has not been fulfilled either. Another important precondition for a bubble burst is the housing boom. This normally occurs in the form of excessive home-building, which may result in an excessive supply of dwellings on the housing market. Whereas the bubble burst in Ireland is primarily attributed to a phenomenal growth in property construction and the consequent rise in house prices, it has been shown here that the level of new housing construction in Slovenia has persistently lagged behind the level of demand. Although the ensuing shortage of supply has, logically, resulted in excessive price increases, there has been no housing construction boom that would lead to a burst due to a supply surplus.

Regarding the credit crunch, the working definition identified its major causes as a sustained period of careless and inappropriate lending, which results in losses for lending institutions and investors in debt when the loans turn sour and there is a reduction in the market prices of previously over-inflated assets. The specific events that sparked the present financial crisis in the US included a rise in interest rates that led to the fall in house prices, a sharp increase in mortgage defaults and a collapse in the value of subprime mortgage-backed securities. So what has been the impact of the credit crunch on Slovenia's housing market? Starting with the aspect of careless and inappropriate lending, it has been explained above that the Slovenian banking system has stringent criteria governing the granting of loans to individuals. As such, there are no careless and inappropriate lending practices in this area that would lead to a credit crunch. More accurately, there has been no credit crunch in individual (natural person) housing finance. Nonetheless, the financial crisis has strongly affected buyers' market behaviour. As explained earlier in this paper, the economic crisis, growth of unemployment and stagnation of real wages have led to a decrease of purchasing power in general and the consequent reduction of demand. This is also manifested on the real estate market. Although banks appear to be willing to offer housing finance loans, some potential homebuyers are not eager to undertake credit burdens under circumstances of economic uncertainty.

Regarding bank lending activity to legal entities, on the other hand, no similar stringent criteria apply for the approval of loans to commercial investors. Like numerous banks worldwide, Slovenian banks have fallen victim to the current financial crisis as a result of careless and inappropriate lending. The commercial sector most relevant to the discussion here is, of course, the construction industry. Due to its heavy reliance on speculative borrowing, the home-building sector has been hurt quite badly by the credit crunch. The crisis has seriously affected various (small- and large-scale) investors that entered the market under favourable circumstances irrespective of the appropriateness (or quality) of their developments. In the period that preceded the financial crisis, many developers took out huge bank loans, bought speculatively overvalued construction land and invested in mega-housing projects – expecting, of course, high returns from sales. As has been described in the case of Vegrad, the onset of the financial crisis turned the situation upside down. Several construction companies are experiencing serious problems and some are facing possible liquidation. The answer to the above question is, therefore, that the impact of the credit crunch in this sector was tremendous. Presently, it is not clear what would happen if the banks were to embark on a large-scale repossession of the unsold dwellings owned by indebted investors and then sell them off at reduced prices. It must be noted, however, that banks are neither interested in nor qualified to execute property sales. As such, the banks will probably do whatever is possible to avoid such a course of events. Even if a large construction company were to go bankrupt, this does not necessarily mean that its unsold property would suddenly appear on the market at considerably lower prices. This is unlikely to happen because it is also in the interest of creditors (i.e., banks) to keep sales prices as high as possible in order to guarantee easier repayment of outstanding debts. Pushing debtors into bankruptcy and recovering their loan money through the sale of repossessed property would therefore be the banks' last option. Meanwhile, there have been and continue to be expectations that the debtors themselves will start to reduce the prices of unsold property in order to rescue their business activity.

Finally, it is important to point out that the financial crisis might have nonetheless impacted the housing market with regard to the quality of dwellings. As is widely held in expert circles, greater differentiation between poorer- and better-quality housing is believed to be occurring for the first time in Slovenia's housing market history. This may also mean that

the prices of poor-quality property may be expected to fall while those of better housing will continue to grow. Overall, given that demand for affordable housing continues to exceed supply, it is very likely that house prices will continue to rise in the future (probably at a slower pace), as soon as the economic situation improves and customer purchasing power grows again.

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References

Belke, A. & Wiedemann, M. (2005) Boom or bubble in the US real estate market? *Intereconomics,* 40(5), pp. 273–284. DOI: 10.1007/s10272-005-0157-0

Bone, J. & O'Reilley, K. (2010) No place called home: The causes and social consequences of the UK housing 'bubble'. *British Journal of Sociology*, 61(2), pp. 231–255.

Coleman, M. (2008) Subprime lending and the housing bubble: Tail wags dog? *Journal of Housing Economics,* 17(4), pp. 272–290. DOI: 10.1016/j.jhe.2008.09.001

DiMartino, D. & Duca, J. V. (2007) The rise and fall of subprime mortgages. *Economic Letter – Insights from the Federal Reserve Bank of Dallas,* 2(11), pp. 1–11.

Diewert, W. E., Nakamura, A. O. & Nakamura, L. I. (2009) The housing bubble and a new approach to accounting for housing in a CPI. *Journal of Housing Economics,* 18(3), pp. 156–171. DOI: 10.1016/j.jhe.2009.07.008

Evropska komisija (2009) *Eurostat statistical books. Europe in figures. Eurostat yearbook 2009.* Luxembourg, Office for Official Publications of the European Communities.

Holloway, A. (2008) Safe as houses? *Canadian Business*, 81(7), pp. 58–71.

Hui, E. C. M. & Yue, S. (2006) Housing price bubbles in Hong Kong, Beijing and Shanghai: A comparative study. *Journal of Real Estate Finance and Economics,* 33(4), pp. 299–327. DOI: 10.1007/s11146-006-0335-2

Internet 1: http://www.investordictionary.com (accessed 12 Sept. 2010).

Internet 2: http://www.slonep.net/ (accessed 12 Sept. 2010).

Surveying and Mapping Authority of the Republic of Slovenia (2010) *Letno poročilo o slovenskem nepremičninskem trgu za leto 2009.* Ljubljana.

Issa, D. (2010) Unaffordable housing and political kickbacks rocked the American economy. *Harvard Journal of Law & Public Policy*, 33(2), pp. 407–419.

Kitchin, R., Gleeson, J., Keaveney, K. & O'Callaghan, C. (2010) *A haunted landscape: Housing and ghost estates in post-Celtic tiger Ireland.* Maynooth, NUI Maynooth, National Institute for Regional and Spatial Analysis.

Kovač, S. (2010) O zanič menedžerski Hildi Tovšak, ki je z ekcesnim zadolževanjem uničila Vegrad. *Finance*, 160, 19 Aug. 2010, p. 10.

McKibbin, W. & Stoeckel, A. (2006) Bursting of the US housing bubble. *Economic Scenarios,* 14, pp. 1–8.

Nacionalni stanovanjski program. Uradni list Republike Slovenije, no. 43/2000. Ljubljana.

Parkinson, M., Ball, M., Blake, N. & Key, T. (2009) *The credit crunch and regeneration: Impact and implications*. Independent report. London, Department for Communities and Local Government.

Priemus, H. (2010) The credit crunch: Impacts on the housing market and policy responses in the Netherlands. *Journal of Housing and the Built Environment*, 25(1), pp. 95–116. DOI: 10.1007/s10901-009-9175-8

Pryke, M. & Whitehead. C. (1994) An overview of mortgage-backed securitisation in the UK. *Housing Studies,* 9(1), pp. 75–101. DOI: 10.1080/02673039408720776

Sanders, A. (2008) The subprime crisis and its role in the financial crisis. *The Journal of Housing Economics*, 17(4), pp. 254–261. DOI: 10.1016/j.jhe.2008.10.001

Schiller, T. (2006) Housing: Boom or bubble? *Business Review*, Q4, pp. 9–19.

Smith, J. F (2005) There is no housing bubble in the USA: Housing activity will remain at high levels in 2005 and beyond. *Business Economics*, 29, pp. 29–35. DOI: 10.2145/20050203

Sendi, R. (1995) Koliko je socialen predlagani Nacionalni stanovanjski program Republike Slovenije? *Urbani izziv*, 28–29, pp. 109–116. DOI: 10.5379/urbani-izziv-1995-28-29-012

Sendi, R. (ed.) (2007) *Stanovanjska reforma: pričakovanja, potrebe, realizacija.* Ljubljana, Urbani izziv – publikacije.

Shiller, R. (2008) *The subprime solution: How today's global financial crisis happened, and what to do about it*. Princeton, Princeton University Press.

Statistical Office of the Republic of Slovenia (1999–2009) *SI-Stat Podatkovni portal.* Available at: http://www.stat.si/ (accessed 10 Sept. 2010).

Stiglitz, J. E. (2009) *The financial crisis of 2007–2008 and its macroeconomic consequences*. Available at: http://unplan1.un.org/intradoc/groups/public/documents/apacity/unpan033508.pdf (accessed 10 Sept. 2010).

Yao, S., Luo, D. & Morgan, S. (2010) Impact of the US credit crunch and housing market crisis on China. *Journal of Contemporary China*, 19(64), pp. 401–417. DOI: 10.1080/10670560903444355