Introduction

The paper discusses the state of Poland’s economy during the economic crisis, with the emphasis on the construction industry and the real-estate market. In particular, the author focuses on how the crisis started, i.e. discusses its origin and development during the first period of the financial crisis in Poland. The analysis primarily concerns the period spanning from Q4 2008 to Q4 2009. The paper also deals with the current situation, i.e. the world economic crisis and, more specifically, its second wave in 2011. As all the world is seeing an economic downturn right now, the issue of business risk is becoming increasingly important. This is also evidenced by numerous corporate failures (also in Poland) and other severe problems, that entrepreneurs all over the world have to tackle. These problems are now being carefully analysed in world and domestic financial institutions (such as the World Bank, the International Monetary Fund, the Central Banks) and research centres. Intense scientific studies in this area are being conducted; this gives rise to more in-depth deliberations, which is also the subject of this paper. At the same time, in the period of the global economic crisis, the knowledge of risk management is gaining importance, as investment becomes a particularly risky business activity during the economic slump. The principal aim of the paper is to outline the impact of the global crisis, in its first stage of development, on the Polish economy and, as a follow-up, discuss increased business risks (including investment risk), by looking at the construction industry and the real-estate market as the examples. When formulating his conclusions, the author employs induction, deduction and synthesis methods; the paper also draws on the studies of the literature. Another source of information here is the Internet. Besides, the author makes use of descriptive and quantitative analyses, graphic techniques (graphs, figures, tables), etc. In order to discuss the problems, which are the subject matter of the paper in a most comprehensive way, the paper is divided into three parts. Part one describes the origin of the global credit crunch; part two deals with the Polish economy, i.e. the author focuses on the macroeconomic aspects; part three discusses the
rise in business risk due to economic downturns, based on the example of the construction industry and the real-estate market.

The data given in the paper are derived from such institutions as: the Polish Statistical Office, Poland’s Ministry of Economy and Ministry of Finance, the National Bank of Poland, the Warsaw Stock Exchange, Eurostat, etc.

Financial crisis in the world

On 15 September, 2008 the world saw a spectacular collapse of an American investment bank Lehman Brothers, and this event is regarded by many economists as a symbolic beginning of the world economic crisis. In particular, the event triggered a panic on the global stock exchanges. This led to bankruptcies of a number of financial institutions and manufacturing companies. “The essential reason why the scope of the US crisis is much wider than the scopes of the previous global crises and their impact on the world economy is securitisation of mortgages”\(^1\). The recent crunch has caused a severe crisis of public finances in many countries all over the world (e.g. Greece, Italy, Spain), as well as in Poland. Greece, in particular, has been severely affected by the consequences of the global economic crisis (public finance crisis). In order to prevent this country from bankruptcy, the European Community, especially Germany and France, have granted multi-billion loans to be paid out in tranches. The condition that Greece needs to meet to receive the next tranches of financial aid are thorough reforms of its public finance. It should be added that the recent crisis is often compared to the big world economic crisis of 1929–1933 (in Poland this crisis lasted until 1935, due to the specific profile of the Polish economy, which was dominated by agriculture). In Poland the credit crunch evolved into a typical economic crisis, long lasting and very deep. One of the reasons behind this phenomenon is the fact that it can be traced back to the turmoil on the financial markets\(^2\). The root causes of the current global financial crisis include:

- “a price bubble on the real-estate market (American one, but not only; a dramatic rise in real estate prices in the US from 1997 to mid-2006) (...) due to e.g. liberal lending policy of the financial institutions granting credits and mortgage loans,
- liberalisation and deregulation of the financial markets,
- globalisation,
- new technologies (enabling online transactions),
- new financial instruments,
- excessive leveraging at banks, hedge funds and private equity funds,

The current economic crisis has followed a long-term economic growth worldwide in the years of 2005–2008, which is illustrated in Figure 1.


Figure 1 clearly indicates the slump (shown by the curves – the blue one for the US, the red one for the Eurozone). Q4 2008 is commonly believed to mark the world financial crisis, as the first three quarters of 2008 still showed quite good performance of the world economies. We should remember, however, that the crisis had already started in 2007. Shortly before the outset of the current economic crisis, investors all over the world heavily invested in capital market instruments, looking for high rates of return. Banks, in turn, eagerly granted funding for all investments, including the ones into real estates. At the same time, consumers (borrowers) were keen to borrow as the borrowing costs were relatively low, i.e. relatively low interest rates were effective at that time. Moreover, banks did not follow any restrictive credit lending policy when granting loans (uncontrolled lending). According to the National Bank of Poland (NBP) “all these phenomena – a boom on the real-estate market and the credit market, a quick growth in household consumption, largely financed with debt, and an intense search for high rates of return – have led to severe instabilities and, consequently, macroeconomic and structural disturbances in many countries”\(^3\). Therefore, the root causes of the crisis should be looked for, first of all, in the macroeconomic sphere. The microeconomic reasons behind the economic slump ought not to be ignored either; they should be determined on the basis of the consequences caused by the crisis. A lot of businesses worldwide have gone bankrupt. The crisis has hit the world’s biggest groups (e.g. General Motors, AIG) and small businesses alike. In particular, production cuts, made by big companies, have resulted in bankruptcies of small businesses, which were


\(^4\) Polska wobec światowego kryzysu..., p. 6.
dependent on them. According to the NBP Report “the crisis had (...) a number of causes of a microeconomic nature, related, first of all, to the functioning of the financial system and the financial aspects of other entities’ operations; the key ones are: an incorrect structure of incentives, mistakes made in risk measurement and evaluation techniques as well as risk management, an ineffective structure of shareholder supervision, and the shortcomings of the regulation system (including the supervision policy)”5. This is mainly about irrational behavior of numerous investors, who ignored risk in their investment activities. They ran up huge borrowings shortly before the crisis, taking advantage of “the benefits of the banking system”, i.e. banks lent to entities without any creditworthiness. (This primarily concerned the sub-prime mortgage market.) It may even be assumed that a lack of professional actions in the risk management area, i.e. management over investment, financial and banking risks, was one of the reasons for the recent crisis6 analysed at the microscale level, i.e. investments into high risk instruments (too high ranking). A slump in prices of mortgage-backed securities (credit default swaps) is shown in Figure 2.

Figure 2. ABX.HE 07-1 index (change in value of CDS)

Source: Reuters. Behind: Polska wobec światowego kryzysu..., p. 11.

The situation presented in Fig. 2 could have come as a surprise as specialised financial institutions such as banks should have acted reasonably, i.e. should have carried out their investment and lending activities taking into consideration rates of return, on the one hand, and the risks involved on the other. American banks were the first ones to incur losses; the two biggest ones were taken over and one, i.e. Lehman Brothers’, collapsed. “After the problems of Lehman Brothers and AIG Bank Polska, the market started to look suspiciously at other banks, which could be potentially vulnerable to financial difficulties, especially

5 Ibidem, p. 6.
Goldman Sachs and Morgan Stanley, while these two banks weren’t heavily exposed on the American subprime mortgage market, and Goldman Sachs had even managed to foresee the collapse of this market and positioned itself accordingly (taking short positions), having earned a few billion dollars on it"8. The timeline of the global financial crisis, including the collapse of Lehman Brothers, is presented in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Dates</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2007</td>
<td>HSBC announces lower than expected financial results, disclosing a rise in bad credits in the American sector of subprime mortgages</td>
</tr>
<tr>
<td>March 2007</td>
<td>A report issued by the Mortgage Bankers Association shows a sudden rise in risk from the American subprime mortgage market</td>
</tr>
<tr>
<td>July 2007</td>
<td>Problems faced by two Bear Stearns hedge funds and the first encounter with the crisis</td>
</tr>
<tr>
<td>August 2007</td>
<td>Bear Stearns files for bankruptcy protection for two of their funds with too much exposure to the subprime mortgage market and suspension of payments to clients of their third fund</td>
</tr>
<tr>
<td>August 2007</td>
<td>The first German banks face serious financial problems; Germany, with a consortium of private banks, forms a rescue fund to bail them out</td>
</tr>
<tr>
<td>August 2007</td>
<td>Three investment funds belonging to BNP Paribas are suspended as their valuation is impossible</td>
</tr>
<tr>
<td>September 2007</td>
<td>Problems with Northern Rock liquidity and its nationalisation</td>
</tr>
<tr>
<td>October 2007</td>
<td>Reserves start to be established in financial institutions for bad securities based on subprime mortgages</td>
</tr>
<tr>
<td>February 2008</td>
<td>A big trading scandal; due to the actions of Jerome Kerviel, the bank makes a loss of 7 billion euros and, as a consequence, they are forced to increase their equity by issuing shares for the amount of 5.5 billion euros as an emergency scheme</td>
</tr>
<tr>
<td>March 2008</td>
<td>Bear Stearns is at the verge of bankruptcy; taken over by JP Morgan Chase</td>
</tr>
<tr>
<td>September 2008</td>
<td>Decapitalisation from government funds in the amount of 200 million USD – Fannie Mae and Freddie Mac; the institutions placed under the government’s administration</td>
</tr>
<tr>
<td>September 2008</td>
<td>Merrill Lynch is taken over by Bank of America in a transaction worth 50 billion US dollars</td>
</tr>
<tr>
<td><strong>September 2008</strong></td>
<td><strong>The collapse of Lehman Brothers – the beginning of the global financial crisis</strong></td>
</tr>
<tr>
<td>September 2008</td>
<td>The government bails out AIG; FED takes over the control of AIG; 9 November 2008 increased aid for AIG</td>
</tr>
<tr>
<td>September 2008</td>
<td>HBOS is taken over by Loyds TSB in a transaction worth 12 billion US dollars (as originally estimated)</td>
</tr>
</tbody>
</table>

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As you can see in Tab. 1, the financial crisis has impacted the biggest financial institutions worldwide\(^9\). In general, the supervision and regulation systems failed. “The factors mentioned above have led to an unprecedented increase in assets/equity ratios in the financial sector, which means a high financial leverage”\(^10\). Therefore, banks were forced to dramatically reduce their lending. This has had its consequences – for borrowers, this time, e.g. problems with borrowing to finance investments, i.e. in particular real-estate investments, which was accompanied by a fall of prices on the real-estate market and, as a result, a rise in business risk on this market. “In general, we can say that this has to do with the fact that a slump on the real-estate market, which naturally followed a period of strong expansion,

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\(^{10}\) *Polska wobec światowego kryzysu...*, p. 6.
coincided with a loss of confidence on the financial markets”\textsuperscript{11}. As seen by NBP in Poland “despite the current turmoil on the financial markets, housing credits will continue to form an increasing part of assets in the banking sector, and the housing sector will become an important determinant of stability in the financial sector, which is reflected by a significant value of housing debts in banks’ equity”\textsuperscript{12}.

Summing up, a particularly interesting issue here is state interventionism. Many governments all over the world intervened, mainly on the financial markets, i.e. the so-called “invisible hand of the market” principle, by A. Smith, was suddenly no longer valid.

**Financial crisis in Poland – macroeconomics aspects**

A sudden fall in share prices in September 2008 at the New York Stock Exchange triggered a dramatic fall in stock exchange quotations in other parts of the world. Large numbers of investors started to pull back (lose) their funds, by selling shares and other financial instruments and, at the same time, looked for so-called “safe” securities, such as government bonds or treasury notes. Also, the Warsaw Stock Exchange responded to this fall in share prices at the world’s leading stock markets. In general, the year of 2008 ended in a slump on the world’s capital markets (the bearish market). For example, the WIG rate of return in 2008 was −51.07%, although in 2009 this index was positive and amounted to 46.85%. The stock exchange data show that the years before the crisis, including the first three quarters of 2008, were characterised by positive results on the Warsaw Stock Exchange (the bull market), which is illustrated in Figure 3, presenting the historical values of the WIG20 index, i.e. from 25 November 2002 to 23 February 2012.

![Figure 3. Historical chart of WIG20 index (from 25 November 2002 to 23 February 2012)](http://www.money.pl/gielda/)


\textsuperscript{12} *Polska wobec światowego kryzysu...*, p. 11.
The following symptoms are also important, when diagnosing the general situation in an economy of a given country during the crisis:

– a decline in GDP and a slowdown in the economic growth,
– a decrease in output (in industry, first of all) and consumption,
– a reduction in employment (a rise in the unemployment rate) and pay rates in the economy,
– an increase in a budget and trade deficit and a fall in exports,
– a slowdown in investments and a rise in investment risk in the country.

The GDP is particularly important, when evaluating the condition of the economy. The GDP figures in Poland and other euro states in the period of Q4 2008–Q3 2009 are presented in Table 2.

### Table 2

GDP in Poland, compared to other countries, in Q4 2008–Q3 2009 (during the financial crisis)

<table>
<thead>
<tr>
<th>Countries</th>
<th>2008</th>
<th></th>
<th>2009</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>Corresponding quarter of the previous year = 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Union (27)</td>
<td>–1.8</td>
<td>–4.9</td>
<td>–5.0</td>
<td>–4.3</td>
</tr>
<tr>
<td>Eurozone (16)</td>
<td>–1.8</td>
<td>–5.0</td>
<td>–4.8</td>
<td>–4.1</td>
</tr>
<tr>
<td>Austriaa</td>
<td>–0.2</td>
<td>–4.0</td>
<td>–4.9</td>
<td>–3.4</td>
</tr>
<tr>
<td>Belgiuma</td>
<td>–1.5</td>
<td>–3.7</td>
<td>–4.2</td>
<td>–3.5</td>
</tr>
<tr>
<td>Cyprusa</td>
<td>2.5</td>
<td>0.7</td>
<td>–1.0</td>
<td>–2.7</td>
</tr>
<tr>
<td>Finlanda</td>
<td>–3.0</td>
<td>–6.5</td>
<td>–8.9</td>
<td></td>
</tr>
<tr>
<td>Francea</td>
<td>–1.7</td>
<td>–3.5</td>
<td>–2.9</td>
<td>–2.4</td>
</tr>
<tr>
<td>Greece</td>
<td>0.7</td>
<td>–0.5</td>
<td>–1.2</td>
<td>–1.6</td>
</tr>
<tr>
<td>Spaina</td>
<td>–1.2</td>
<td>–3.2</td>
<td>–4.2</td>
<td>–4.0</td>
</tr>
<tr>
<td>Ireland</td>
<td>–8.0</td>
<td>–9.3</td>
<td>–7.3</td>
<td></td>
</tr>
<tr>
<td>Luxemburg</td>
<td>–3.9</td>
<td>–5.9</td>
<td>–5.3</td>
<td></td>
</tr>
<tr>
<td>Maltaa</td>
<td>0.5</td>
<td>–1.7</td>
<td>–3.0</td>
<td></td>
</tr>
<tr>
<td>Netherlandsb</td>
<td>–0.7</td>
<td>–4.5</td>
<td>–5.4</td>
<td>–3.7</td>
</tr>
<tr>
<td>Germanya</td>
<td>–1.8</td>
<td>–6.7</td>
<td>–5.8</td>
<td>–4.8</td>
</tr>
<tr>
<td>Portugal</td>
<td>–1.9</td>
<td>–4.0</td>
<td>–3.7</td>
<td>–2.4</td>
</tr>
<tr>
<td>Slovakiaa</td>
<td>1.6</td>
<td>–5.7</td>
<td>–5.5</td>
<td>–4.9</td>
</tr>
<tr>
<td>Sloveniaa</td>
<td>–0.9</td>
<td>–8.8</td>
<td>–9.0</td>
<td>–8.5</td>
</tr>
<tr>
<td>Italya</td>
<td>–2.9</td>
<td>–6.0</td>
<td>–5.9</td>
<td>–4.6</td>
</tr>
<tr>
<td>Bulgariab</td>
<td>3.5</td>
<td>–3.5</td>
<td>–4.9</td>
<td>–5.8</td>
</tr>
<tr>
<td>Denmark</td>
<td>–3.7</td>
<td>–3.6</td>
<td>–7.0</td>
<td></td>
</tr>
<tr>
<td>Estoniaa</td>
<td>–9.2</td>
<td>–15.0</td>
<td>–16.1</td>
<td>–15.3</td>
</tr>
<tr>
<td>Lithuaniaa</td>
<td>–1.5</td>
<td>–13.1</td>
<td>–19.7</td>
<td>–14.2</td>
</tr>
<tr>
<td>Latviaa</td>
<td>–10.7</td>
<td>–18.6</td>
<td>–17.4</td>
<td></td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td>2.7</td>
<td>1.5</td>
<td>1.3</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Table 2 shows that in the consecutive quarters of the analysed period Poland was the only country, out of the 27 EU states, which reported an economic growth, i.e. a positive value of the GDP index in all the four quarters. According to the Central Statistical Office (GUS), the GDP in Q4 2009, seasonally adjusted (at fixed prices with the reference year of 2000) increased, in real terms, by 1.2%, compared to the previous quarter. This may serve as the evidence that the Polish economy did quite well at that time, the crisis in Poland was not as deep and still continues to be less severe than in other countries all over the world, e.g. Greece. According to the reports issued by the Ministry of Economy “the financial crisis revealed, in particular, the shortcomings of the systems of financial supervision in numerous countries, confirming, at the same time, the rightness of the Polish regulations. (...) As a result, in 2009 Poland was the fastest-developing country in Europe.”

Business risk versus the economic crisis: a case of the construction industry and the real-estate market

A global increase in business risk occurs during economic slumps (financial crises), and this risk at a single company level should always be considered in the areas of operational, investment and financial activities. In particular, during economic crises, the causes and effects of the risk become deeper and more severe. Due to the recent crisis, many companies in Poland are facing serious financial problems. In the Polish construction industry, for instance, a lot of builders have found themselves on the verge of bankruptcy due to insolvencies of investors (mainly developers) and their business partners. Based on the data from the Polish construction entrepreneurs, we can now see some amplification of the crisis-related phenomena in construction companies and a general increase in business risk in the construction industry. Investing in shares of construction companies is also very risky. Moreover, a higher risk of a construction company’s business activities results in

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a drop in the company’s goodwill, and vice versa. Investments in the developers business have also become quite risky in Poland. The situation of Polish developers and construction and assembly companies is best illustrated by the values of the stock exchange indices of WIG-Developers (WIG-Developerzy) and WIG-Construction (WIG-Budownictwo). In the times of the crisis, there is also an increasing uncertainty, experienced by numerous entities (participants) on the investment and construction market and currently no one in Poland is able to make accurate predictions about the length of the economic crisis. The entities are not able to predict their own situation in the future. The future is uncertain by nature; and risk is a consequence (effect) of uncertainty. Risk can also be a source of numerous crisis situations in any company. A company whose financial indicators show its bad condition and a threat to its existence in the foreseeable future, is experiencing a crisis. Therefore, in economic practice, there may be a lot of sources causing a long- or short-term crisis in a company. Only correct and effective identification of the factors (sources of risk) which

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Figure 4. Barriers to construction and assembly activities in Poland in the period of 2007 – December 2011

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cause a corporate crisis may lead to successful corporate management. This issue is directly connected with identification of the main barriers to companies’ economic activities. To illustrate this point, the selected barriers to business activities of construction and assembly companies in Poland in the period from 2007 to December 2011 are presented in Figure 4.

According to the Central Statistical Office, in December 2011 “the biggest obstacles indicated by companies were barriers connected with labour costs (57% in December 2011, 50% in the corresponding month of the previous year) and competition on the market (55% in the current month, 54% a year ago). (...) Compared to December 2010, the biggest rise was in the barriers connected with uncertainty of the general economic situation (from 29% to 43%), costs of raw materials (from 28% to 38%), high budgetary charges (from 26% to 34%) and labour costs (from 50% to 57%)”\(^{17}\). The fact that labour costs, competition and business risk grow during an economic crisis, seems somehow natural.

Both the scientific literature and the economic practice divide the sources of corporate risk into micro- and macro-economic ones\(^{18}\). There are also other divisions, e.g. risk-causing factors are divided into micro-economic, meso-economic and macro-economic ones. “The sources (factors) of risk may [also] be divided into the ones which reduce risk and the ones which increase risk, where the first group includes: an increase in national income, an increase in exports, an increase in industrial output, an increase in demand for products offered by manufacturers, a reduction in prices of energy carriers, a fall in inflation, a reduction in taxes and a wider range of investment incentives”\(^{19}\). However, “the latter group of factors include: a fall in national income, a fall in exports, a fall in industrial output, a growing negative balance of trade, an increase in state expenditure for social purposes and related systems of social benefits, an unstable economic situation (strikes, social unrest, etc.), an unstable and weak currency, a rise in inflation, an increase in unemployment, an increase in taxes”\(^{20}\). At present in Poland the greatest importance is attached to the factors, which increase the global business risk. “These factors indicate that the high uncertainty on the financial markets is still growing, and the international financial system is becoming more vulnerable to crises”\(^{21}\). For example, “in January 2010 the state budget deficit was PLN 4.8 billion, which represents 9.3% of the amount assumed in the budget act for 2010”\(^{22}\). And “(...) in the period from January to March 2010, the state revenues amounted to PLN 57.0 billion (in nominal terms, a fall by 13.2% y/y), and the expenditure was PLN 79.7 billion (in nomi-

\(^{17}\) Koniunktura..., p. 2
\(^{20}\) Ibidem, p. 142.
nal terms, a rise by 3.6% y/y)". At the same time, labour costs in Poland are lower than in many West European countries, which definitely has a positive impact on the development of the Polish construction industry and the developers business. In particular “a success of an investment is affected by the changes in economic variables, which are a source of the market risk”.

“The following ones are included: the state of the economy affects the entrepreneurs’ mood, impacts the situation on the real-estate market and its attractiveness, as perceived by investors. (...) Investors will evaluate their investments in the real-estate market by comparing alternative investment opportunities; (...) a particularly important thing, then, will be an investment value of a real estate, which is higher than the market value, and the profitability of the real estate, which is reflected by the rent value (in short-term, the rent value of the real estate depends on changes in the demand for commercial properties – the supply is relatively constant – just like the rates of return on the real estate, as they influence the risk level and an increase in the rent level); (...) low interest rates, which affect the financial costs of an investment, as well as the rate of return on the real estate; (...) an increase in the interest rates leads to a simultaneous increase in financial costs, the rate of return, a fall in the rent value of the real estate, a delay in letting of finished facilities and the prolonged project completion time; (...) the level of interest rates affects the variables (the demand for commercial properties, the rate of return level, financial costs, the project completion time) which influence the level of risk in the investment development process; (...) the level of inflation, which is a key factor when determining the construction costs”.

Conclusion

The recent economic crisis began in the US, on the subprime mortgage market and then the credit crunch evolved into a typical economic crisis. As it flared up in the financial markets, it is long-lasting and deep. In particular, “the financial crisis became acute on August 9 and 10, 2007 when the money market interest rates rose dramatically”. Initially, the crisis was accompanied by a loss of confidence on the interbank market, which resulted from a fear that banks could become insolvent. For example, due to the fall of the four Icelandic banks, Iceland’s currency depreciated. Poland is also facing a crisis right now but this crisis is not as deep and long-term as in other countries; for example, there were no bankruptcies in the banking sector. However, many experts believe that the worst is yet to come. The amplification of the crisis is best evidenced by constantly growing portfolios of debt collection companies in Poland. For example, their value in Poland amounted to approx. PLN 15 billion throughout 2010, to grow dramatically in 2011.

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23 Analiza sytuacji gospodarczej..., p. 17.
26 Ibidem.
Literature


Rynki finansowe w warunkach kryzysu, ed. M. Kalinowski, CeDeWu Sp. z o.o., Warszawa 2009.


In general, the paper deals with the economic crisis in Poland. It outlines its origin, evolution and consequences. In particular, it presents the selected results obtained by the Polish economy in the period from Q4 2008 to Q4 2009. The author also addresses the current problems faced by the Polish economy in 2011. The aim of the paper is to discuss the basic issues related to these problems. Taking the Polish construction industry and the real-estate market as the examples, the author attempts to explain the importance of business risk and its growth during the global economic crisis, focusing on a rise in risks and uncertainty in the construction sector and the real-estate market.