Chapter 9
The Financial Crisis Phenomenon and the 2008 Global Finance Crisis

Hande Çan and Meltem Okur Dinçsoy

Abstract One of the most important developments which adversely affect economies in the globalized world is the financial crises, such as money crisis, banking crises, external debt crises, and systemic financial crises, arising due to various reasons. The reasons of crises can be also listed as unsustainable macroeconomic structure, asymmetric information, moral hazard, financial liberalization, herd psychology, and pandemics. The financial crises emerging in the period in which financial integration formed after 1990, turned into a structure engulfing all economies in waves by coming to a state of structure whose violence and impact area expand rapidly. The 2008 crisis, an important example of financial crisis, which started in mortgage industry in the USA and spread rapidly to the global economy. Also, unlike the previously known classical banking crises, the inclusion of large-volume derivative products in this crisis and the problems related to derivative products spread very rapidly to other parts of the world during the 2008 Global Crisis. The credit rating agencies received criticism in the 2008 Crisis as received in the 1997 Asian Crisis. In particular, the financing of these institutions by banks and other financial institutions reduces the possibility of objective evaluation. They did not take into account the market risk and liquidity risk for the investors trading in the secondary market during the rating process. In addition, the rapid increase in notes and the high amount of payments to be made within the scope of CDO increased the liquidity crisis. As a result, financial liberalization, macroeconomic instability, and weak financial structure under the globalized world make the economies more vulnerable, sensitive and/or insecure to financial crises.

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9.1 Introduction

One of the most important developments which adversely affect economies in the globalized world is the financial crises arising due to various reasons. The crisis that emerged in an economy due to globalization leads to globalization of crises by reflecting to the economies of other countries. The financial crises emerging in the period in which financial integration formed after 1990, turned into a structure engulfing all economies in waves by coming to a state of structure whose violence and impact area expand rapidly. Therefore, in the study, the concept of financial crisis and the types of financial crisis in the literature were defined and the factors causing these crises and the models of financial crises were emphasized. In addition, the concept of financial stability and the tools used by central banks to ensure financial stability were evaluated. The reasons for the emergence of the 2008 crisis, an important example of financial crisis, which started in mortgage industry in the USA and spread rapidly to the global economy, and the effects of this crisis period were also examined.

9.2 Financial Crisis Phenomenon

9.2.1 Types of Financial Crisis

That the markets do not operate, are locked up or cause large fluctuations by becoming over-sensitive are situations which lead to crisis. For this reason, the crisis is the name given to a certain moment of capitalist development dominated by the market mechanism (Eroğlu and Albeni 2002, p. 97). Crisis is a situation in which the events that suddenly and unexpectedly occur in the economy create negative consequences for the country's economy in terms of macroeconomic and for the firms in terms of microeconomic. The financial crisis is a serious economic problem due to the severe price fluctuations in financial markets such as foreign exchange and equity markets or the excessive increase in non-performing loans in the banking system.

Crises that occur as fluctuations in prices or quantities initiate as a result of speculative attacks and exacerbate by the intensity of these attacks. The losses caused by the financial crises are the output losses stemmed from crises and the financial losses which are occurred to recover the fragile financial sector. Financial crises are divided into four groups as money crisis, banking crisis, external debt crises and systemic financial crises (Kibritçioğlu 2001, p. 176).

Money crisis is defined as "*the fact that speculative funds start to leave the country due to the loss of trust in currency of a country and despite the all supporting efforts of the Central Bank, the national currency fall in value or left to fluctuation entirely since*

current exchange rate cannot be sustained" (Seyidoğlu 2009, p. 560). The statement "money crisis" is used in the same meaning with the foreign currency crisis in the literature, and determinants of this crisis can be listed as follows (Kibritçioğlu 2001, pp. 2–3);

- Weakening of macroeconomic indicators and erroneous economic policy practices,
- Moral hazard and asymmetric information problems,
- False feelings and expectations of creditors and international organizations in the market,
- Inadequacy of financial infrastructure,
- The unexpected events and coincidences.

A high rate of increase in domestic interest rates and foreign currency, a significant decline in economic growth and a great recession in the economy can be counted as three major consequences of the currency crisis. As a result of these; money crisis causes an international financial capital outflow from the country and may turn into a severe crisis and cause the financial and real market to collapse. In addition, it may cause the banking crisis or the external debt crisis and may turn into a twin crisis.

Money crises have been tried to be determined with devaluations. For instance, according to Frankel and Rose, if there is exchange rate depreciation at the rate of 25% in a country within a year and if this depreciation is more than %10 in accordance with the previous year, a money crisis occurs (Özer 1999, p. 33). Money crises are divided into two as balance of payments and exchange rate crises. The money crises are named as exchange rate crisis, in order to draw attention to exchange rate changes in the countries implementing the flexible exchange rate system. While in the countries which implement fixed exchange rate, the decrease in the foreign exchange reserves causes the monetary crises to be called the balance of payments crises. The most important factor in the money crises which have been experienced in the developing countries after 1990 is the capital account crises resulted from high capital mobility. Reversal of capital flows can initiate monetary crises and cause decrease in current account deficits due to the depletion of external financing resources. The two major reasons for capital account crises are the high capital inflows and the high rate short-term loans within the capital. These two situations generate twin crisis by leading to money and banking crises (Delice 2003, p. 60).

The banking crises occur in the cases where bank deposits have actual or potential withdrawals, and where banks go bankrupt or postpone their liabilities. In other words, they emerge in cases where it is not possible to extend the maturity of the commercial banks to pay their debts or they cannot meet the demand for sudden withdrawal in the context of demand deposits. Moreover, banking crises last longer than money crises and affect economic activities much more negatively (IMF 2002, p. 6).

The reasons for the emergence of banking crises that have been started to increase since the mid-1980s (Doğan 2009, p. 27): They occur;

- In case of the failures and bankruptcies of bank,
- In case of the depositors withdraw their money from banks due to fears that their deposits will not be repaid,
- In case where governments intervene banking sector in the way that recovery and expropriation,
- In case there is an increase in the risk regarding non-repayment of loans in the banking sector.

External debt crises are defined as the state of a country's inability to pay external debts belonging to public and private sectors. The emergence reasons is that country become hard up for the foreign debt rollover and finding new loan, and hence the association of external debt to the new payment plans (Delice 2003, p. 61).

The most important reason increasing the external debt crisis is that countries are insufficient in external debt management. In the event that the debtor cannot pay its debts or that debts cannot be repaid, new loans are not given and loans are tried to be taken back, and this causes external debt crises. In addition, a decrease in private capital inflows can also lead to monetary crises (IMF 2002, p. 6).

Characteristics of external debt crises (Çalışkan 2003, p. 226);

- Delay in the repayment of external debts may be a temporary process. However, this situation is perceived as "crisis" in terms of creditors.
- The country may attempt to not to repay its debts.
- This type of crisis initiates with the declaration of the debtor country.
- Only the creditors of a country falling under the external debt crisis are adversely affected from this situation.

As in the recent Asian crisis and the Mexican crisis of 1994–95, money, banking and debt crises can emerge at the same time. While the 1992–93 ERM (European Exchange Rate Mechanism) crisis was basically a currency crisis, the banking crisis was experienced before the money crisis in the crisis period that occurred in our country in 1994 (Özer 1999, p. 39).

Systemic financial crises are the crisis that arises in the financial system, disrupts important functions such as asset valuation, loan allocation and payments, and also leaves a negative impact on the real economy (Marshall 1998, p. 13). It is a type of crisis, which includes money and banking crises.

The causes of systemic financial crises arise in the way that liquidity problem, debt increases, moral hazard caused by the deposit insurance system, the cautiousness of intermediaries against the markets due to the excess of asymmetric information, the failure of the central bank to provide liquidity, the unforeseen shocks outside the financial sector and bank bankruptcies.

9.2.2 Financial Crisis Reasons

There are many factors that lead to financial crises and economic instability. Different policies in way of cautionary and preventive are implemented against the effects that disrupt the macroeconomic stability of the countries. Reasons of crises can be listed as unsustainable macroeconomic structure, asymmetric information, adverse selection and corruption of moral structure, financial liberalization, and herd psychology.

The unsustainable macroeconomic structure; over-expansionary monetary and fiscal policies lead to an increase in the volume of credit used and thus to the speculative increase in the amount of debt and real estate investments. As a result of expansionary policies, the implementation of tight monetary and fiscal policies in order to control the rising inflation and to correct the asset prices and external balance cause the economic activities to slow down, the borrowings received not to be used effectively and the difficulty in repayment of debts (Özer 1999, p. 45).

Macroeconomic instability is the most important cause of imbalances in the banking sector. The instability affects the macroeconomic variables such as GNP and growth rates by weakening the financial system and causes the financial markets to become unstable. Macroeconomic effects of the financial crisis emerge as the rise in interest rates, the slowdown in credit volume, the decrease in spending and demand, the increase in emissions and the decrease in production, employment, savings and investments.

In the years following 1990, developing countries have ensured their growths depending on external resources together with the globalization. Thus, the monetary and fiscal policies which are implemented independently by the countries disappear. Countries can control only one of interest, capital or exchange rate due to the uncompromising triad (Eren and Süslü 2001, p. 664).

Many countries are now implementing the policy which release interest by controlling the exchange rate. This allows the hot monetary policy to be implemented. Since the countries solve the financing problem with short-term capital movements, foreign capital that is inflow to country in uncontrolled way causes financial crises. Because, capital inflows increase the national money supply by creating “balloon effect” in the economy, and the national currency is over-valued, and imports increase and exports decrease as a result.

Aside from domestic macroeconomic conditions, the importance of external factors is also significant in the crises occurring in emerging markets. The most important external factors are major changes in world interest rates and terms of trade. Sudden price decreases in export goods cause domestic firms to have difficulty in debt payment and to decrease the credit portfolio quality of banks. Moreover, the decrease in interest rates causes funds to flow to emerging markets and leads them to benefit from capital flows. The increase in interest rates leads to a decrease in the flow of funds to emerging markets. Thus, it makes the financial system be fragile by increasing the costs of banks and firms in these countries, and creating many problems such as selection and moral hazard (Özer 1999, p. 46).

Asymmetric Information, Adverse Selection and Corruption of Moral Structure: According to Mishkin's asymmetric information theory, it is a disruption in financial markets due to the fact that financial crises, adverse selection and moral hazard problems progress and the funds shift to investments that have low productivity (Mıshkın 1996, p. 39).

The effective functioning of financial markets is attributed to market actors having the same market information. In case that the information that the parties have is different in the financial contract, the problem of asymmetric information arises. The borrower is more advantageous than the lender in terms of asymmetric information, because, the borrower has much more information about the investment project than the lender. This in turn causes the lender to encounter to uncertainty about the reliability of the debtor (Şen 2006, pp. 1–2). Thus, asymmetric information leads to two types of problems: adverse selection and moral hazard.

Adverse selection is the problem where one of the sides of any selection may cause negative consequences for the other sides or cause the counterparty to fall in risk and harm. This is known as the classical "lemon problem of Akerlof". The fact that the borrower or investors who have low repayment ability in the fund markets expel qualified and moral investors from the market is likened to the example of Akerlof's the discarding good automobiles of the market by bad automobiles in the second-hand car market. This relationship, which is generally encountered between banks and customer portfolios and the difficulty in determining whether the selections will cause a de facto damage to the banks decrease the elasticity of banks in charging different interest rates and force them to charge high interest rates. The increase in borrowing cost due to high interest rates is followed the increase in the sunken credit, and this causes increase in the fragility (Yay et al. 2004, p. 105).

The moral hazard problems are the problems that arise after the lending process. That the debtor is involved in the activities which will reduce the possibility of repayment of the funds borrowed and make the repayment risky and that the lender refuses to lend to the borrower by learning these situations before the lending process are moral hazard problems (Mıshkın 1996, p. 41).

Moral hazard is the product of the belief of financial institutions that they will be saved in any case. This term is used for situations where the person who will be at risk has to decide how much the risk that will be taken if someone else will pay the price when things go bad (Parasız 2001, p. 49). The problem of moral hazard increases since the deposit owners do not monitor the deposits in the opinion that the banks are in the security of state and do not have any anxiety regarding this. As a result, banks support the risky projects under state guarantee and put the economy into a general crisis.

Financial liberalization: Between the 1980 and 1990 period, countries have brought many innovations such as the releasing of interest rates and abolition of credit ceilings, the opening of the banking sector to foreigners as well as to the public, the liberalization of capital movements and the reduction or abolition of the reserve requirements for banks in order to liberalize their economic systems. These policies are called as financial liberalization policies.

The rapid liberalization that started in capital movements was one of the reasons of the financial crises experienced in the 1990s (Yeldan 2001, p. 23). In a developing economy, liberalization of finance without providing the necessary macroeconomic conditions such as price stability, fair income distribution, supervised banking, equivalent budget, high value added goods production, economic structure to realize real growth, creates a situation that is more detrimental rather than good.

The reasons of the negative consequences of financial liberalization (Kazgan 2001, p. 231):

- In order for the system to function smoothly, new financial institutions and tools are needed. However, these are time-consuming situations and make monitoring the financial flow be difficult.
- Companies whose main objectives are to make money by speculative transactions have increased in recent years and the fund market has been transformed into speculative swamps.
- The presence of speculators in the market causes that there is an increase in expectations about high profitability, real interest rates are higher in domestic markets compared to foreign markets and the behaviors expected to be rationally, transforms into herd psychology.

Herd psychology is based on two reasons. The first of these is "Bandwagon Effect". This effect is defined as the reason for demanding a good or service is the thought that property is bought by others and it is should require not to be fallen behind them. That is, the demand of property for the purpose of conforming to the society. The second reason is that money is mostly directed by the finance managers in the countries that are at risk of crisis, and that these managers behave as managers of other Institutions, cause herd psychology.

High cost of having asymmetric information causes portfolio managers to act with limited or incorrect information in the market. Thus, this situation together with herd psychology causes the behavior of an investor to be monitored by other investors (Kansu 2004, p. 80). Similarly, Latin American crises are not only related with economic indicators, but also related with herd psychology. The herd psychology that occurs in the market also causes speculative attacks.

9.2.3 Financial Crisis Models

Three types of crisis models were mentioned regarding financial crises. These models are the first-generation crisis models introduced by Paul Krugman in 1979, the second-generation crisis models first developed by Obstfeld, and the third-generation crisis models based on Krugman's "moral risk" and "speculative attack" approaches of Radelet and Sachs. These models are not interchangeable but the complementary models.

First-Generation Crisis Models: These models which were put forth by Krugman in 1979 based on the study of Salant and Henderson in 1978 and were developed by Flood and Garber, emphasize the importance of macroeconomic indicators causing the crisis. These models are also called canonical models. According to the first-generation crisis models, it is suggested that financial crises arise due to the imbalances in the economy and inconsistencies in the fixed exchange rate (Krugman 2000, p. 2).

There are many macroeconomic indicators such as interest rates, increase in domestic credit volume and inflation rates, public expenditures, current accounts and deficit in foreign trade balance, monetary expansion, real exchange rate appreciation and decrease in foreign exchange reserves which are proposed by the first-generation models to predict financial crises.

According to this model developed by Krugman, while the fixed exchange rate system is valid, that domestic credit volume increases more than the money demand, leads to continuous decrease in the international reserves of the country and the speculative attacks against the national currency (Kaminsky et al. 1997, p. 5). The starting time of these speculative attacks depends on the level of reserves.

First-generation crisis models were developed in 1973 and 1982 period to explain the money crises in Mexico and other Latin American countries. According to this model, the budget deficit is financed by domestic borrowing or emissions. Financing by means of the increase in money supply causes inflation, capital outflow and expectations to be negatively affected and thus leads to deficit in the balance of payments. By using the money authority reserves which insist on maintaining the fixed exchange rate, the deficit in balance of payments is met. However, due to the limited reserves, it is not insisted on the fixed exchange rate so much. In this case, the currency is devalued or left to fluctuate (Karaçor and Alptekin 2006, p. 238).

The model has been criticized for assuming that it is overly mechanical and one dimensional, that states monetize budget deficits and that the Central Bank suppresses the exchange rate by selling reserves without looking at economic developments. In these models, it is emphasized that the future expectations of the economic agents have no effect on the imbalances in economic activities and the credit policies (Yay 2001, p. 1235).

The other criticism toward this model is that the money crises are only based on budget deficit and foreign exchange reserves. The first-generation crisis models are unable to explain the European Monetary Mechanism (ERM) crisis and the 1997 Asian crisis, despite it can explain the 1994 crisis in Mexico. The first-generation crisis models are important because they pioneer other models and provide the idea of creating new models.

Second-Generation Crisis Models: Since the 1992 ERM crisis and the Latin American crises in 1994 could not be explained by the First-Generation Crisis modeling, second generation financial crisis models emerged as a new crisis model. Obsfeld found the Second-Generation Financial Crisis (Self-Feeding Speculative Attack) by developing the study of Kurgman.

Political preferences, expectations and indicators regarding spread of crises are used more frequently in the second-generation financial crisis models. In addition to these indicators, deterioration in current accounts balance, short-term debt amount, decrease in industrial production, differentiation in stock prices, difference in foreign interest, and increase in inflation and deterioration in the terms of trade can be counted as other indicators.

This model emerges due to the self-feeding of expectations, transmission and multiple balances. Self-feeding expectations: if a speculator attacks, the result varies according to the behaviors of other speculators. The transmission means that the crisis that starts in a region or country affects another region or country which is economically related. Multiple-equilibrium emerges in the case where market participants are able to change the current policy with a successful speculative attack, although there is no doubt about the sustainability of the fixed exchange rate policy.

The second-generation models consider collapsing of the fixed exchange rate system as a political choice, not as a result of the economic process. In other words, according to the second generation financial crisis models, the devaluation decision depends on whether the benefit of maintaining the fixed exchange rate regime is higher than the cost in terms of state. Although the cost of maintaining this practice is high, maintaining fixed exchange rate implementation by state reduces the confidence of the private sector and increases the likelihood of devaluation (Bastı 2006, p. 12).

Devaluation expectation causes deterioration in macroeconomic indicators by increasing interest rates and wages and increases the cost of maintaining a fixed exchange rate regime. The increase in costs further increases the devaluation expectations, and this situation continues until the beginning of speculative attack and causes crises.

The first- and second-generation crisis models remain inadequate for the East Asian crisis experienced in 1997. Because, the reason of Asian crisis was not the fixed exchange rate system in the financing of budget deficits and the inconsistency or the negativities in the macroeconomic indicators, instead the reason is that the speculators would abandon the fixed exchange rate system. And thus the third-generation models were needed to explain the Asian crisis (Kansu 2004, p. 119).

Third-Generation Financial Crises: They were emphasized by S. Radelet and J. Sachs and developed by R. Chang and A. Vélasco. This model emphasizes that the crises emerge as a result of self-feeding financial panics. The transmission of the crisis is at the forefront in the third generation financial crisis models. The crisis in one country affects the macroeconomic variables of another country or the expectations of speculators.

In the third-generation models, crises are explained by asymmetric information and transmission based on the moral hazard problems or by maturity-currency mismatch. The moral hazard emerges because of the lack of symmetrical distribution of information in the economic sector, and as a result of this it leads to the emergence of asymmetric information problems since the imperfect information causes wrong decision to be taken.

Cash incompatibility and negative external shocks change the expectations of domestic banks and foreign creditors. The loss of confidence changes expectations and causes non-renewal or recall of the due foreign loans and thus leads to the capital crisis. In this case, speculative attacks against domestic currency start to realize and the current maturity and liquidity mismatch in balance sheets of banks increases. As a result of all this, banking and money crisis occur simultaneously and cause twin crises.

The problem based on moral hazard was experienced during Asian Crisis because financial institutions had not adequate audit and supervision since they were under state guarantee. That the debts are in excessive risk causes inflation by increasing asset prices. The continuation of lending causes the asset prices to increase more and the balloon to explode by swelling in excess. The crisis that is experienced causes a decrease in asset prices and leads to bankruptcies, and banking crises lead to monetary crises (Krugman 2000, p. 3).

9.2.4 Central Banks and Financial Stability

Financial stability is determined as an intermediate target in the policies implemented toward development and growth in the financial system. Three important conditions must be realized in order for the financial system to be stable and effective. The first one of these is that the important corporate intermediaries carry out transaction as effective and prudent, the second is the openness and transparency of the markets in which these intermediaries operate, and the third condition is that the infrastructure in which financial transactions are performed should be sound and understandable (Delice 2007, pp. 86–88).

Financial stability, institutions and markets can be defined differently. Financial institutions define stability as low external intervention and continuity of agreements and practices. This is also a sign of confidence for them. Markets are defined as the fact that each participant in the markets performs their transactions easily over prices generating in the market (Crockett 1997, p. 13).

Since financial stability is a public property, the benefit of those who consume this public property should not adversely affect other consumers. Therefore, the authorities head toward the issue regarding the being offered in the appropriate amount. Relevant institutions intervene in financial systems and markets, develop policies and bring regulations to ensure financial stability. However, since the financial system is in structure which generates instable and has a tendency to spread this instability, the public sphere is also responsible for ensuring financial stability, because these instabilities cause financial crises. A stable financial system is not a system that does not have any risk and which grows up in free from the transmission and spreading effects, instead it is a system which is able to recover itself quickly against transmission by effective risk management.

Financial stability is the sustainability of the confidence against money supplied by the central bank. Central banks have a monopolistic power over the country's

currency and the purpose of the establishments of them is to provide price stability. While the central bank was adopted in Europe in the nineteenth century, the process in the United States lasted longer and began in 1913 with the establishment of the Federal Reserve Bank (FED). The responsibility for financial stability disappeared with the financial liberalization period following the Bretton Woods system (Özcan 2006, p. 15).

The financial stability approach which was adopted after the Bretton Woods period considered price stability as the only target, because the most important problem in financial stability is price stability. When the price stability target is reached, it is thought that financial stability will be achieved by itself. However, price stability itself causes financial instability. And the fact that long-term price stability creates balloons in asset prices is considered as a reason of the crises experienced in the twenty-first century (Borio et al. 2001, p. 49). For example, one of the reasons of the emergence of the 2008 crisis is that the central banks of developed countries focused on price stability and did not take financial stability into account. As a result of the financial crises, many countries have taken into account price stability as well as financial stability and the responsibility of central banks has increased. In addition, it is of great importance that it is the banker's bank and the last credit authority in terms of markets.

The tools used by central banks to ensure financial stability are targeted activity, general activity and information activity tools. Targeted activity tools focus on institutions and cover banking supervision, legal activities, reorganization of capital structure of institutions and deposit insurance regulations. General activity tools involve open market operations, exchange rate interventions and payment system activities by being interested in the entire economy. Information activity tools involve monitoring of markets, international cooperation and cooperation with intermediary institutions and communication with public by focusing on the process of knowledge transferring.

Financial stability is a broad concept that covers different areas of the financial system (infrastructure, institutions and markets). Stability requires not only the allocation of resources and risks by evoking savings and facilitating wealth savings, development and growth, but also the smooth functioning of payment systems in the entire economy. It is not only enough that the crisis does not exist in order to achieve financial stability; at the same time, financial imbalances should be limited and controlled without harming itself and economic processes, and system should recover itself quickly in case of the transmission (Schinasi 2004, p. 7).

The macroeconomic and financial situation examined in terms of ensuring and maintaining financial stability is shown in Fig. 9.1. First, the financial system is in stability and is considered to remain so, in this case, it is aimed to maintain stability. Secondly, the financial system is in the stabilizing corridor but may approach the border of the corridor due to imbalances that begin to emerge. In such a case, corrective action is necessary for stability. Third, the financial system may be unstable. In this case, policies should be reactive and it should be aimed to provide stability by coming up solution for the crisis (Houben et al. 2004, p. 16). One of the most important elements in ensuring financial stability is to ensure the stability in the banking

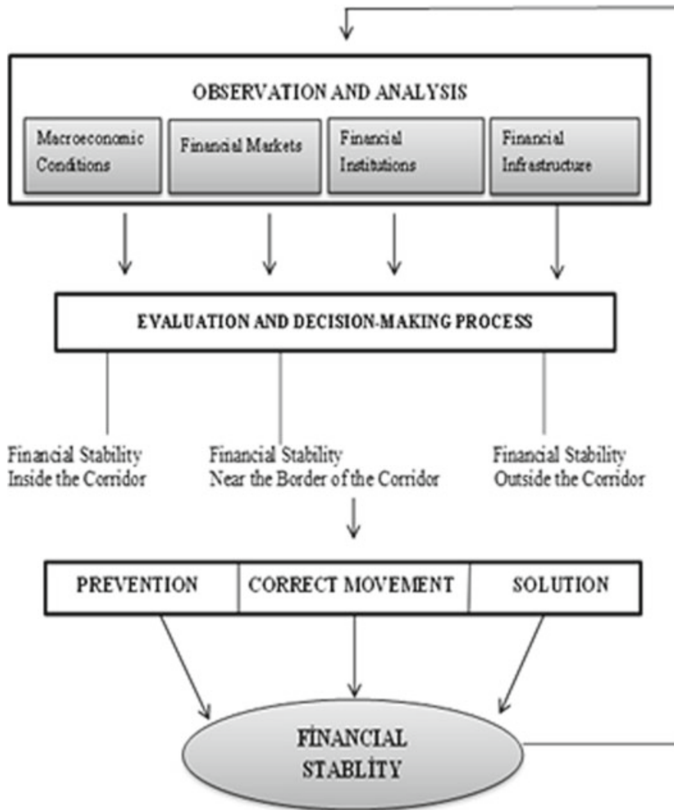

Fig. 9.1 Financial stability and its process. *Source* Houben et al. (2004)

sector, because the condition that the liabilities of banks are paid on demand causes the assets of banks to be less liquid than their liabilities. This imbalance results in the failure of banks to meet their liabilities (Özer 1999, p. 169).

Financial instability arises from the imbalances both in the balance of payments and in domestic corporate developments. While institutional instability arises when the failures of one or more financial institutions spread and lead to significant economic losses the market instability arises when extreme fluctuations in asset prices generate transmitted negativities in the economy.

The risks faced by financial stability are divided into two as internal and external risk sources. When we examine the risks internally, firstly, the risk may develop within financial institutions and problems firstly arise in a single institution and then spread to other institutions. Traditional financial crises arise from problems stemming from credit, market, liquidity, interest rates and foreign exchange. However, business risk, information technology weakness, risk of financial integrity, reputation risk, business strategy risk, concentration risk and capital adequacy risk cause institution-based risks. Other internal risk sources emerge as market and infrastructure-based

weaknesses. Lastly, weaknesses may be external, that is, they may arise from a risk other than the financial system. For example, macroeconomic problems stemming from oil shocks, technological innovation and policy imbalances may emerge, and failure emerging in a large company can create imbalances that affect the entire financial system. In addition, political events such as terrorism and wars and natural disasters are also considered as events that generate external risks (Houben et al. 2004, p. 19).

The increase in such financial risks generates a reduction in credit volume and credit return opportunities, and the central bank tries to regulate the credit market by transferring active funds to the market. Thus, it contributes to the activation of credit facilities, the introduction of new institutions which become indebted to the market and the increase of credit supply (Sezgin and Darıcı 2009, p. 24).

In traditional inflation targeting, central banks aim at the inflation rate consistent with the target and use the short-term interest rate as a single tool (Kara 2012, p. 6). However, the rapid and temporary change of short-term interest rates to ensure price stability increases economic failures. As a result of this situation, the banking system causes problems in asset quality due to failures experienced in economic life, and decrease in the amount of credit that is provided by the sector to the economy.

The main objective of the central banks in implementing the monetary policy is to ensure using the relevant tools of sustainable growth. Fight against inflation emerges as an important issue, and it is necessary to correctly adjust the extent to which the implementation of the contractionary or expansionary monetary policy. The level of adjustment depends on the targeted and expected dimensions regarding growth and inflation.

9.3 Global Financial Crisis and Reasons for Emergence of the Crisis

The crisis that emerged in the housing sector in the US in 2007 and that was considered as one of the biggest crises in the world financial history. It first affected the US financial system and then the economies of other countries negatively by spreading in waves to all over the world. It is the first financial crisis of the twenty-first century experienced globally (Kutlu and Demirci 2011, p. 122). It is also the biggest real estate and credit bubble of history at the root of the crisis and it can be defined as a crisis type which was generated by the transactions based on credit, not on the credit itself (Öztürk and Gövdere 2010, p. 385).

In the 2000s, the profit rates of non-financial sectors in the US increased and the profits obtained from the industrial sector decreased due to the incomes obtained from non-operating financial speculations by real sector companies. The financial bulge generated by the importance of speculative incomes became an instability factor for the system, and the 2008 crisis emerged as a product of this instability (Sönmez 2009, p. 24).

Due to the explosion of the balloons of high-tech companies in the United States in 2000 and because of the September 11, 2001 attack, and due to the economic recession experienced in 2001 and 2002, the FED began to cut interest rates. After 2001, the rapidly lowered interest rates with the aim of picking up the US economy increased the demand for credit usage and the increase in the volume of loans increased the real estate prices. The houses which were bought were mortgaged by banks against the risk of non-repayment of the loan (Arıkan 2008, p. 40).

First of all, mortgage loans were given to high quality customers and these loans were called as "prime mortgage loans". However, in 2002, in order to stimulate both the construction sector and the economy, the loans were also given to customers who had lower-income by making legal arrangements to facilitate them to become homeowners, and these were called as "subprime mortgage loans". The decrease in interest rates increased housing purchases and housing loans attracted great attention of ones who had low income. The lenders began to give more mortgage loans due to the high profit. The volume of subprime loans in the US reached up to $1.5 trillion in the middle of 2008 (Eğilmez 2011, p. 66). It is paved the way for the use of risky loans together with the use of mortgage loans over repayment ability or without having job guarantee by consumers using "subprime mortgage loans".

That mortgage market developed rapidly in the US and gained international dimension, increased the house prices rapidly between 2001 and 2005, but this increase slowed down in 2006. Since the second half of 2006, FED started to increase the interest rate with the idea that inflation would increase. The increase in interest rates led to lower housing prices and rental income below the market level, and low-income groups using loans became unable to repay their loans. The decrease in housing prices made consumers unable to pay their debts even if they sell their homes. When credit institutions began to confiscate their homes, many families who could not pay their credit debt remained homeless. That the credit institutions tried to sell these confiscated houses and convert them into cash, further increased the decline in house prices.

As a result, the main cause of the crisis emerging in mortgage banking and the entire financial sector in the US is that the long-lasting rise in house prices has stopped and started to decline rapidly. Two giant mortgage banks, Freddie Mac, and Fannie Mae's went bankrupt in September 2008, revealed that the problem should be evaluated as a serious mortgage crisis and bankruptcy rather than a deficit of liquidity. In this case, the US government and the FED invested capital in these banks and provided $200 billion to save them by nationalizing these two giant mortgage banks at the rate of 80% (Hiç 2009, p. 5).

On September 15, 2009, state aid could not be provided to Lehman Brothers, the oldest and most prestigious investment bank in the United States, as no insurance was provided above the legal limits. When other banks refused to buy, Lehman Brothers went bankrupt and the huge fall was experienced in the US stock exchange with this bankruptcy. With the bankruptcy of Lehman Brothers, which has a history of 158 years, the crisis affected the world entirely.

The most important characteristic that distinguishes the 2008 crisis from the previous crises is that complex and high-volume derivative products, unlike classical banking crises, took place on the basis of these problems and that the problems related to these products spread rapidly in the globalized world. This situation caused the fear and uncertainty in financial markets to create a global panic environment in a short time (Bocutoğlu and Ekinci 2009, p. 67). While the world economy grew at the rate of 5% in 2006, this rate decreased to 3% in 2008. In other words, the global economic crisis caused a contraction in production in the world economy. While the growth rate of developed economies remained below the world average due to the fact that it affected the developed countries more, developing Russia, India and China were the most growing economies after 2005. Additionally, declines in exports and imports caused the contraction in world trade volume. World trade grew by 9.3% in 2006, declined to 7.2% in 2007 and to 2.6% in 2008. The inflation rate increased in both developed and developing countries (Yıldırım 2010, p. 54).

The reasons of this financial crisis which emerged in 2008 in the USA and affected all the world can be listed as the liquidity excess and corruption of mortgage credit structures, incompatibility of interest structure, balloon increases in housing sector, difficulty in financing of securities, expansion of credit derivative markets and problems in credit rating process. Now let us explain these reasons respectively.

9.3.1 Liquidity Excess and Degradation of Mortgage Loan Structures

The liquidity in the financial market has increased continuously during the period of 2000–2006. The ratio of the total money stock of the USA, Europe, Japan, China, the United Kingdom and Canada to GDP increased from 18–20% in 1980–2000 to over 26% in 2002 and about 30% in 2006–2007 (Parasız 2009, p. 49). Transferring the liquidity excess to profitable operations is one of the most important problems of the banking system. Housing loans are the main of these operations (Alantar 2009, p. 2).

This liquidity excess led to an expansion in consumer loans and an increase in housing and commodity prices. The disproportionate consumer loan growth, the encouraging a loose risk assessment process, the allowing uncontrolled growth of the international derivatives market and the financial regulations encouraging consumers to spend more than they earn, provided basis for the global crisis (Akbulut 2010, p. 51). As a result, the demand for mortgage loans and low interest rates increased, housing prices increased excessively and bubbles generated.

Interest rates increased in 2004–2006 and interest rates which were 1% in 2004 increased to 5.25% in 2006. With the intervention of the Central Bank, the housing bubble exploded and housing prices, which reached its highest level in 2006, started to decline. With the increasing risk appetite, the subprime mortgage loans, which are given to individuals without looking at their credit history caused consumers to

unable to pay the loans when the interest rates increased, and the amount of foreclosed property held by the banks increased. The re-sale of foreclosed real estates reduced prices. The fall in housing prices with the increase in interest rates, caused the debt to exceed the value of housing, and even if they sold their houses, they became unable to pay their debts (Özatay 2009, p. 106).

9.3.2 Inconsistency in Interest Structure

Due to continuance of the long-term interest rate reduction practices, the confidence of individuals against the government and interest rate cuts, increased and the expectation that this welfare will last long pushed individuals to go into debt. FED increased the interest rates which had been decreased previously in order to reduce the explosion in the demand, and the increase in interest rates increased the interest burden and the installment amounts of those using floating-rate loans.

The mortgage loans with floating-rates were used at a high rate during the period of 2000–2001 and interest rates were observed at an average of 1.5–2%. The low interest rates have increased the demand since 2004, and the rapid increase in oil and raw material prices has increased the inflation. Oil prices increased from $20 in 2002 to $130 in the first half of 2008. The interest rates started to increase again between 2004 and 2007 but the interest rates were decreased again with the beginning of the crisis (Demir et al. 2008, p. 50).

9.3.3 Bubble Increases in Housing Sector

Due to the explosion of the new technology bubble after 2000 and the rapidly falling profit rates together with the economic recession that the US economy has entered into, large amounts of idle funds have been generated in the US market. These funds were transferred to the neighboring countries through neoliberal transformation programs and were aimed at expanding the internal market in the United States for the using of idle funds. Thus, low interest rates and the increase of idle funds in the market has allowed to mortgage loans to be given to individuals who were not able to pay. For this reason, the increase in housing demand increased housing prices.

The housing prices started to decline together with the recession experienced in the real estate market in 2006. That the "floating-rate subprime mortgage loans" put pressure on the markets caused the FED to intervene in the interest rates and decrease in the short-term interest rates. The decrease in interest rates decreased the installment payments of mortgage loans, reduced the value of the secured housing but caused high losses at the end (Demir et al. 2008, p. 50). Since the economic recovery was based on the construction sector, the sudden decline in housing prices affected economic and financial indicators in a short time.

9.3.4 *Difficulty in Securities Funding*

Securitization can be defined as converting illiquid assets into securities that can be exported, and traded in capital markets. Mortgages for residential purposes, automobile loans, credit card receivables and rent payments are some of the assets (Erdönmez 2006, p. 75). Theoretically, securitization is to transfer financial risk from the institutions being less powerful to those being powerful. In the global crisis, on the contrary, the risk was transferred from strong to weak (Uslu 2009, p. 2).

While the liquidity excess was experienced in the USA between the years 2000 and 2006, individuals got further loans due to securitization. The reasons why so many loans were gotten are counted as the risk sharing, the high return appetite, the providing convenience to banks to fulfill their legal capital requirements, the new loans, given by the banks without requiring risk or excess deposits (Aslan 2008, p. 11).

The bank, which provides housing loans, sells them to a mortgage institution by securitizing the repayments of loans. Thus, a problem in the loan payments damages both the bank that provide loan facilities and the mortgage institution that buy the securities and makes the financial system be extremely fragile in case of crisis (Alantar 2009, p. 5). The crisis stemmed from not only the non-repayment of loans, but also the resell of loans in market. The securitization of subprime mortgage loans, in particular, impairs the functioning of the economic system.

The main reason of the deepening of the crisis and globalized by exceeding the limits of the United States is for securitization, because the transfer of risk is facilitated by securitization. When analyzed in Table 9.1, we see that mortgage loans and securitization rate increased in 2001–2006 period. The securitization rate, which was 60.7% in 2001, increased to 67.6% in 2006. High-risk loans were $160 billion in 2001 increased to $600 billion in 2006. That is, increased loans are risky and the securitization rate of high-risk loans increased continuously between 2001 and 2006, and the rate of 60% in 2001 increased to 80.5% in 2006.

Table 9.2, the development of securities based on mortgage was investigated, the securities in United States which were $7.210 billion in total in 2007 and have

Table 9.1 US mortgage market key indicators

Years	Mortgage loans (billion dollar)	Rate of securities (%)	High-risk loans (billion dollar)	Rate of high-risk loans (%)	Securitization rate of high-risk loans (%)
2001	2215	60.7	160	7.2	60
2002	2885	63	200	6.9	61
2003	3945	67.5	310	7.9	65.5
2004	2920	62.6	530	18.2	79.8
2005	3120	67.7	625	20.0	81.3
2006	2980	67.6	600	20.1	80.5

Source Özsoylu et al. (2010)

Table 9.2 Development of securities based mortgages

($ billion)	State-guaranteed MBS	State-guaranteed CMO	Other MBS	Total	State MBS(%)		Other MBS (%)	
					Export	Overdue	Export	Overdue
2000	2.491,7	664,1	410,0	3.565,8	−34,2	8,7	−27,3	7,9
2001	2.830,2	801,3	495,9	4.127,4	149,8	13,6	112,0	21,0
2002	3.158,3	926,0	602,1	4.686,4	36,5	11,6	21,9	21,4
2003	3.493,0	1.003,4	742,2	5.238,6	37,3	10,6	30,8	23,3
2004	3.546,2	1.024,2	885,4	5.455,8	−49,5	1,5	16,9	19,3
2005	3.681,1	1.117,1	1.118,4	5.916,6	−3,9	3,8	59,9	26,3
2006	3.966,1	1.254,1	1.284,1	6.504,3	−8,0	7,7	19,7	14,8
2007	4.545,9	1.343,5	1.320,9	7.210,3	12,9	14,6	−12,2	2,9

Source Demir et al. (2008)

increased since 2000. State-guaranteed mortgage-based financial products (MBS) reached to $4.545 billion in 2007 by having increased since 2000. In addition, collateralized mortgage liabilities (CMO) also reached to $1.343 billion. Government guaranteed securities were exported less at a rate of 49.5% compared to the previous year in 2004, but there was an increase in non-maturity securities at the rate of 1.5%. This situation continued until the end of 2006, and the government guaranteed securities issuance rate which had been negative previously, increased in 2007.

As a result, when mortgage loans started not to return, bonds could not be repaid. Financial institutions tried to dispose of risks by their securities but could not eliminate their risks and were damaged. The panic in the markets caused capital movements to slow down, withdrawal of money from banks, and generated liquidity problem.

9.3.5 Expansion of Credit Derivatives Markets

Separate financial institutions and financial instruments have been created for each function in developed countries, especially in the US economy. Problems emerge in financial markets since ordinary investors have difficulty to understand and follow the complex structure of these financial instruments. The expansion of credit derivative markets had a significant effect on the mortgage crisis. Because the lending institutions sold the housing bonds to the market by providing their receivables as collateral, and since bond returns were higher than the American Treasury bonds, it was effective that the risky and high-yield hedge funds turned to these bonds. Since banks securitized their credit receivables, the mortgage markets put the entire financial system into a fluctuation period in the face of rising interest rates.

Lending institutions provided new income opportunity with complex investment instruments such as CDO (Collateralized Debt Obligation) and the decrease in interest rates and risk premiums generated a strong leverage effect. The interest in high-leveraged funds such as hedge funds and credit products, increased in order to achieve high profit. Hedge funds, which invest more than the fund size, have higher returns as they have high risk (Parasız 2009, p. 56). The fact that the high credit rating were given to the people who had bad credit history and to the CDOs generated from mortgage loans, caused problem. The negative developments in the mortgage market decreased the total export price of the CDO market. The breakdown of the collaterals underlying the CDOs is given in Table 9.3

It is observed that the ratio of structured financing decreased and high-yield borrowing increased in crisis in accordance with the CDO Collateral distribution examined in Table 9.3. After the crisis in the mortgage market, the CDO issuances based on structured financing collaterals were 65% of total exports in 2005; it decreased to 52.4% in 2007 and to 40.4% in January 2008. While the high-yield borrowing ratio was 26.4% in 2005, it increased to 49.4% in January 2008. Bonds increased from 2005 to 2007. While the ratio was 16.7% in 2007, it showed decrease and declined to 10.2%.

Table 9.3 Distribution of CDO guarantees

(%)	2005	2006	2007	2008/1
Structured finance	65,0	56,9	52,4	40,4
High Income Borrowing	26,2	32,8	29,9	49,4
Bonds	1,5	7,4	16,7	10,2
High-sYield Bonds	1,1	0,2	0,4	0,0
Guarantees	0,0	0,0	0,0	0,0
Swaps	0,9	0,1	0,2	0,0
Other	5,3	2,6	0,3	0,0

Source Demir et al. (2008)

9.3.6 Problems in the Credit Rating Process

The rating is a scoring system that guides investors in determining the solvency of securities issuers. Companies offering rating operations to investors conduct analyzes within three stages as credit risk, cash flow and legal liability. Another factor that started in the USA, affected the whole world and caused the crisis to deepen is the problems in the credit rating process. The conflict between institutions is the most important problem for credit rating agencies. Since rating agencies are funded by banks and other financial institutions, the possibility of making objective evaluations reduces. They do not take into account market risk and liquidity risk for investors in the secondary market. As a matter of fact, liquidity risk is much more decisive in the crises which are experienced in secondary markets.

Investment banks in various countries, especially in the USA got the credit rating agencies to approve high-risk housing loans between 2004 and 2007 in order to export CDO and gain high income. These notes payables whose ratings range from AAA to BB and which provide low risk and high return are preferred by banks, hedge funds and pension funds. Three major credit rating agencies, Moody's, S&P and Fitch, were criticized as a result of the credit ratings they gave to various countries, companies and CDOs, and the rating of many investment tools, which had previously been rated as AAA, was reduced in 2008 (Yazıcı 2009, p. 8). While the same credit rating agencies gave positive ratings to the bonds, a gradual reduction occurring in their ratings caused the system to be questioned and led the prices of investment instruments to decline considerably and the billions of dollars of funds to lost value (Demir et al. 2008, p. 57). The fact that credit rating agencies decreased ratings rapidly and the payments to be made under the CDO were in high quantity, increased the liquidity crisis.

9.4 Conclusion

There have been many crises in the world economy history, but the crises in emerging market economies since the end of the 1990s have affected countries more deeply with the globalizing world. Similarly, the financial crises that emerged during the period of financial integration after 1990 have become a rapidly expanding structure of violence and influence because the crisis in a country is spreading and affecting the whole world with the global dimension of crises. In the 2008 Global Crisis, unlike the previously known classical banking crises, the inclusion of large-volume derivative products in this crisis and the problems related to derivative products spread very rapidly to other parts of the world. The credit rating agencies (Moody's, S&P and Fitch) received criticism in the 2008 Crisis as received in the 1997 Asian Crisis and in some other crises. In particular, the financing of these institutions by banks and other financial institutions reduces the possibility of objective evaluation. They did not take into account the market risk and liquidity risk for the investors trading in the secondary market during the rating process. In addition, the rapid increase in notes and the high amount of payments to be made within the scope of CDO increased the liquidity crisis.

As a result, financial liberalization, macroeconomic instability and weak financial structure under the globalized world make the economies more vulnerable, sensitive and/or insecure to financial crises.

References

Akbulut R (2010) Son Yaşanan Küresel Finansal Kriz ve Türk Finans Sektörü Üzerine Etkileri, Harran Üniversitesi İ.İ.B.F. İşletme Bölümü Muhasebe Ve Finansman ABD. Akademik Araştırmalar ve Çalışmalar Dergisi 2(2):45–68

Alantar D (2009) Küresel Finansal Kriz ve Türkiye'nin Makroekonomik Göstergelerine Etkisi. Bütçe Dünyası Dergisi 3:31

Arıkan AN (2008) Amerika Birleşik Devletlerindeki Mali Kriz ve Petrol Fiyatlarındaki Değişimler Nedenleri ve Sonuçları, T.C. Maliye Bakanlığı Strateji Geliştirme Başkanlığı, Ankara

Aslan H (2008) İpotekli Konut Finansman Sisteminde Kriz, BDDK 8. Kuruluş Yıl Dönümü Konferans Notu, Ağustos 2008

Bastı E (2006) Kriz Teorileri Çerçevesinde 2001 Türkiye Finansal Krizi: Krizin Finans Sektörünün Verimliliğine ve Etkinliğine Etkileri, Yayın No: 191/62. Sermaye Piyasası Kurulu, Ankara

Bocutoğlu E, Ekinci A (2009) Genel Teori, Küresel Krizler ve Yeniden Maliye Politikası. Karadeniz Teknik Üniversitesi I.i.b.f Maliye Dergisi 156:66–82

Borio C, Furfine C, Lowe P (2001) Procyclicality of the financial system and financial stability: issues and policy options. BIS, Paper No: 1, pp 1–57

Crockett A (1997) Why is financial stability a goal of public policy. In: Maintaining financial stability in a global economy, Federal Reserve Bank of Kansas City, pp 5–22

Çalışkan ÖV (2003) Uluslararası Finansal Krizler. Ekonomik Yaklaşım Dergisi 14(44–46):225–245

Delice G (2003) Finansal Krizler: Teorik ve Tarihsel Bir Perspektif. Erciyes Üniversitesi İ.İ.B.F. Dergisi 20:57–81 (Kayseri)

Delice G (2007) Uluslararası Finansal Kuruluşlar ve Finansal İstikrar Sorunu. Nobel Yayın Dağıtım, Ankara

Demir F, Karabıyık A, Ermişoğlu E, Küçük A (2008) ABD Mortgage Krizi. BDDK Çalışma Tebliği 3 (Ankara)
Doğan S (2009) Uzunoğlu S (ed) Güncel Ekonomik Sorunlar: Global Kriz, Küreselleşme, Finansal Kriz Olgusu ve İstikrar. Literatür Yayınları, İstanbul
Eğilmez M (2011) Küresel Finans Krizi, 8. Basım. Remzi Kitapevi, İstanbul
Erdönmez PA (2006) Aktif Menkul Kıymetleştirilmesi. Bankacılar Dergisi 57
Eren A, Süslü B (2001) Finansal Kriz Teorileri Işığında Türkiye'de Yaşanan Krizlerin Genel Bir Değerlendirilmesi. Yeni Türkiye Dergisi 41:662–674
Eroğlu Ö, Albeni M (2002) Küreselleşme Ekonomik Krizler ve Türkiye. Bilim Kitapevi Yayınları, Isparta
Hiç M (2009) Küresel Ekonomik Kriz ve Türkiye. Beykent Üniversitesi Yayınları, İstanbul, No: 62
Houben A, Jan K, Garry S (2004) Toward a framework for safeguarding financial stability. IMF Working Paper, No: 04/101
IMF (2002) Eye of the storm. Finance Dev 39(4), Aralık 2002. http://www.imf.org/external/pubs/ft/fandd/2002/12/eye.htm. Accessed 10 Oct 2014
Kaminsky G, Lizondo S, Reinhart C (1997) Leading indicators of currency crises. IMF Working Paper, 79, Temmuz 1997
Kansu A (2004) Döviz Kuru Sistemleri Döviz Krizleri Türkiye 1994 Ve 2001 Krizleri. Derin Yayınları, İstanbul
Kara H (2012) Küresel Kriz Sonrası Para Politikası, TCMB Çalışma Tebliği, No: 12/17, Haziran 2012. http://www.tcmb.gov.tr/wps/wcm/connect/5ca4f1c3-bf70-44d8-a594-662ee6866ab9/WP1217.pdf?MOD=AJPERES&CACHEID=5ca4f1c3-bf70-44d8-a594-662ee6866ab9. Accessed 19 Jan 2015.
Karaçor Z, Alptekin V (2006) Finansal Krizlerin Önceden Tahmin Yoluyla Değerlendirilmesi: Türkiye Örneği, Celal Bayar Üniversitesi Yönetim ve Ekonomi
Kazgan G (2001) Küreselleşme ve Yeni Ekonomik Düzen. Altın Kitaplar, İstanbul
Kibritçioğlu A (2001) Türkiye'de Ekonomik Krizler ve Hükümetler (1969–2001). Yeni Türkiye Dergisi 7(41) (Ankara)
Krugman P (2000) Introduction in currency crises. The University of Chicago Press, Chicago and London, pp 1–6
Kutlu HA, Demirci S (2011) Küresel Finansal Krizi (2007–?) Ortaya Çıkaran Nedenler, Krizin Etkileri, Krizden Kısmi Çıkış ve Mevcut Durum. Kafkas Üniversitesi İ.İ.B.F Muhasebe ve Finansman Dergisi 121–136
Marshall D (1998) Understanding the Asian crises: systemic risk as coordination failure, economic perspectives, Federal Reserve Bank of Chicago, 3rd Quarter, vol 13, pp 13–28
Mıshkın F (1996) Understanding financial crises: a developing country perspective. In: Annual World Bank conference on development economics, The World Bank
Özatay F (2009) Finansal Krizler ve Türkiye. Doğan Egmont Yayıncılık, İstanbul
Özcan S (2006) Para Politikası Tercihleri İle Finansal İstikrar Arasındaki İlişki, Enflasyon Hedeflemesi Politikasında Finansal İstikrar Ve Türkiye Analizi, TCMB Uzmanlık Yeterlilik Tezi, Ankara
Özer M (1999) Finansal Krizler, Piyasa Başarısızlıkları ve Finansal İstikrarı Sağlamaya Yönelik Politikalar. Anadolu Üniversitesi Yayınları, Eskişehir
Özsoylu AF, Ünlükaplan İ, Gedik MA (2010) Küresel Kriz ve Türkiye, Küresel Krizin Nedenleri, Oluşumu ve İlk Önlemler. Karahan Kitapevi, Adana
Öztürk S, Gövdere B (2010) Küresel Finansal Kriz ve Türkiye Ekonomisine Etkileri. Süleyman Demirel Üniversitesi İ.İ.B.F. Dergisi 15(1):377–397
Parasız İ (2009) Finans Krizinin Güven Krizine Dönüşmesi Küresel Kriz. Ezgi Kitapevi, Bursa, Nisan 2009
Parasız İ (2001) Para Banka ve Finansal Piyasalar. Ezgi Kitapev, Yayınları, Bursa
Schinasi GJ (2004) Global finansal stability. IMF Working Paper, No: 04/187
Seyidoğlu H (2009) Uluslararası İktisat Teori Politika ve Uygulamaları, 17. baskı. Güzem Can Yayınları, İstanbul

Sezgin O, Darıcı B (2009) Para Politikasının Finansal İstikrarı Sağlama-Sürdürme Sorumluluğu: Finansal İstikrara Yönelik Geleneksel-Spesifik Para Politikası Uygulamaları. Yönetim ve Ekonomi Araştırmaları Dergisi 11:15–28 (Bandırma)

Sönmez M (2009) 100 Soruda Küresel Kriz ve Türkiye. Alan Yayıncılık, İstanbul

Şen A (2006) Asimetrik Bilgi-Finansal Kriz İlişkisi. Dumlupınar Üniversitesi S.B.E. Dergisi 14:1–24 (Kütahya)

Uslu S (2009) Nedenleri ve Sonuçları Açısından Küresel Kriz. Köprü Fikir Dergisi 106:126–138

Yay GG (2001) 1990'lı Yıllardaki Finansal Krizler ve Türkiye Krizi, Yeni Türkiye Dergisi. Ekonomik Kriz Özel Sayısı 42:1234–1248

Yay T, Yay G, Ensar Y (2004) Finansal Krizler, Finansal Regülâsyon Ve Türkiye. İstanbul Üniversitesi Siyasal Bilgiler Dergisi 30:101–130

Yazıcı M (2009) Kredi Derecelendirme Kuruluşlarının Önemi ve Denetimi. http://www.finanskulup.org.tr/Assets/maliyefinans/82/Mehmet_Yazici_Kredi_Derecelendirme_Kuruluslarinin_Onemi_ve_Denetimi.pdf. Accessed 14 Jan 2015

Yeldan E (2001) Türkiye Ekonomisinde 2000–2001 Krizinin Yapısal Kaynakları Üzerine. Doğu-Batı Dergisi 4(17):87–91

Yıldırım S (2010) 2008 Yılı Küresel Ekonomi Krizinin Dünya ve Türkiye Ekonomisine Etkileri. Karamanoğlu Mehmetbey Üniversitesi Sosyal Ve Ekonomik Araştırmalar Dergisi 12(18):47–55

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