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# An Evaluation of Credit Rating Agencies, Credit Ratings, and Credit Default Swaps

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## ABSTRACT

Investors face different risks in international markets than in national ones. Effective risk management can help protect investors from these risks in global markets. Various indicators and financial instruments are utilized in risk management. Credit rating agencies assess the risk level of institutions or organizations in global markets and provide information to global investors. Credit rating agencies evaluate institutions or organizations by assigning credit ratings. Credit default swaps (CDS) have recently become popular hedging instruments. Credit ratings and CDS premiums are essential sources of data used to assess the risk of an institution or organization. Credit ratings indicate the investment grade of countries. CDS premiums are contracts entered into by creditors to protect themselves in the event of a borrower's default. It is argued that sovereign credit ratings and CDS premiums were misleading during the 2008 economic crisis, after which the reliability and validity of credit ratings and CDS premiums became a subject of debate. This study examined the relationship between credit ratings and CDS premiums and assessed the functionality of the system on critics.

**Keywords:** Credit Rating Agencies, Credit Ratings, Credit Default Swaps, Financial Risk

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# Kredi Derecelendirme Kuruluşları, Kredi Notları ve Kredi Temerrüt Swapları Üzerine Bir Değerlendirme


## ÖZET

Yatırımcılar uluslararası piyasalarda ulusal piyasalardan farklı çeşitli risklerle karşılaşmaktadırlar. Etkin bir risk yönetimi ile küresel piyasalardaki risklerden korunmak mümkündür. Risk yönetiminde çeşitli göstergelerden ve finansal araçlardan yararlanılmaktadır. Kredi derecelendirme kuruluşları bağımsız olarak küresel piyasalarda kurum veya kuruluşların risk düzeyini değerlendirerek küresel yatırımcılara bilgi sağlamaktadır. Kredi derecelendirme kuruluşları kredi notu vererek kurum veya kuruluşları değerlendirmektedir. Kredi temerrüt swapları (CDS) son zamanlarda en yaygın kullanılan riskten korunma araçlarındandır. Kredi notları ve CDS primleri bir kurum veya kuruluşun riskinin değerlendirilmesinde tercih edilen önemli bir veri kaynağıdır. Kredi notları kredi derecelendirme kuruluşları tarafından belirlenerek ülkelerin yatırım yapılabilirlik düzeyini göstermektedir. CDS primleri borçlunun temerrüdü durumunda alacaklının kendini korumak için yaptığı sözleşmelerdir. Ülke kredi notları ve CDS primlerinin 2008 ekonomik krizinde yanıltıcı olduğu ifade edilmiştir. Krizden sonra kredi notları ve CDS primlerinin güvenirliliği ve geçerliliği tartışma konusu olmuştur. Bu çalışmada günümüzde çokça tercih edilen kredi notları ile CDS primleri arasındaki ilişki incelenerek yapılan eleştiriler üzerinde sistemin işlevselliğinin değerlendirilmesi amaçlanmaktadır.


**Anahtar Kelimeler:** Kredi Derecelendirme Kuruluşları, Kredi Notları, Kredi Temerrüt Swapları, Finansal Risk

## 1. INTRODUCTION

All open economies receive funds from global capital markets. Global investors invest in reliable, low-risk, and stable markets. However, access to financial information in international markets is challenging. Moreover, the complexity of markets and the overreaction of undeveloped or emerging economies to rapid developments make global capital investments difficult. Therefore, global investors should investigate the economies of host countries (Kutuk & Okur, 2020: 414). Investors' decisions depend on what kind of economic conditions host countries have, how developed financial markets are, and what kind of profiles investors have. Investors should examine host countries' money markets, capital markets, and economic indicators because global capital usually flows from developed economies to developing ones. Global capital develops the economies of host countries, increases their GDPs, and allows them

to transfer technology (Kanlı & Aydoğuş, 2017: 179-180). Investors' decisions depend on how developed host countries' economies are and what risks they are exposed to. Investors need financial information to investigate whether host markets are investible. Intermediary institutions or direct investors receive financial information from financial markets. Reliable financial information allows investors to make accurate decisions. Complete and accurate financial information helps investors and other users evaluate financial markets transparently and objectively (Şak, 2021: 718).

Investors focus on financial information and market risks before making investment decisions. In terms of portfolio management, there are two types of risks. Systematic risks are such as political, inflation, and interest rate risks that affect everyone but cannot be eliminated by diversification in any way. Unsystematic risks arise from companies' activities and can be mitigated through portfolio diversification (Karadeniz et al., 2015: 190-191). Investors can make rational decisions by considering systematic and unsystematic risks. Investments involve risks and uncertainties. Risk is the probability that the expected return deviates from the actual return. There is a linear relationship between risk and return. The higher the risks, the higher the expected return or loss. Risks vary according to the expected return. Investors should also determine the extent or significance of risks before making investments. Risks arise not only in financial instruments that grant ownership rights (e.g., shares) but also in financial instruments of a debt nature. Investors should make sure that borrowers' financial situations do not deteriorate, or if they deteriorate, they should find out about the situation as soon as possible. Individuals and companies use their own criteria or focus on the assessments of specialized institutions when making the risk assessment of the party with which they will conduct financial transactions (Eğilmez, 2021). Financial transactions between countries have international risks, which depend on various factors, such as economic structure, political status, and geographical location. Experts analyze the risks of countries to determine the potential for risks to reduce the expected return on foreign investments (Meldrum, 2000). The more global the investments, the more the international portfolio investments. Increasing portfolio investments also bring along country risks. Therefore, we need to analyze country risks to manage portfolios effectively.

Country risk varies according to the characteristics of those who trade in financial markets. Individuals, businesses, and governments use debt instruments to borrow in the market. Governments are the actors that make the most transactions in the debt market. They borrow for various purposes, such as financing budget deficits, reducing inflation, and financing public expenditures. Public expenditures have become a market-oriented fiscal policy

instrument. Depending on the size of expenditures, governments implement fiscal policies to intervene in markets to promote monetary policies. The prominent economist John Maynard Keynes argued against the invisible hand theory of classical economics and advocated the state's effective intervention role, which successfully reduced the adverse impact of the Great Depression of 1929. Keynes argues that the government should have a hole dug and fill it up to revive the economy and provide employment during recessions (Booth, 1983). Governments need to manage their revenues and expenditures effectively to stimulate markets. The largest sources of revenues for governments are taxes, which are used to finance public expenditures. Governments meet their financing needs by borrowing from domestic and foreign markets where tax revenues are insufficient. Domestic borrowing is carried out through government domestic debt securities (GDDS), while external borrowing is carried out through foreign currency-denominated debt securities. In addition, governments borrow from financial institutions, such as domestic or foreign banks (IMF, World Bank, etc.).

Interest on borrowing transactions depends on how much risk the borrower has. Interest rates are expected to be higher in cases of higher risk. Since risky customers are more likely to default on their debts, it is possible to obtain a higher income from low-risk borrowers by borrowing with a higher risk premium. Therefore, the risk status of individuals, businesses, and governments is critical for the interest rate to be paid. Financial institutions focus on various criteria to determine borrowers' risk levels. For example, the risk level of individuals in Türkiye is based on their Findeks ratings. The riskiness of countries is measured using different methods. Two methods are generally used to measure risk. The first method measures the debt repayment reliability of countries. The second method is credit default swaps (CDSs), which are used to measure the riskiness of debt instruments (bonds, bills, etc.) issued by countries (Eğilmez, 2021).

Individuals, companies, and governments focus on sovereign credit ratings before making financial decisions. Credit ratings given by agencies indicate the investment grade of countries. In addition, foreign investors use CDSs as risk indicators before choosing countries to invest in (Kılcı, 2017). This study assessed the role and impact of credit ratings and CDSs in global markets.

## 2. CREDIT RATING AGENCIES AND CREDIT RATINGS

This chapter explains the historical development of credit rating agencies and the American and Turk Credit Rating Agencies and credit ratings.

### 2.1. The Historical Development Of Credit Rating Agencies

Credit rating agencies emerged in the United States of America (US) in the twentieth century. They first provided credit ratings for bonds. In this period, capital markets were mainly composed of bond markets. Bond markets have been around for three centuries. Therefore, they have a longer history than stock markets. Since the US had the largest and most traded financial markets, the US financial markets operated as a global market (Sylla, 2002).

In 1909, John Moody focused on railroad bonds and published the first publicly available bond rating report. Moody's (1916), Poor's (1922), Standard Statistics Company (1924), and Fitch (1924) are the largest credit rating agencies in operation. Credit rating agencies have grown over time due to mergers or acquisitions. Poor's and Standard merged in 1941. McGraw Hill took over Standard & Poor's in 1966. Fitch merged with IBCA in 1997. The subprime mortgage-backed structured securities market began to proliferate at the end of 2000. The issuers of these securities had only Moody's, Standard & Poor's, and Fitch to turn to for credit. Positive ratings by credit rating agencies are essential for the disposal (sale) of securities backed by mortgages and other debt obligations (White, 2013). If credit rating agencies give erroneously positive ratings, it hurts markets. However, people started to question the validity of credit ratings given by credit rating agencies after the Mortgage Crisis in the US in 2008. During this period, credit rating agencies misled investors by evaluating high-risk bonds as low-risk. Credit rating agencies have made various arrangements to eliminate victimization and regain trust (Yazıcı, 2009).

To prevent similar crises, the US has taken various measures, such as the Wall Street Reform and Consumer Protection Act of 2010. The law also amended the Securities Exchange Act of 1934 to improve the regulation, accountability, and transparency of the National Statistical Rating Organization (NRSRO), which includes the activities of credit rating agencies. In this context, a credit rating office has been established within the US Securities and Exchange Commission (SEC). The Office is tasked with implementing commission rules on the practices of NRSROs in determining credit ratings to protect credit rating users and the public interest. These rules are intended to ensure that credit ratings issued by NRSROs are accurate and unaffected by conflicts of interest and that NRSROs provide investors with more transparent disclosures (SECa, 2022).

### 2.2. Organizations Operating In The Us

The US is the center of credit rating agencies because US markets have a significant share in the global financial system. As a result, credit rating agencies first emerged in the US. The companies are traded in US markets and operate globally. Table 1 shows the list of credit rating agencies accredited in the US (SECb, 2022).

**Table 1.** National credit rating agencies in the US

| **Company Title** | **Abbreviation** |
|---|---|
| A.M. Best Rating Services, Inc. | AMB |
| DBRS, Inc. | DBRS |
| Demotech, Inc. | DEMOTECH |
| Egan-Jones Ratings Co. | EJR |
| Fitch Ratings, Inc. | FITCH |
| HR Ratings de México, S.A. de C.V. | HR |
| Japan Credit Rating Agency, Ltd. | JCR |
| Kroll Bond Rating Agency, Inc. | KIBRA |
| Moody's Investors Service, Inc. | MIS |
| S&P Global | S&P |

**Source:** SECb (2022).

Fitch, Moody's, and S&P are globally recognized credit rating agencies. While nine credit rating agencies operate at the national level, one operates at the international level. All companies but Demotech provide credit ratings without sector discrimination. Demotech carries out credit rating activities only in the insurance sector. Moody's, Standard & Poor's, and Fitch provide short and long-term credit ratings (Uysal, 2022: 35-38).

Table 2 shows the sectors and number of operations of credit rating agencies as of 31 December 2020.

**Table 2**. Activities of credit rating agencies in the US

| Companies | Financial Institutions | Insurance Companies | Corporate Issuer | Asset-Backed Securities | Government Bonds | Total Rating |
|---|---|---|---|---|---|---|
| AMB | N/R | 7.251 | 985 | 5 | N/R | 8.241 |
| DBRS | 11.214 | 192 | 4.327 | 23.482 | 22.556 | 61.771 |
| EJR | 10.119 | 975 | 9.339 | N/R | N/R | 20.433 |
| FITCH | 33.440 | 3.198 | 20.318 | 34.108 | 177.665 | 268.729 |
| HR | 796 | N/R | 396 | N/R | 469 | 1.661 |
| JCR | 950 | 86 | 2.971 | N/R | 348 | 4.355 |
| KIBRA | 1.326 | 132 | 224 | 14.470 | 141 | 16.293 |
| MIS | 34.540 | 2.557 | 32.738 | 47.411 | 560.892 | 678.138 |
| S&P | 50.798 | 6.846 | 55.758 | 36.821 | 927.144 | 1.077.367 |
| **Toplam** | **143.183** | **21.237** | **127.056** | **156.297** | **1.689.215** | **2.136.988** |

**Source:** SECc (2022).

According to the NRSROS report published by the SEC (2022), 79 percent (1,689,215) of total assessments in 2020 were government bonds. Insurance companies had the lowest share in total ratings (0.99%; n=21.237). There are 5.605 credit rating analysts, 86 percent of whom are employed by S&P, MIS, and Fitch. S&P, MIS, and Fitch make 94.7 percent of all annual assessments (around 2.13 million) (SECc, 2022). Moody's (MIS), S&P, and Fitch have a big share in the market (Kılıçaslan and Giter, 2016: 67). Therefore, they play a vital role in the sector.

### 2.3. Organizations Operating In Turkey

Credit rating agencies in Türkiye have a recent history. They were established to ensure a transparent assessment of the capital market. Table 3 shows the credit rating agencies licensed by the Capital Markets Board in Türkiye (CMB, 2022).

**Table 3.** Credit rating agencies in Türkiye

| Company Title | Based |
|---|---|
| DRC Rating Services Inc. | Istanbul |
| Fitch Ratings Ltd. | New York |
| Istanbul International Rating Services Inc. | Istanbul |
| JCR Eurasia Rating Inc. | Istanbul |
| Kobirate International Credit Rating and Corporate Governance Services Inc. | Istanbul |
| Moody's Investor Service Inc. | New York |
| National Investor Services Rating Inc. | Istanbul |
| Saha Corporate Governance and Credit Rating Services Inc. | Istanbul |
| Standards and Poor's Credit Markets Services Europe Limited | London |

**Source**: Capital Markets Board (2022).

There are three international and six national credit institutions operating in Türkiye. The national institutions are based in Istanbul. Istanbul International Rating Services Inc. (TURKRATING) was the first company established nationally in 2006. TURKRATING evaluates the credit ratings of financial and non-financial companies operating in many sectors in Türkiye (Turkrating, 2022). JCR Eurasia Rating Inc., which entered into a partnership with Japan Credit Rating Agency in 2007, is still operating (JCR, 2022). Saha Corporate Governance and Credit Rating Company was established in 2005 and became operational after obtaining its license in 2007 (Saha, 2022). Credit rating agencies in Türkiye have a recent history.

### 2.4. Credit Ratings

Borrowers from financial institutions and organizations must fulfill their obligations on time. Credit rating agencies examine the financial performance of companies or governments and determine whether they fulfill their financial obligations on time (Gür, 2011: 71). Credit rating agencies assess the debt repayment reliability of countries and companies. They boost confidence in economies, ensure the stability of financial markets, and facilitate the entry of national markets into international markets. Credit ratings assess the risk that institutions or organizations bear for their ability to fully meet their responsibilities at the specified time and condition (Kutuk & Okur, 2020). They generally examine the risk of borrowers defaulting on their debts and advise investors. Credit ratings are carried out regarding corporate investment grade and corporate evaluation. Credit rating agencies give institutions or organizations credit ratings by examining their lendability or investability according to specific criteria (Kargı, 2014: 356-357). Credit rating agencies assign credit ratings to institutions to assess their condition. Credit ratings consist of letters, numbers, or symbols. Table 4 matches the credit ratings of the largest global credit rating agencies (Yazıcı, 2009).

**Table 4.** The credit ratings of the three largest global credit rating agencies

| Standard & Poor's | Moody's | Fitch IBCA |
|---|---|---|
| AAA | Aaa | AAA |
| AA+ | Aa1 | AA+ |
| AA | Aa2 | AA |
| AA- | Aa3 | AA- |
| A+ | A1 | A+ |
| A | A2 | A |
| A- | A3 | A- |
| BBB+ | Baa1 | BBB+ |
| BBB | Baa2 | BBB |
| BBB- | Baa3 | BBB- |

| | | |
|---|---|---|
| BB+ | B1 | BB+ |
| BB | B2 | BB |
| BB- | B3 | BB- |
| B+ | Caa1 | B+ |
| B | Caa2 | B |
| B- | Caa3 | B- |
| CCC+ | Ca | CCC+ |
| CCC | C | CCC |
| CCC- | | CCC- |
| CC | | CC |
| C | | C |
| D | | D |

**Source:** Yazıcı (2009).

Credit rating agencies have similar credit ratings. For example, Standard & Poor's and Fitch IBCA have the same credit ratings. The highest credit rating is AAA; the lowest is D. Moody's highest rating is Aaa, and its lowest rating is C. Credit rating agencies help investors assess the credibility and investability of companies and countries. In this way, investors can make informed investment decisions according to the risk status of companies and countries (Kılıçaslan & Giter, 2016: 61).

## 3. CREDIT DEFAULT SWAPS

Ratings indicate the ability of borrowers to make principal and interest payments in full and on time. Credit rating agencies assign credit ratings by assessing and categorizing the credit risks of firms, governments, and securities (Vergili et al., 2018). Thus, credit ratings identify risks in advance. Derivative instruments are generally prefered to hedge risks. Credit default swaps (CDS) are the most common derivative instruments (Bektur & Malcıoğlu, 2017: 74-75). Credit default swap premiums differ from credit ratings because they can be tracked instantaneously (Çonkar & Vergili, 2017). Besides transferring risks, CDSs are also used as investment instruments (Uçarkaya et al., 2022).

Credit default swaps are important indicators used to assess the credit risk of countries. They are a kind of insurance contract to transfer losses (such as bankruptcy) to a third party in case investors fail (İskenderoğlu & Balat, 2018). They are contracts that protect against default by third parties (Karabıyık & Anbar, 2006). They are derivative instruments that transfer risk between investors (Eğilmez, 2021). Unlike credit ratings, CDS premiums allow investors to monitor credit values on an up-to-date basis (Kaya et al., 2015). Credit default swap contracts protect investors against the possible default risk of sovereign and corporate debt. With a CDS

contract, one party buys protection while the other sells protection against credit risk (Gök & Arslan, 2019). Therefore, a CDS contract allows the party that wants to hedge against bankruptcy or default risk to protect itself from credit risk by paying a premium of basis points to the guarantor (Ersan & Günay, 2009). If the risk does not materialize, the party continues to pay premiums until the end of the contract (Ulusoy & Yılmaz, 2017). Thus, the creditor party protects itself against the debtor's default (Kunt & Taş, 2008).

Credit default swap contracts protect one party from risks and provide the other with investment opportunities. By investing, the party undertaking the risk actually earns a return equal to the CDS premium (Özpınar et al., 2018). The CDS premium is indexed to five-year US treasury bonds, which are defined as risk-free (Mazak & Özkul, 2020). Table 5 shows the five-year CDS premiums of 22 countries (WGB, 2022).

**Table 5.** 22 Countries' credit ratings and CDS premiums

| Country | S&P | Five-Year CDS | | | | |
|---|---|---|---|---|---|---|
| | Credit Rating | 5-Year CDS | 1-Month Change | 6-Month Change | Probability of Default (*) | Date |
| United Kingdom | **AA** | 6, 82 | **0.00 %** | **-40.54 %** | 0.11 % | December 23 |
| Germany | **AAA** | 7, 58 | **0.00 %** | **-39.36 %** | 0.13 % | December 23 |
| Austria | **AA+** | 7, 64 | **0.00 %** | **-35.31 %** | 0.13 % | December 23 |
| Netherlands | **AAA** | 9, 15 | **0.00 %** | **-12.86 %** | 0.15 % | December 23 |
| Belgium | **AA** | 10, 22 | **0.00 %** | **-28.03 %** | 0.17 % | December 23 |
| Ireland | **AA-** | 14.85 | **0.00 %** | **-11.61 %** | 0.25 % | December 23 |
| Japan | **A+** | 12, 12 | **0.00 %** | **-21.83 %** | 0.29 % | December 23 |
| United States | **AA+** | 25.00 | **-17.33 %** | **+43.68 %** | 0.42 % | December 23 |
| France | **AA** | 27.49 | **0.00 %** | **+23.27 %** | 0.46 % | December 23 |
| Australia | **AAA** | 35.29 | **+0.11 %** | **+39.71 %** | 0.59 % | December 23 |
| Portugal | **BBB+** | 38.61 | **0.00 %** | **-23.85 %** | 0.64 % | December 23 |
| Canada | **AAA** | 39.24 | **-0.05 %** | **+17.84 %** | 0.65 % | December 23 |
| China | **A+** | 53.85 | **0.00 %** | **-34.16 %** | 0.90 % | December 23 |
| Spain | **A** | 57.82 | **-0.07 %** | **+3.99 %** | 0.96 % | December 23 |
| Greece | **BB+** | 92.63 | **0.00 %** | **-40.32 %** | 1.54 % | December 23 |
| Indonesia | **BBB** | 96.96 | **0.00 %** | **-27.14 %** | 1.62 % | December 23 |
| Mexico | **BBB** | 133.66 | **-3.58 %** | **-15.50 %** | 2.23 % | December 23 |
| Italy | **BBB** | 134.51 | **+3.84 %** | **+9.71 %** | 2.24 % | December 23 |
| Brazil | **BB-** | 257.33 | **-2.23 %** | **-9.49 %** | 4.29 % | December 23 |
| Turkey | **B** | 518.83 | **-13.18 %** | **-35.55 %** | 8.65 % | December 23 |
| Egypt | **B** | 542.70 | **0.00 %** | **0.00 %** | 9.05 % | December 23 |
| Russia | **NR** | 13775.17 | **0.00 %** | **0.00 %** | 100.00 % | December 23 |

(*) The probability of default is calculated considering a 40 percent probability of recovery.

**Source**: WGB (2022).

Economies with a CDS premium ≥ 300 are risky (Eğilmez, 2021). The five-year CDS premium data shows that United Kingdom has the lowest CDS premium (6.82), while Russia has the highest CDS premium (13775). There is a 100% chance that Russia will default on its foreign-currency debts within the next five years. Türkiye has a CDS premium of 518, which has decreased by 35% over the past six months change (July-December 2022). Türkiye, Egypt and Russian have a high credit risk because it has a CDS premium higher than 300. It has increased in United States (43%) change in six-month CDS premiums, followed Australia (39%) and France (23%).

Credit default swaps are both credit ratings and common financial instruments. In case of default, there was a risk that the swap buyer would not be paid the amount insured because credit swaps were not subject to any regulation until 2010. Therefore, swaps led bond buyers to have a false sense of security and buy riskier debt, thinking that CDSs would protect them from losses (Webel et al., 2017). According to the Corporate Finance Institute report, more than 45 trillion dollars were invested in swap transactions in mid-2007 (Corporate Finance Institute, 2022). High investment indicates a high loss in the event of a possible downturn because it is believed that more swaps are traded in the US markets than the sum of the money invested in stocks, mortgages, and bonds. When the Mortgage Crisis hit, Lehman Brothers, one of the major investment banks in the US, found itself in the middle of the crisis. Though once considered unsinkable, Lehman Brothers declared bankruptcy on September 15, 2008 (Kılıçaslan & Giter, 2016). A similar scenario played out in Greece's debt crisis. A large portion of Greece's Gross Domestic Product consisted of its debts. According to the European Union's Maastricht criterion, the country's debt-to-GDP ratio should be below 60%, but investors bought Greece's debt even though it was above 60% (FRED, 2022; EUR-Lex, 2022). Investors also wanted to hedge against Greece's possible default by buying CDS contracts. When the Greek debt crisis erupted in 2012, investors realized that swaps failed to protect them. Greece notified its bond investors that it had defaulted but failed to protect bondholders who bought CDS contracts from losses. Following this, EU countries intervened (Zettelmeyer et al., 2013).

## 4. CONCLUSION

The globalization of investments increases international portfolio investments. The increase in portfolio investments brings along various risks, especially country risk. Therefore, investors should analyze the risks of countries well to manage their portfolios effectively. Although international markets are composed of different geographies, an unfavorable situation in one country adversely affects other countries. Therefore, investors need to analyze country

risks well in order to manage their portfolios effectively. To this end, credit ratings are an important determinant of the financial decisions of individuals, companies, and governments. Credit rating agencies assess countries' investment levels and give them credit ratings. Country credit ratings indicate the investment grade of countries. Although countries' credit ratings are a source of information for investors, inaccurate and misleading credit ratings cause them to make wrong investments. For example, the Mortgage Crisis was more than just a momentary scare; it was a societal breakdown that caused people to question the capitalist system. What caused the crisis was the unregulated swap market and the credit rating system prone to corruption and favoritism. As a result, the crisis caused insecurity in the US and the rest of the world. A similar CDS-induced situation applies to the US and Greece crises.

Although sovereign credit ratings and CDS are considered helpful in risk management, they have imposed and continue to impose high costs on many countries and people. Moreover, both measures raise many questions in terms of country risk. Therefore, the US and the European Union question the oligopolistic structure of credit rating agencies and take various measures to curb their hegemony. Although credit rating agencies argue that they "only give advice" meaning that investors should take the risk at every stage, experts think that regulatory authorities should issue policies to make credit rating agencies more accountable.

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