## MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE SUMY STATE UNIVERSITY

Educational and Research Institute of Business, Economics and Management Department of International Economic Relations

«Admitted to the defence» Head of the department				
QUALIFICATION PAPER				
It is submitted for the Bachelor's degree				
on the topic "GLOBAL FINANCIAL CRISES, THEIR MANIFESTATIONS, CONSEQUENCES AND PREVENTIVE MEASURES"				
Specialty 292 "International Economic Relations"				
Student 4 <sup>th</sup> Course Michael Ogbe				
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It is submitted for the Bachelor's degree requirements fulfillment.

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Qualifying Bachelor's paper contains the results of own research. The use of the ideas, results and texts of other authors has a link to the corresponding source

Research advisor PhD, associate professor (position, scientific degree) (signature) (full name) Sumy, 2023

# MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE SUMY STATE UNIVERSITY

Educational and Research Institute of Business, Economics and Management
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#### TASKS FOR BACHELOR'S DEGREE QUALIFICATION PAPER

(specialty 2	292 " International Economic Relations " )
student <u>4<sup>th</sup></u> course, group	ME-92a.an
(course number)	(group's code)
	Michael Ogbe
	(student's full name)

- 1. The theme of the paper is "global financial crises, their manifestations, consequences and preventive measures" approved by the order of the university from « 11 » 06. 2023 № 0484-VI
- 2. The term of completed paper submission by the student is «06» June 2023
- 3. The purpose of the qualification paper is examination of the various manifestations of global financial crises.
- 4. The object of the research is analysis of tendencies for global financial crises.
- 5. The subject of research is the manifestations, consequences, and prevention measures of global financial crises.
- 6. The qualification paper is carried out on materials of the scientific works of such researchers as Morin E., Pauchant T. C., Douville R., O'Connor J, Reinhart C. M. and others.
- 7. Approximate qualifying bachelor's paper plan, terms for submitting chapters to the research advisor and the content of tasks for the accomplished purpose is as follows:

# Chapter 1 THEORY OF FINANCIAL CRISES 05.05.2023 (title, the deadline for submission )

Chapter 1 deals with theoretical aspects of crises, causes and consequences of global financial crises.

(the content of concrete tasks to the section to be performed by the student  $\ )$ 

Chapter 2 FINANCIAL CRISES ANALYSIS AND MEANS OF PREVENTION

(title, the deadline for submission )

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Chapter 2 deals with dimension of financial crises, indicators of the crisis and analysis of examples of financial crises.

(the content of concrete tasks to the chapter to be performed by the student )

## Chapter 3 MEASURES AIMED AT PREVENTING FINANCIAL CRISES 01/06/02023

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# Chapter 3 deals with possible measures aimed at preventing financial crises (the content of concrete tasks to the chapter to be performed by the student )

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#### **ABSTRACT**

# on bachelor's degree qualification paper on the topic "GLOBAL FINANCIAL CRISES, THEIR MANIFESTATIONS, CONSEQUENCES AND PREVENTIVE MEASURES"

# student Michael Ogbe (full name)

The main content of the bachelor's degree qualification paper is presented on 36 pages, including references consisted of 26 used sources. The paper contains 2 tables and 4 figures.

The purpose of this bachelor's qualification paper is to study the various manifestations of global financial crises. The purpose of the work is realized by accomplishing core tasks:

- 1) Identify and analyze the causes, triggers, and warning signs of financial crises at a global scale.
- 2) Examine the preventive measures and regulatory reforms implemented in response to global financial crises.
- 3) Provide insights into effective strategies for international cooperation and coordination in crisis prevention and response.

In the framework of this study, methods of schematic analysis, forecasting method, graphical method, economic and statistical methods....

The following conclusions are formulated based on the results of the study:

- 1. Understanding the manifestations of global financial crises is of utmost importance. The research likely delves into the various forms these crises can take, providing valuable insights into the factors and events that contribute to their emergence.
- 2. The consequences of global financial crises have far-reaching impacts. These consequences encompass economic recessions, high unemployment rates, decreased consumer spending, bankruptcies, and even political and social unrest.
- 3. The work likely emphasizes the significance of proactive measures in preventing global financial crises. It may discuss a range of preventive strategies,

including regulatory reforms, macroeconomic policies, enhanced risk management practices, and international cooperation among financial institutions and regulatory bodies.

The results of approbation of the main provisions of the bachelor's qualification paper research were considered on the IV International Scientific and practical conference "INTERNATIONAL ECONOMIC RELATIONS AND SUSTAINABLE DEVELOPMENT".

Keywords: financial crises, manifestations of crises, manifestations of crises, consequences of crises, measures to prevent crises.

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#### **INTRODUCTION**

The relevance of the topic is that financial crises have had a profound and enduring impact on economies worldwide, making them a critical area of study. Understanding the manifestations, consequences, and prevention measures of global financial crises can contribute to a comprehensive understanding of the functioning of financial systems and the factors that influence their stability.

The purpose of the work is to examine the various manifestations of global financial crises. This involves studying the causes, triggers, and contributing factors that lead to the emergence of financial crises in different economic contexts. By analyzing historical cases and conducting in-depth research, the thesis aims to identify common patterns and trends in the onset and development of financial crises.

The object of study is global financial crises.

The subject of study for the Bachelor's Thesis is the manifestations, consequences, and prevention measures of global financial crises

- 1) Identify and analyze the causes, triggers, and warning signs of financial crises at a global scale.
- 2) Examine the preventive measures and regulatory reforms implemented in response to global financial crises.
- 3) Provide insights into effective strategies for international cooperation and coordination in crisis prevention and response.

Research methods such as analysis, generalization, synthesis, and statistical methods were used for this bachelor thesis.

The information base includes the scientific works of such researchers as Morin E., Pauchant T. C., Douville R., O'Connor J, Reinhart C. M. and others.

The work consists of an introduction, 20 pages of the main text, conclusions, a list of used sources and one appendix.

#### 1 THEORY OF FINANCIAL CRISES

#### 1.1 Theoretical aspects of crises

The term "crisis" is frequently utilized and misused in common language and the social sciences. It has been utilized to refer to any severe issue or detrimental circumstance, resulting in imprecision and confusion. Both Pauchant and Morin, whose articles are included in this volume, emphasize the significance of precisely defining what constitutes a crisis. To establish clarity, it is important to begin with the term's definition. The word "crisis" is derived from the Greek word "Krisis," which refers to a moment of decision. In ancient Greek tragedies, crises were critical junctures that necessitated decision-making. They represented historical turning points where human decisions could significantly impact the future [1][2].

Jim O'Connor has aptly recounted the distinguished history of the contemporary understanding of crisis in his book The Meaning of Crisis. The term originally emerged in the medical field, referring to an organism's condition of being fatally perilous to its health. Such a condition required permanent damage, external intervention, and fundamental restructuring to recover from, as the organism's self-healing capabilities were inadequate to overcome the crisis. Social scientists have adopted this fundamental medical metaphor to describe crises in economic, political, social, and cultural systems. Social systems theory has supplied the conceptual framework to articulate crises in social systems, which are situations that jeopardize the system's survival and necessitate its restructuring [3].

According to Coombs, a crisis is characterized as "an unpredictable event that threatens important expectancies of stakeholders related to health, safety, environmental, and economic issues, which can seriously impact an organisation's performance and generate negative comments" [4].

Although financial crises share certain characteristics, they can manifest in various forms. Typically, a financial crisis is linked to one or more of the following factors: significant shifts in credit volume and asset values; severe disturbances in financial intermediation and the provision of external financing to diverse economic actors; extensive balance sheet issues among firms, households, financial intermediaries, and governments; and large-scale government assistance (such as liquidity support and recapitalization). Given their multifaceted nature, financial crises are usually complex events that cannot be easily defined by a single indicator. Financial crises may have diverse manifestations, but they can generally be categorized into two types. Reinhart differentiate between two types of crises: those categorized based on strictly quantitative criteria, and those primarily based on qualitative and subjective analysis. The former group typically encompasses currency and sudden stop crises, while the latter group involves debt and banking crises. Nonetheless, definitions of financial crises are heavily impacted by the theories that attempt to elucidate their causes [5].

Financial crises can take on various forms, the literature has established precise definitions for many types of crises. For instance, a currency crisis occurs when there is a speculative attack on a currency, leading to a devaluation or a significant drop in value, or necessitating the expenditure of a large amount of international reserves or the imposition of capital controls. A sudden stop crisis (also known as a capital account or balance of payments crisis) can be defined as a substantial and often unforeseen decrease in international capital inflows or a sharp reversal in aggregate capital flows to a country, frequently occurring simultaneously with a substantial increase in its credit spreads. Given that these are quantifiable variables, they are suitable for the application of quantitative methodologies [6].

Other crises are linked to negative debt dynamics or turbulence in the banking system. A foreign debt crisis happens when a country is incapable of repaying its foreign debt, or decides not to do so. It can manifest as either a sovereign or private

debt crisis, or both. A domestic public debt crisis takes place when a country fails to meet its domestic fiscal commitments in actual terms, either by explicitly defaulting, or by inflating or devaluing its currency, or by using some other form of financial oppression. In a systemic banking crisis, actual or potential bank runs and failures may lead banks to halt the convertibility of their liabilities or force the government to intervene to prevent this by extending liquidity and capital assistance on a substantial scale. Since these variables are not as easily quantifiable, they are more suitable for qualitative methodologies. A financial crisis can be described as a diverse range of scenarios where certain financial assets experience a substantial reduction in their nominal value. Banking panics were frequently linked with financial crises during the 19th and early 20th centuries, and many recessions coincided with such panics. Additionally, the bursting of financial bubbles, stock market crashes, currency crises, and sovereign defaults are also often referred to as financial crises [6][7].

The author identifies the following types of financial crises:

- 1. Banking crisis.
- 2. Currency crisis.
- 3. Speculative bubbles and crashes.

A banking crisis occurs when a bank experiences a sudden surge of withdrawal requests from depositors. Due to the fact that banks use a large portion of the deposits they receive for lending, it becomes difficult for them to repay all deposits promptly when a large number of them are requested at once, thereby causing the bank to become insolvent. Consequently, depositors may lose their money if it is not covered by deposit insurance. If bank runs become prevalent across the banking system, it is known as a systemic banking crisis or banking panic [8].

A currency crisis, which is often categorized as a financial crisis, is defined as a devaluation crisis by some. For example, Kaminsky and colleagues (1998) consider currency crises to occur when the average monthly percentage decrease in the

exchange rate and monthly percentage decline in exchange reserves exceeds its average by more than three standard deviations [9].

A speculative bubble is a phenomenon where the prices of assets are excessively inflated and remain so for a prolonged period. This is usually driven by buyers who expect to sell the assets later at a higher price without giving much thought to the assets' intrinsic value. When market participants decide to sell their holdings, a sudden decline in asset prices can occur, leading to a potential crash. However, accurately identifying bubbles can be challenging since it is difficult to determine if an asset's price is in line with its fundamental value. As a result, economists often debate the existence and frequency of such bubbles. Proponents of the Efficient Market Hypothesis, for instance, argue that markets are efficient and asset prices reflect all available information, making it impossible for bubbles to occur. However, proponents of behavioral finance theories suggest that market participants' emotions and sentiments can influence asset prices, leading to speculative bubbles. The consequences of a speculative bubble can be significant, affecting both the financial sector and the broader economy. A market crash can lead to widespread panic, triggering a domino effect of bankruptcies, job losses, and economic recession. Governments and central banks may intervene by implementing policies such as monetary easing or fiscal stimulus to mitigate the impact of a potential bubble burst. In conclusion, speculative bubbles are a phenomenon where asset prices remain excessively inflated for a prolonged period, driven by market participants' expectations of future price increases rather than intrinsic value. The existence and frequency of such bubbles remain a subject of debate among economists. However, the consequences of a potential bubble burst can be severe, with significant economic and social implications. [10].

The classification of financial crises is of great importance for clarifying their essence. But the world's leading economists still do not have a single answer to this question [11].

#### 1.2 Analysis of the causes of global financial crises

The Global Financial Crisis (GFC) was caused by multiple factors, and experts are still debating the importance of each factor. Some of the key factors include:

Excessive risk-taking in a favourable macroeconomic environment. Before the GFC, the economy in the United States and other countries was favourable, with stable economic growth and low rates of inflation, unemployment, and interest. This led to a rise in house prices, with many households in the US and Europe borrowing excessively to purchase and build houses, driven by expectations that prices would continue to rise. This risky borrowing was often done by investors seeking short-term profits and subprime borrowers with high default risks. Banks and lenders were willing to make increasingly large volumes of risky loans due to competition between lenders and the presumption that favourable conditions would continue. Lenders also had little incentive to assess borrowers' repayment abilities, as they sold large amounts of loans to investors in the form of mortgage-backed securities (MBS), which were considered safe assets by investors. These investors included large US and foreign banks seeking higher returns.

Banks and other lenders were eager to provide large amounts of risky loans due to several factors. Firstly, there was fierce competition among lenders to offer increasingly larger amounts of housing loans, which appeared highly profitable given the favorable economic climate at the time. Secondly, many lenders did not thoroughly assess borrowers' ability to repay the loans, reflecting the widespread belief that conditions would remain favorable. Additionally, lenders had little motivation to exercise caution in their lending decisions because they did not expect to suffer any losses. Instead, they sold a considerable amount of loans to investors in the form of "mortgage-backed securities" (MBS), which contained thousands of

individual mortgage loans of varying quality. These MBS products became increasingly intricate and opaque over time but were still rated by external agencies as if they were very safe. Investors who purchased MBS products mistakenly believed they were buying a low-risk asset, assuming that most loans in the package would continue to be repaid, even if some were not. These investors included major US banks and foreign banks from Europe and other countries seeking higher returns than they could obtain in their local markets.

2. Heightened borrowing by financial institutions and investors. Leading up to the GFC, banks and investors both domestically and internationally borrowed larger amounts to expand their lending and buy MBS products. When borrowing money to purchase an asset, it increases potential profits but also magnifies potential losses. Thus, when house prices started to drop, banks and investors incurred significant losses as they had borrowed so much.

Moreover, banks and some investors increasingly borrowed money for short periods, including overnight, to purchase assets that could not be sold quickly. As a result, they became more dependent on lenders, including other banks, to extend new loans as existing short-term loans were paid back.

#### 3. Regulatory and policy errors

The regulation of subprime lending and MBS products was inadequate. In particular, there was insufficient regulation of the institutions that created and sold the complex and opaque MBS to investors. Many individual borrowers were provided with loans that were too large for them to pay back, and fraudulent activities such as overstating a borrower's income and over-promising investors on the safety of the MBS products became more common [4] [6] [12].

Recessions can have varying causes and outcomes. Economic growth often precedes a recession due to normal economic cycles, but other unforeseeable factors can also contribute. Oversupply can cause a recession when companies produce too many goods and services that cannot be consumed, resulting in decreased production,

layoffs, and reduced purchasing power. Uncertainty, such as that caused by wars or pandemics, can create unpredictability in consumer trends and lead to economic inactivity. Economic bubbles can also cause a recession by driving up prices due to speculation, market trends or consumer confidence. When the bubble bursts, prices plummet, and the lack of new buyers leads to a decrease in demand. Examples of past economic bubbles include the tulip bubble in the 17th century and the housing market bubble in 2008 [16].

#### 1.3 Consequences of financial crises. Measures to prevent financial crises.

The aftermath of economic crises can have various effects, both positive and negative, on the economy as a whole and individual units within it. On the positive side, crises can serve as a catalyst for transformation and the adoption of measures to increase competitiveness, as well as leading to the creation of new, promising businesses that stimulate economic growth. Crises also provide an opportunity to gain experience in overcoming difficult situations and are often the basis for scientific and technological progress. However, the negative consequences of a crisis cannot be disregarded. The decrease in business activity is reflected in production and sales, leading to a loss of jobs, unemployment, and a decline in living standards. The national currency may weaken, and inflation may become apparent.

The effects of the economic crisis consist of both destructive and beneficial components [14].

A financial crisis is a situation in which the value of financial assets or institutions rapidly decreases due to a variety of reasons, such as economic downturns, market volatility, or banking failures. When a financial crisis occurs, its consequences can be far-reaching and severe, affecting not only the financial sector but also the broader economy and society as a whole [14] [15].

There are the following consequences of financial crises:

- 1. Economic recession: A financial crisis can trigger an economic recession, characterized by a prolonged period of slow economic growth, rising unemployment, and declining consumer confidence. Businesses may experience reduced sales and profits, leading to layoffs and further contraction in the economy. The recession can last for months or even years, with a significant impact on the overall standard of living.
- 2. Stock market decline: During a financial crisis, the stock market may experience a sharp decline in value, causing investors to lose confidence in the economy and financial institutions. This can further exacerbate the economic downturn and lead to a self-reinforcing cycle of declining investment and consumer spending. The decline in stock prices can also reduce household wealth, affecting consumer confidence and spending.
- 3. Bank failures: A financial crisis can cause banks to fail due to a lack of liquidity or insolvency, leading to a freeze in lending and a contraction in the credit market. This can make it more difficult for businesses and consumers to obtain loans, further stifling economic growth. Bank failures can also lead to a loss of confidence in the financial system, creating a ripple effect across the economy.
- 4. Government bailouts: To prevent a complete collapse of the financial system, governments may step in and provide bailouts to troubled financial institutions. These bailouts can be costly and controversial, as taxpayers may bear the burden of the rescue efforts. Bailouts can also create moral hazard, as financial institutions may take on more risk knowing that they will be bailed out in the event of a crisis.
- 5. Currency devaluation: A financial crisis can cause a rapid devaluation of a country's currency, making imports more expensive and reducing the purchasing power of consumers. This can lead to inflation and further economic instability. Currency devaluation can also affect international trade and investment, leading to a decline in exports and foreign investment.

6. Social unrest: The consequences of a financial crisis can lead to social unrest, as individuals and groups may become frustrated with the government and financial institutions. Protests and demonstrations can further destabilize the economy and create a sense of uncertainty. Social unrest can also lead to political instability, affecting the overall governance and stability of the country [14] [15].

According to De Haas and Lelyveld, crisis is a Short-Run effect. Financial crises-linked recessions typically exhibit exceptional severity, with significantly larger decreases in actual economic output, and their recuperation rates are generally sluggish. Correspondingly, recessions that are synchronized worldwide often persist for extended periods and are profound, with recoveries from such downturns usually being feeble [16].

#### 2 FINANCIAL CRISES ANALYSIS AND MEANS OF PREVENTION

#### 2.1 Dimension of financial crises

Measuring a financial crisis involves analyzing various economic indicators, market data, and other factors to assess the severity and impact of the crisis on the financial system and the overall economy. While there is no single definitive method for measuring a financial crisis, several key metrics and tools are commonly used by economists, policymakers, and financial analysts to evaluate its magnitude and track its progress. Here are some of the main methods employed in measuring a financial crisis:

Traditional economic indicators such as gross domestic product (GDP), employment rates, inflation, and consumer spending play a crucial role in measuring the impact of a financial crisis. Significant declines in GDP growth, rising unemployment rates, a sharp increase in inflation, and reduced consumer spending are typical signs of a severe financial crisis. Financial Market Data: Financial markets provide valuable real-time information about the state of the economy and the severity of a financial crisis. Key market indicators such as stock market indices, bond yields, interest rates, credit spreads, and exchange rates are closely monitored. Steep declines in stock prices, widening credit spreads, volatile bond yields, and sudden currency depreciations often indicate a financial crisis. The health of the banking system is critical in assessing the severity of a financial crisis. Key indicators include measures of bank capital adequacy, liquidity, non-performing loans, and loan delinquency rates. A significant increase in non-performing loans, a decline in capital ratios, and liquidity shortages within the banking sector may suggest a deepening financial crisis [17].

Financial Stress Indexes: Financial stress indexes are composite indicators that aim to capture the overall stress levels in the financial system. These indexes combine various market and banking indicators to create a single metric that reflects the

severity of the crisis. Examples include the Chicago Fed National Financial Conditions Index (NFCI) and the St. Louis Fed Financial Stress Index (STLFSI) [18] [19].

It's important to note that measuring a financial crisis is a complex and ongoing process. Different crises may require different metrics and methods, and it is essential to consider a combination of indicators to gain a comprehensive understanding of the crisis's nature and impact. Additionally, the interpretation of these measurements requires expertise and contextual analysis to avoid misinterpretations or false alarms.

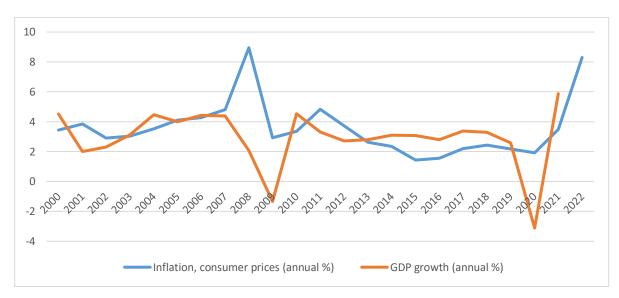


Figure 2.1 – World consumer price inflation and GDP growth in % [20]

According to figure 2.1, consumer price inflation and GDP growth are roughly equal between 2% and 5%, and do not normally deviate from these limits. However, in times of global financial crises, these indicators diverge - inflation rises, and GDP growth falls. This can be seen in 2007-2009 and 2020, which coincides with the global crises.

The NFCI and ANFCI are designed to have an average of zero and a standard deviation of one over a period of time starting from 1971. When the NFCI has positive values, it indicates that financial conditions have been historically tighter than

average, whereas negative values suggest looser-than-average financial conditions. Likewise, positive values of the ANFCI indicate tighter financial conditions than what would be expected based on prevailing macroeconomic conditions, while negative values suggest the opposite [18].

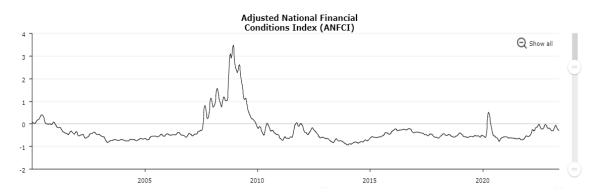


Figure 2.2 – Adjusted National Financial Conditions Index (ANFCI) in 2000-2023 [18]

According to figure 2.2, in 2007-2009, a significant increase in the value of ANFCI can be observed, which reflects the crisis that occurred in those years. In 2020, the ANFCI also increased, but not as much as in 2007-2009, and quickly returned to normal values.2.2. Positive values of the ANFCI indicate that financial conditions are historically tighter than what would be expected based solely on prevailing macroeconomic factors such as interest rates, inflation, and economic growth. This suggests that financial institutions may have stricter lending practices, higher borrowing costs, or other factors contributing to a more challenging financial environment.

The STLFSI4 is composed of four sub-indices, each representing a specific aspect of financial stress. These sub-indices include stock market volatility, yield spreads, the Treasury yield curve, and credit market conditions. By combining these components, the STLFSI4 aims to capture a holistic view of the overall financial stress experienced in the economy.

The index is designed to be centered around zero, with positive values indicating higher financial stress and negative values suggesting lower stress levels. The magnitude of the index values reflects the severity of financial stress. For instance, higher positive values indicate significant stress, while lower negative values suggest a more relaxed financial environment. STLFSI4 is presented in figure 2.3

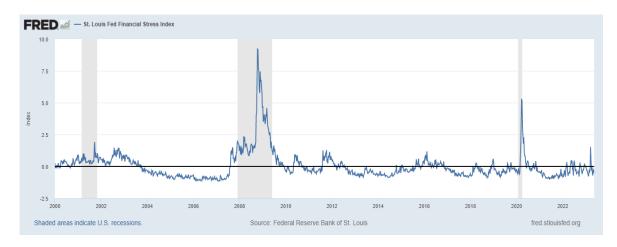


Figure 2.3 – St. Louis Fed Financial Stress Index (STLFSI4) in 2000-2023 [19]

In Figure 2.3, the same patterns as with the ANFCI index and GDP growth with inflation rates can be clearly observed. In 2007-2009 - a significant increase in the index, in 2020 - a sharp increase in the index, but not as large as in 2008. In 2001, you can see a small increase in the index. This growth mirrors the 2001 recession.

During periods of financial crises, both the ANFCI and the STLFSI4 tend to exhibit significant increases, reflecting the systemic strain and market turbulence. The indexes act as barometers, providing quantitative measures of the severity and duration of the crisis. Additionally, they can be valuable tools for policymakers and market participants in assessing the effectiveness of policy responses and monitoring the recovery process.

In conclusion, the dimensions of financial crises are complex and multifaceted, encompassing various factors that can contribute to the occurrence and severity of such events. This chapter has explored the dimensions of financial crises, focusing on

the role of two important indicators: the ANFCI (Adjusted National Financial Conditions Index) and the STLFSI4 (St. Louis Fed Financial Stress Index).

#### 2.2 Analysis of examples of financial crises

Analysis of examples of financial crises provides valuable information about the causes, consequences and dynamics of these events, shedding light on their size and complexity. Such analysis helps policymakers, economists, and market participants better understand the vulnerabilities and risks that can lead to financial crises and develop strategies to mitigate their impact.

One prominent example of a financial crisis is the Global Financial Crisis (GFC) of 2008. The GFC was triggered by a combination of factors, including the bursting of the U.S. housing bubble, subprime mortgage defaults, and the failure of major financial institutions. It exposed weaknesses in the global financial system, leading to a severe credit crunch, a collapse in asset prices, and a deep global recession. The crisis highlighted the interconnectedness of financial markets, the risks associated with complex financial instruments, and the importance of effective regulation and risk management [21].

Other example of a financial crisis is the ongoing worldwide economic recession caused by the COVID-19 pandemic, commonly referred to as the Great Lockdown, has had significant impacts. This recession commenced in numerous countries in February 2020, following a year of sluggish economic growth and reduced consumer activity. The implementation of COVID-19 lockdown measures and other precautionary measures in early 2020 further exacerbated the crisis, leading to a severe downturn in the global economy. Within a span of seven months, every advanced economy had entered into a state of recession [22].

When analyzing a financial crisis, it is crucial to assess its root causes. This involves identifying the specific factors that triggered the crisis, such as excessive

risk-taking, unsustainable levels of debt, asset price bubbles, or weak regulatory frameworks. Understanding these causes helps in recognizing warning signs and implementing measures to prevent similar crises in the future.

In 2009, as per the Federal Deposit Insurance Corporation (FDIC), a total of 140 American banks experienced failures, which included notable institutions like Bear Stearns, Citigroup, Lehman Brothers, Merrill Lynch, and Wachovia. These prominent bank failures highlighted the vulnerabilities within the banking system, indicating significant weaknesses [23].

The financial crisis originated primarily from the deregulation of the financial industry, which allowed banks to participate in hedge fund trading using derivatives. As a result, banks sought more mortgages to facilitate the profitable sale of these derivatives. They introduced interest-only loans that were affordable for subprime borrowers. In 2004, the Federal Reserve increased the fed funds rate at the same time that the interest rates on these new mortgages were readjusted. This led to a decline in housing prices starting in 2007, as the supply of houses exceeded demand. This situation left homeowners trapped, unable to afford their mortgage payments and unable to sell their properties. As the values of the derivatives plummeted, banks became reluctant to lend to each other. This created a financial crisis that ultimately resulted in the onset of the Great Recession [25].

Financial crises can arise due to various factors, which encompass:

- 1. Excessive borrowing: When individuals, businesses, and governments accumulate an overwhelming amount of debt, they expose themselves to the risk of a financial collapse.
- 2. Speculative asset price bubbles: When the value of an asset, such as real estate or stocks, experiences a rapid and unsustainable increase, a subsequent sharp decline can lead to a financial crisis.

- 3. Bank panics: When a significant number of depositors simultaneously attempt to withdraw funds from a bank, the institution may face insolvency and closure, triggering a financial crisis.
- 4. Mismanagement of financial institutions: Inadequate management of financial institutions can result in their bankruptcy or failure, potentially setting off a financial catastrophe.
- 5. Economic recessions: Financial crises can emerge from economic recessions characterized by a decline in economic activity and a rise in unemployment.

The causes of the financial crises of 2008 and 2020 are described in more detail in Table A1.

While each financial crisis has its own distinct characteristics and underlying causes, they often lead to similar outcomes and consequences. Financial crises can stem from various triggers, such as excessive leverage, asset price bubbles, banking system weaknesses, or economic downturns. However, regardless of their specific origins, the repercussions of these crises tend to exhibit common patterns. One common outcome of financial crises is the severe disruption to economic activity. These crises can lead to a contraction in GDP growth, reduced business investment, and a decline in consumer spending. The impact on employment is typically significant, with rising unemployment rates and job losses across various sectors.

Financial crises also tend to result in a loss of wealth and asset devaluation. Stock markets may experience sharp declines, housing prices can plummet, and investors may face substantial losses. This erosion of wealth has ripple effects on consumer confidence, as individuals and households become more cautious with their spending, further exacerbating the economic downturn.

Another consequence of financial crises is the strain they place on financial institutions. Banks and other financial intermediaries may face solvency issues, liquidity shortages, or insolvency, leading to a credit crunch and reduced access to

capital for businesses and individuals. This tightening of credit conditions further hampers economic growth and exacerbates the crisis. Furthermore, financial crises often lead to government interventions and policy responses. Governments may implement measures to stabilize financial markets, such as providing liquidity support to troubled institutions, implementing regulatory reforms, or enacting fiscal stimulus to boost economic recovery. These interventions aim to restore confidence, promote stability, and mitigate the adverse effects of the crisis.

#### 2.3 Measures aimed at preventing financial crises

Financial crises have been a recurrent phenomenon throughout history, with devastating consequences for economies, businesses, and individuals. The 2008 global financial crisis serves as a stark reminder of the need to implement effective measures to prevent such crises from occurring in the future. This section examines some key measures that have been implemented to prevent financial crises, focusing on regulatory reforms, improved risk management practices, and enhanced international cooperation.

One of the primary measures aimed at preventing financial crises is the implementation of regulatory reforms. These reforms seek to enhance the stability and resilience of the financial system by addressing systemic risks and vulnerabilities. The following regulatory measures have gained prominence in recent years. Regulatory authorities have imposed stricter capital adequacy requirements on financial institutions. These requirements ensure that banks and other financial entities maintain sufficient capital to absorb potential losses, thereby reducing the risk of insolvency during periods of economic downturns. Liquidity requirements have also been tightened to ensure that financial institutions have enough liquid assets to meet their short-term obligations. Regulatory authorities have strengthened their supervision and oversight of financial institutions to identify and address potential risks in a timely manner. This includes conducting regular stress tests, monitoring systemic risks, and enforcing stricter compliance standards to prevent excessive risktaking. Improved resolution frameworks have been established to address the orderly resolution of failing financial institutions without disrupting the overall stability of the financial system. These frameworks aim to minimize the use of taxpayer funds in bailouts and provide a clear and predictable process for the resolution of distressed institutions.

Sound risk management practices play a crucial role in preventing financial crises. Financial institutions and market participants are now expected to adopt robust risk management frameworks to identify, measure, and mitigate risks effectively. The following measures have been emphasized to strengthen risk management practices. Financial institutions are required to establish strong risk governance frameworks that clearly define risk management responsibilities and ensure effective oversight by the board of directors. This includes establishing risk appetite frameworks, conducting comprehensive risk assessments, and implementing risk mitigation strategies. Institutions are encouraged to enhance their risk assessment models to better capture and quantify various types of risks, including credit, market, liquidity, and operational risks. These models should be regularly reviewed and validated to ensure accuracy and reliability. Stress testing has become an essential tool for assessing the resilience of financial institutions and the overall financial system to adverse scenarios. Stress tests simulate extreme market conditions and assess the potential impact on institutions' capital, liquidity, and solvency, helping to identify vulnerabilities and guide risk management strategies.

Financial crises are often transnational in nature, requiring close international cooperation to prevent and mitigate their impact. The following measures have been taken to enhance international cooperation. Regulatory bodies across different jurisdictions have strengthened their cooperation and coordination to develop consistent regulatory standards and share information on emerging risks. International bodies, such as the Financial Stability Board (FSB), have been instrumental in promoting cross-border collaboration among regulators and standard-setting bodies. International organizations and central banks have established mechanisms for sharing information on emerging risks and early warning indicators. These systems facilitate timely actions to address vulnerabilities before they escalate into full-blown financial crises. International cooperation frameworks have been established to facilitate coordinated crisis management and contingency planning in the event of a

financial crisis. These frameworks aim to enhance the ability of countries to respond effectively and minimize the spillover effects of crises.

Table 2.1 - Measures aimed at preventing financial crises

Strengthening Capital and Liquidity Requirements	Imposing stricter capital adequacy and liquidity requirements on financial institutions to enhance their stability and ability to absorb potential losses.	
Enhanced Supervision and Oversight	Strengthening regulatory authorities' supervision and oversight of financial institutions to identify and address potential risks in a timely manner.	
Resolution Frameworks	Establishing improved frameworks for the orderly resolution of failing financial institutions to minimize disruptions to the overall stability of the financial system.	
Strengthening Risk Governance	Requiring financial institutions to establish robust risk governance frameworks to ensure effective oversight and management of risks.	
Improved Risk Assessment Models	Encouraging financial institutions to enhance their risk assessment models to better capture and quantify various types of risks.	
Stress Testing	Conducting stress tests to assess the resilience of financial institutions and the overall financial system to adverse scenarios.	
International Regulatory Coordination	Enhancing cooperation and coordination among regulatory bodies across different jurisdictions to develop consistent regulatory standards.	
Information Sharing and Early Warning Systems	Establishing mechanisms for sharing information on emerging risks and early warning indicators to facilitate timely actions.	
Crisis Management and Contingency Planning  Establishing international cooperation frameworks for coordinate crisis management and contingency planning in the event of a financial crisis.		

Source: based on [26].

Preventing financial crises requires a comprehensive and multi-faceted approach involving regulatory reforms, improved risk management practices, and enhanced international cooperation. While significant progress has been made in implementing these measures, ongoing vigilance and adaptability are essential to stay ahead of evolving risks and vulnerabilities. By continuously refining and strengthening these preventive measures, policymakers and market participants can work towards a more stable and resilient financial system, mitigating the likelihood and impact of future financial crises.

Predicting financial crises is a challenging task, as they often emerge unexpectedly and have far-reaching consequences. However, researchers and policymakers have developed various tools and indicators to detect early warning signs of financial crises. Two widely recognized indices for this purpose are the ANFCI (Adjusted National Financial Conditions Index) and the STLFSI (St. Louis Fed Financial Stress Index). This section explores the possibility of tracking these indices to predict the first signs of financial crises.

Researchers and analysts often monitor the ANFCI to identify turning points in financial markets and to anticipate the first signs of financial stress. Rapid increases in the ANFCI may indicate emerging vulnerabilities, such as excessive credit growth, declining asset quality, or market imbalances. Tracking the ANFCI can help policymakers and market participants take preemptive measures to mitigate risks and avert potential financial crises. The ANFCI and STLFSI indices provide valuable insights into the overall health of financial markets and can serve as early warning signals for potential financial crises. Tracking these indices enables researchers, policymakers, and market participants to identify shifts in financial conditions and the level of stress in the system. While these indices are not infallible predictors of crises, they offer important indicators to help anticipate and mitigate risks. By incorporating these indices into risk management frameworks and decision-making processes, stakeholders can enhance their ability to detect the first signs of financial stress and take appropriate preventive measures to safeguard the stability of the financial system.

#### **CONCLUSIONS**

Understanding the manifestations of global financial crises is crucial: The work likely delves into various manifestations of global financial crises. By studying and analyzing these manifestations, the research provides insights into the factors and events that contribute to the onset of financial crises. This understanding is vital for policymakers, economists, and financial institutions to develop effective preventive measures and mitigate the consequences of future crises.

Consequences of global financial crises are far-reaching. These consequences can include economic recessions, high unemployment rates, reduced consumer spending, bankruptcies, and even political and social unrest. By examining the impact of these crises, the research highlights the importance of implementing preventive measures to minimize the adverse effects and safeguard the stability of the global financial system.

The significance of preventive measures in averting financial crises. The work likely emphasizes the need for proactive measures to prevent global financial crises. It may discuss various preventive strategies, such as regulatory reforms, macroeconomic policies, improved risk management practices, and international cooperation among financial institutions and regulatory bodies. By evaluating the effectiveness of different preventive measures, the research contributes to the understanding of best practices and policy recommendations for mitigating the likelihood and severity of future financial crises.

In conclusion, this bachelor's work has provided a comprehensive analysis of global financial crises of 21th century, focusing on their manifestations, consequences, and preventive measures. The findings and insights presented in this study contribute to our understanding of the dynamics and implications of financial crises, and offer valuable recommendations for policymakers, financial institutions, and stakeholders involved in managing and preventing such crises.

The examination of the manifestations of global financial crises has revealed the diverse range of triggers and events that can lead to their occurrence. From stock market crashes to housing bubbles and banking crises, understanding these manifestations is crucial for anticipating and mitigating future crises. By identifying the patterns and warning signs associated with these manifestations, policymakers can enhance their ability to respond effectively and prevent the escalation of crises.

Moreover, the analysis of the consequences of global financial crises has underlined the profound impact they have on economies and societies worldwide. The consequences include economic recessions, high unemployment rates, reduced consumer spending, and political and social unrest. These findings highlight the urgent need for proactive measures to prevent and mitigate the consequences of financial crises. Policymakers and financial institutions should prioritize the development and implementation of regulatory reforms, improved risk management practices, and macroeconomic policies that can enhance the resilience and stability of the global financial system.

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## Appendix A

Table A.1 -2007-2008 financial crisis and COVID-19 recession roots [21-25]

2007–2008 financial crisis	COVID-19 recession
Subprime Mortgage Crisis: One of the primary	Global Health Emergency: The rapid
causes was the collapse of the subprime	spread of the COVID-19 virus worldwide
mortgage market in the United States. Lenders	led to widespread lockdown measures,
provided mortgages to borrowers with poor	travel restrictions, and business closures.
creditworthiness, often referred to as subprime	These actions aimed to contain the virus but
borrowers.	had severe economic consequences,
	disrupting supply chains, reducing
	consumer spending, and causing a sharp
	decline in economic activity.
Excessive Risk-taking and Financial	Market Uncertainty: The uncertainty
Innovation: Financial institutions engaged in	surrounding the pandemic and its impact on
risky lending practices, such as offering loans	public health and the economy triggered
with low down payments or no documentation	significant volatility in financial markets.
of income. This lax underwriting standards and	Investors faced heightened levels of
excessive risk-taking allowed the housing	uncertainty, leading to panic selling, sharp
bubble to inflate, with the assumption that	market declines, and a flight to safe-haven
home prices would continue to rise indefinitely.	assets.
Leverage and Excessive Debt: Financial	Corporate Debt and Default Risks: Many
institutions and investors were highly	businesses, particularly those in sectors
leveraged, meaning they borrowed large sums	heavily affected by the pandemic, faced
of money to finance their investments. This	significant challenges. With reduced
amplified potential losses and heightened	revenues and cash flows, companies
systemic risks.	struggled to service their debt obligations,
systeme risks.	increasing the risk of defaults.
Deterioration of Credit Rating Agencies: Credit	Financial System Vulnerabilities: The crisis
rating agencies played a crucial role in	exposed vulnerabilities within the financial
assessing the risk of mortgage-backed securities	system. Highly interconnected global
and other financial products. However, they	financial markets and complex financial
failed to accurately evaluate the risks associated	instruments amplified the transmission of
with these complex instruments, assigning high	shocks across borders. Additionally,
ratings that misled investors about their true	concerns emerged about the health of
risk levels.	financial institutions, including banks and
TISK IEVEIS.	non-bank financial entities, as their
	exposure to troubled sectors and potential
	losses increased.
Global Financial Interconnectedness: The crisis	Liquidity Shortages: As economic activity
spread rapidly across global financial markets	abruptly contracted, liquidity shortages
due to the interconnectedness of financial	
	emerged in financial markets. This was
institutions and the global nature of financial transactions.	particularly evident in the corporate bond market, where investors faced difficulties in
uansacions.	, , , , , , , , , , , , , , , , , , ,
	buying and selling bonds, leading to
	liquidity crunches and funding challenges
	for businesses.

Lack of Effective Regulation and Oversight:
Regulatory oversight and risk management
measures failed to keep pace with the rapid
expansion of the financial industry and the
growing complexity of financial products.
There was a lack of adequate regulation and
supervision, allowing risky practices to go
unchecked and contributing to the buildup of
systemic vulnerabilities.

Policy Responses and Market Intervention: Governments and central banks implemented various policy measures to mitigate the impact of the crisis. These included fiscal stimulus packages, interest rate cuts, liquidity injections, and asset purchase programs.