

Using Poetry for Economic Analysis

Using Poetry for Economic Analysis:

Economics Meets Literature

By

Ky-Hyang Yuhn

Cambridge
Scholars
Publishing



Using Poetry for Economic Analysis: Economics Meets Literature

By Ky-Hyang Yuhn

This book first published 2023

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Copyright © 2023 by Ky-Hyang Yuhn

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-5275-1968-6

ISBN (13): 978-1-5275-1968-8

CONTENTS

Part 1. The Economics of Crisis and the Crisis of Economics

1	2
Snow Falling in the Village of Chagall: The Aftermath of the COVID-19 Recession	
<Painting> <i>Moi et Le Village</i> (Marc Chagall)	
<Poem> Snow Falling in the Village of Chagall (Kim Choon-soo)	
2	12
The New Millennium and Irrational Exuberance	
3	16
The Global Economic Crisis and the Dark Clouds of Greed	
4	22
The Roaring Twenties and the Great Depression	
5	27
The Tragedies of the Great Depression: Splendor in the Grass	
<Poem> Splendor in the Grass (William Wordsworth)	
6	29
The Two Oil Shocks of the 1970s and Stagflation	
7	35
The 1997 Asian Financial Crisis: They Popped Up the Champagne Bottle Too Early	
<Poem> The Wind Is Blowing (Lee So-ra)	
8	40
Japan's "Lost Two Decades"	

9	45
Abenomics and the Three Arrows	
<Poem> The Arrow and the Song (Henry Longfellow)	
10	54
The Uneasy Alliance of the Eurozone	
<Painting> Europa and the Bull on a Greek Vase	
11	61
The U.S.-China Confrontation and the Thucydides Trap	
<Poem> The Waste Land (T.S. Eliot)	
12	67
Will American-Style Market Capitalism Decline? The Micawber Principle	
13	72
Can the Owl of Minerva Predict an Economic Crisis?	
<Painting> Athena Holding a Helmet and a Spear with an Owl	
<Poem> The Clock of Life (Robert Smith)	
14	77
The Crisis of Economics?	
Part 2. The Market and Capitalism	
1	82
Two Different Views on the Economy	
2	88
Is the Chinese Economy a Socialist Economic System or a Capitalist Economic System?	
3	92
The Market and the ‘Invisible Hand’	
4	97
Market Failures, the Tragedy of the Commons and the Coase Theorem	
5	102
Game Rules of Market Participants	

6.....	108
Opportunity Cost: Bygones Are Bygones	
<Poem> Yesterday (The Beatles)	

Part 3. An Overview of Macroeconomics: Classical and Keynesian Perspectives

Chapter 1. A Self-Adjusting Economy: Classical Economics

1.....	114
Adam Smith and the Birth of Classical Economics	
2.....	116
The Water-Diamond Paradox and Da Vinci's <i>Salvator Mundi</i>	
<Painting> <i>Salvator Mundi</i> (Leonardo Da Vinci)	
3.....	121
The Market Has Self-Correcting Forces	
4.....	125
How Are Output and Employment Determined in the Classical System?	
Supply Determines	
5.....	130
Money as a Veil: Money Has No Effect on Output and Employment	
6.....	134
The Economy through the Lens of the Classical Economist:	
Charlie Chaplin's Quip	
7.....	137
The Role of the Government in the Classical System	
8.....	139
The Sirens' Melliferous Songs and Rules for Monetary Policy	
<Photo> Ulysses and the Sirens (Leon Belly)	
9.....	141
Supply-Side Economics	

Chapter 2. A Government-Connected Economy: Keynesian Economics

1	146
The Legend of Autumn	
<Poem> Autumn Day (Rainer Maria Rilke)	
2	148
The Collapse of the Classical Doctrine and the Birth of Keynesian Economics	
3	151
The Economy through the Lens of the Keynesian:	
<i>Carpe Diem</i> and <i>Memento Mori</i>	
<Poem> O Me! O Life! (Walt Whitman)	
<Movie> Dead Poets Society	
4	154
Aggregate Demand (AD) Matters in the Determination of Output	
5	157
Consumption Is the Largest Component of Aggregate Demand (AD)	
6	162
Investment, Government Purchases, and Net Exports;	
The Rest of the Chariot Wheels	
7	166
How Are Output and Employment Determined in the Keynesian System:	
Demand Determines	
8	171
The Magic of the Economy: The Multiplier Effect	
9	176
There Is No ‘Free Lunch’	
10	179
Effects of Fiscal Policy in the Keynesian System	

11	182
Effects of Monetary Policy in the Keynesian System	
12	185
Rules versus Discretion: The Mississippi River Parable	

Chapter 3. Neoliberalism

1	190
The Reflux of Keynesianism and the Rise of Neoliberalism	
2	193
Reaganomics and Trickle-Down Economics	
3	195
Thatcherism	
<Poem> Little Gidding (T.S. Eliot)	
4	197
<Four Quartets> and <A Late Quartet>	
<Poem> Burnt Norton (T.S. Eliot)	
<Movie> A Late Quartet	
5	200
“Occupy the Wall Street”: The America Fall	

Part 4. Measurement of Macroeconomic Performance: Seeing the Trees for the Forest

1	204
Measuring the Size of an Economy: GDP, GNP, and GNI	
2	206
Measurement of GDP: You Cannot Add Apples and Oranges	
3	209
The Underground Economy and GDP	
4	212
Nominal GDP versus Real GDP	

5	215
A Simple Comparison of Income between 2020 and 1961	
Is like Ignoring Perspective	
6	219
Which Movie Has Grossed the Highest Box Office Earnings?	
7	222
Nominal GDP versus Purchasing Power Parity (PPP) GDP	
8	226
GDP Increases as the Rent Increases but GDP Does Not	
Increase as the House Price Rises	
9	229
GDP as Value Added and Value-Added Tax (VAT)	
10	232
Production and Expenditure Are Two Sides of a Coin	
11	235
Production and Income Are Two Sides of a Coin	
12	238
From Gross Income (GDI or GNI) to Personal Income	
13	241
GDP Does Not Measure Happiness: The Easterlin Paradox	
<Poem> Duino Elegies (Rainer Maria Rilke)	
14	245
In Search of Shangri-La	
<Novel> Lost Horizon (James Hilton)	
 Part 5. Income Inequality and Welfare: The Sphinx's Conundrum	
1	250
The Sphinx's Conundrum and Welfare Issues	
<Painting> <i>Oedipe Explique L'enigme du Sphinx</i>	
(Jean-Auguste-Dominique Ingres)	

2.....	253
What Is Economic Justice?	
<Poem> The People, Oh Yes (Carl Sandburg)	
3.....	257
Piketty's <i>Capital in the Twenty-First Century</i> and the Kuznets Curve	
4.....	264
The Lorenz Curve and the Gini Coefficient	
5.....	270
The World's Billionaires: "Everyone Wants More"	
6.....	274
Which Comes First, Growth or Welfare?	
<Poem> A True Travel (Nazim Hikmet)	
7.....	277
Do More Welfares Require More Taxes? The Eureka of Archimedes	
 Part 6. ..Savings and Investment: The Building Blocks of the Economy	
1.....	282
Savings and the Psalm of Life	
<Poem> A Psalm of Life (Henry Longfellow)	
<Poem> Savings (Toyo Shibata)	
2.....	286
Why Are Statistics on Savings Seesawed?	
3.....	288
Savings Are the Source of Domestic and Foreign Investment	
4.....	293
The Paradox of Thrift	
5.....	297
Chimerica (China-America): China Earns Dollars from the United States, and the United States Borrows Dollars from China	
<Poem> The Flower (Kim Choon-soo)	

6.....	302
Volatility of Investment	

Part 7. Inflation and Unemployment: Two Macroeconomic Diseases

1.....	306
Inflation Is the Thermometer of the Health of an Economy	
2.....	310
The Measurement of Inflation	
3.....	313
The Official Inflation Rate Tends to Overestimate True Inflation	
4.....	316
The Causes and Types of Inflation	
5.....	320
Hyperinflation	
6.....	323
Fear of Deflation?	
7.....	327
Is Zero Inflation Feasible and Desirable?	
8.....	329
Consequences of Inflation	
9.....	332
Inflation and Interest Rates: The Fisher Equation	
10.....	335
Measurement of Unemployment	
11.....	339
The Causes and Types of Unemployment	
12.....	341
The Full-Employment Rate of Unemployment and the Natural Unemployment Rate	

13.....	344
Is Zero Unemployment Feasible and Desirable?	

14.....	346
Economic and Social Costs of Unemployment and the Misery Index	

**Part 8. Low Inflation and Low Unemployment:
Catching Two Hares at Once?**

1.....	350
The Great Debate between Keynesians and Monetarists and Okun's Law	

2.....	355
The Phillips Curve: Tradeoff between Inflation and Unemployment	

3.....	358
Stagflation: The Disappearance of the Phillips Curve	

4.....	361
Friedman's 'Misperception Theory' and the Natural Rate Hypothesis <Painting> Sisyphus (Tiziano Vecelli)	

5.....	368
NAIRU	

6.....	370
The Birth of Monetarism	

7.....	374
Lucas' Rational Expectations Revolution and New Classical Economics	

8.....	379
The Policy Ineffectiveness Theorem and 'Fooling Theory'	

9.....	381
The Keynesian Attack on the Policy Ineffectiveness Theorem: New Keynesian Economics	

Part 9. Money: The Artery of the Economy

1	386
What Is Money? “Too Much Money or Too Little Money, That Is the Question”	
2	390
Stone Money on the Island of Yap	
3	393
Money Is “What Money Does”	
4	396
Evolution of the Monetary System	
5	400
Functions of Money	
6	402
Measurement of Money	
7	407
Can Bitcoin and Other Cryptocurrencies Be Money?	
8	411
The Economics of Gold: Gold and the U.S. Dollar	
9	414
Can We Predict the Future Price of Gold?	

Part 10. Short-Run Economic Fluctuations: The Four Seasons of the Economy

1	418
The Curse of Skyscrapers	
<Poem> Dead Leaves (Jacques Prevert)	
<Poem> Autumn Leaves (Edith Piaf)	
2	423
The Characteristics of a Business Cycle	

3	426
The Pattern of the Business Cycle Has Been Changing	
4	429
The Inflationary Gap and the Recessionary Gap	
5	433
Why Does the Economy Have a Cycle? The Multiplier-Accelerator Model	

Part 11. Long-Run Economic Growth: A Dance Marathon

1	440
Economic Growth and Living Standards: Australia Was the Richest Country 150 Years Ago	
2	443
Ascension of the Asian Dragons	
3	446
Technological Progress Is the Source of Long-term Economic Growth <Poem> A Song of the Japanese Knife (Ouyang Xiu)	
4	450
Solow's Growth Accounting Equation	
5	454
Economic Growth and Living Standards	
6	457
How Could Singapore Catch Up the United States? The Convergence of Living Standards	
7	462
Economic Growth and Population: Malthus, Solow, and Kremer	
8	466
Will the Growth of the Four Asian Tigers Stagnate? From Mount Olympus to the Thessaly Plains?	

Part 12. Monetary Policy and Economic Stabilization

1	470
What Does Economic Policy Aim For?	
2	475
The Magic of Money Creation: Tools of the Magic	
3	479
The Magic of Money Creation: Preliminaries	
4	483
The Magic of Money Creation: The Complete Model	
5	488
The Causes of the Great Depression	
6	490
Monetary Policy Tools: Open Market Operations	
7	493
Monetary Policy Tools: Discount Policy	
8	496
Monetary Policy Tools: Reserve Requirements	
9	500
New Monetary Policy Tools: Quantitative Easing (QE)	
<Poem> The Road Not Taken (Robert Frost)	
10	504
How Does the Central Bank Set the Benchmark Interest Rate (Federal Funds Rate)?	
11	510
The Goldilocks Economy and the Neutral Interest Rate: The Taylor Rule	

Part 13. Fiscal Policy and Economic Coordination

1	518
How Fiscal Policy Differs from Monetary Policy	

2	523
Equitable Taxation: “Pulling the Most Feathers with the Least Screams”	
<Painting> Wife Godiva (John Collier)	
<Painting> The Scream (Edvard Munch)	
3	529
Is a Balanced Budget Necessary and Desirable?	
4	532
Is the National Debt Explosive?	
5	537
Fiscal Deficits and Ricardian Equivalence: “The Buck Stops Here”	
6	541
The Crowding-out Effect versus the Crowding-in Effect	
7	544
Fiscal Deficits and Seigniorage: Windfall Gains to the Government?	
8	547
The Laffer Curve: Do Lower Tax Rates Increase Tax Revenues?	

Part 14. International Trade and Finance:
Sailing Before the Tradewinds

1	552
International Trade and Income	
2	557
The Balance of Payments (BOP)	
3	562
The Current Account versus the Capital Account: <i>Quid Pro Quo</i>	
4	565
How Is the Exchange Rate Measured?	
5	571
The Effective Exchange Rate and the U.S. Dollar Index (USDIX)	

6.....	574
Exchange Rates and Economic Activities	
7.....	578
The Rise and Fall of the Gold Standard	
8.....	582
The Wizard of Oz	
9.....	584
From the Fixed Exchange Rate System to the Floating Exchange Rate System	
10.....	587
Determination of Exchange Rates in the Long Run: Purchasing Power Parity (PPP)	
11.....	591
Purchasing Power Parity and the Big Mac Price Index	
12.....	598
Determination of Exchange Rates in the Medium Run: Business Cycles	
13.....	601
Determination of Exchange Rates in the Short Run: Interest Rate Parity (IRP)	
14.....	606
The Marshall-Lerner Condition and the J-Curve	
15.....	611
The Triffin Paradox and the Confidence Problem	
16.....	613
High Inflation, High Interest Rates, and High Exchange Rates: An Economic Tripledemic?	
Bibliography.....	617

PART 1

THE ECONOMICS OF CRISIS AND THE CRISIS OF ECONOMICS

SNOW FALLING IN THE VILLAGE OF CHAGALL: THE AFTERMATH OF THE COVID-19 RECESSION

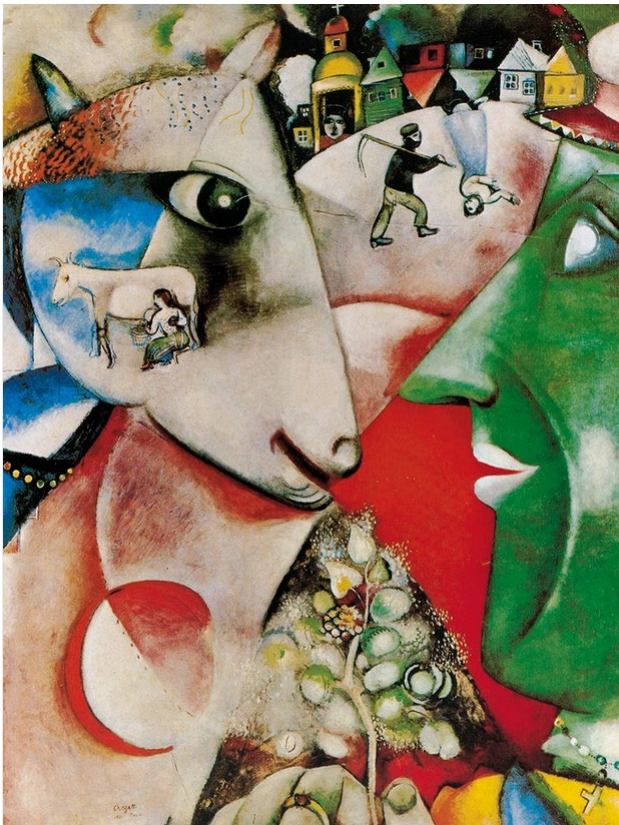
A dark age swooped down on the Earth in 2020 when the coronavirus invaded the planet. Since the first coronavirus case was reported on December 31, 2019 in Wuhan, China, the world has been seized with fear and panic. No human being on the planet could escape from the sphere of influence of the COVID-19 crisis. It is not an exaggeration to say that the COVID-19 pandemic has divided the human history into BC (before the coronavirus pandemic) and AC (after the coronavirus pandemic). As the world was filled with darkness, human activities also froze, and economic activities stopped beginning March 2020: Production slowed down, and consumption cooled down. As the economy stepped back, unemployment rose, and income fell. The economy was faced with a cold wave as if it snowed in the village of Chagall in March.

The poem, <Snow Falling in the Village of Chagall> was published by Choon-soo Kim, a famous Korean poet, in 1969. In that poem, he sings the vitality of spring as follows:

It snows in March in the village of Chagall.
On the temples of a man who stood hoping for spring
New veins tremble.
To the temples of the man who trembles
Rubbing the new veins,
Snow with tens of thousands of wings
Falling from the sky,
Cover the roofs and chimneys in the village of Chagall.
When it snows in March
The color of the winter fruits of the size of a pellet in the village of Chagall
Turns into olive again.
At night,
The women kindle the most beautiful fire of the year in the fireplace.

<Snow Falling in the Village of Chagall> is evaluated as a 'poem of meaninglessness' in that it attempted to convey the vitality of spring as an image rather than as a meaning. In fact, it is known that Kim Choon-soo drew the inspiration for the poem from the painting <Moi et Le Village> (I and the Village) (1911) by Marc Chagall, an expressionist painter. As is well known, Chagall was a surrealist painter. He was born in Russia and went to Paris to study art at the age of 23. In the painting <Moi et Le Village>, you can see the view of the village in the distance, where the head of a large horse, a human face, and a large tree of life painted in red, green, blue, and yellow dominate the canvas. It looks like a fairy tale village landscape that is surreal. Kim Choon-soo may have experimented with a meaningless poem from Chagall's surreal painting that emphasizes images.

<Painting> *Moi et Le Village* (Marc Chagall)



However, it is not right to say that his poem contains only images. Many people may accept snow falling in the spring as a cold snap in the flowering season. But snow falling in the spring may be welcomed by farmers as auspicious snow. When it snows in March, winter plants will bear appetizing fruits that will be colored in olive, and women will light a burning fire to warm the cold night air. We have often been told that when it snows a lot in winter, the land becomes fertile, and farmers produce a good harvest in that year. Freezing cold weather with snow in March does not necessarily bring only coldness and depression. Kim Choon-soo's poem symbolizes the positive image of snow falling in the spring and sings hope.

Shocks such as typhoons and hurricanes can sometimes bring a virtuous cycle to the ecosystem. Some studies have shown that if a typhoon blows hard and stirs the seawater from the bottom, the ecosystem of the sea becomes healthier. This virtuous circle can work not only in natural ecosystems, but also in economic ecosystems. Economic metabolism takes place. When an economic crisis hits, in the short run, it can scratch the economy like a typhoon scratching nature, but in the long run, it can make the economy stronger by strengthening the structure and functioning of the economic system. It is in a similar vein to the saying that "every cloud has a silver lining". At the time of the Great Depression in the 1930s, there were some worries that the market economy capitalist system would end, and that the communist revolution would take place in the United States, but the American-style market economy became even stronger after the Great Depression.

The COVID-19 economic crisis is quite different from the previous economic crises in many respects. What has made the COVID-19 recession distinct is that the world has been growingly integrating into a global village, and the coronavirus pandemic made the whole world stand still in one moment. During the COVID-19 crisis, we were on a path we had never taken before, and the world economy suffered a chain reaction it had never experienced. The world economy is now a structure that prevents any country from escaping this kind of crisis. When the Great Depression broke out in the 1930s, many Asian countries remained quite tranquil. The COVID-19 recession is particularly serious in that the shock wave on the demand side has been intertwined across countries, and the global supply chain has collapsed. Until now, there have been few crises in which both the supply-side and demand-side shocks have hit the economy at the same time. The Great Depression of the 1930s, the Great Recession of 2008, and the Asian financial crisis of 1997 were economic recessions caused mainly by shocks on the demand side of the economy, and the recessions caused by the oil shocks in the 1970s were economic downturns caused by shocks on the supply side of the economy.

<Figure 1.1> University of Michigan Consumer Sentiment Index, 2006~21

Index level: 1966:Q1 = 100

Sources: Haver Analytics; CEA calculations.

Note: The red line denotes start of the pandemic.

As the COVID-19 crisis deepened, the world economy rapidly cooled off. The Consumer Sentiment Index surveyed by the University of Michigan began to nosedive. It dropped from 103 in January 2020 to almost 70 in March 2020. The world economy grew at the annual rate of 3.3% from 2013 to 2019 prior to the COVID-19 crisis, but it contracted by 3.4% in 2020. The U.S. economy was no exception. U.S. GDP decreased by 5.1% in the first quarter of 2020 and by 31.2% in the second quarter. As a matter of fact, U.S. GDP decreased only for two months in March and April 2020, but the decline in GDP in March and April was so large that the quarterly GDP growth rate was -5.1% in the first quarter and -31.2% in the second quarter of 2020. The U.S. unemployment rate soared from 4.4% in March 2020 to 14.7% in April 2020, which was the second highest after the Great Depression. The stock price (Dow Jones Industrial Average) plunged by 37% from its pre-pandemic peak of 29,551 (February 12, 2020) to 18,592 (March 23, 2020). The comparison of U.S. quarterly GDP growth rate between the prior- and post-COVID 19 crisis speaks volumes for the severity of the crisis:

<Table 1.1> U.S. Quarterly Growth Rate During the COVID-19 Crisis

	Q1	Q2	Q3	Q4
2019	2.4%	3.2%	2.8%	1.9%
2020	-5.1%	-31.2%	33.8%	4.5%.
2021	6.3%	6.7%	2.3%	7.0%

Other major economies, except for China, also experienced negative growth in 2020. The euro-zone countries witnessed a decline in their GDP by 6.5% in 2020, which was a sharp decline from the annual growth rate of 1.9% from 2013 to 2019. Japanese GDP increased at the annual rate of 0.6% from 2013 to 2019 but shrank by 4.6% in 2020. The COVID-19 crisis had the most devastating effect on the U.K. economy. The British economy grew at the annual rate of 1.5% from 2013 to 2019, but its GDP decreased by 9.7% in 2020. The Indian economy was also hit hard by the COVID-19 crisis. The Indian economy grew at the annual rate of 6.8% from 2013 to 2019, but its GDP retracted by 7.3% in 2020. In contrast, the Chinese economy grew at the rate of 2.3% in 2020, although its growth rate in 2020 was much lower than the annual growth rate of 4.3% during the 2013-2019 period.

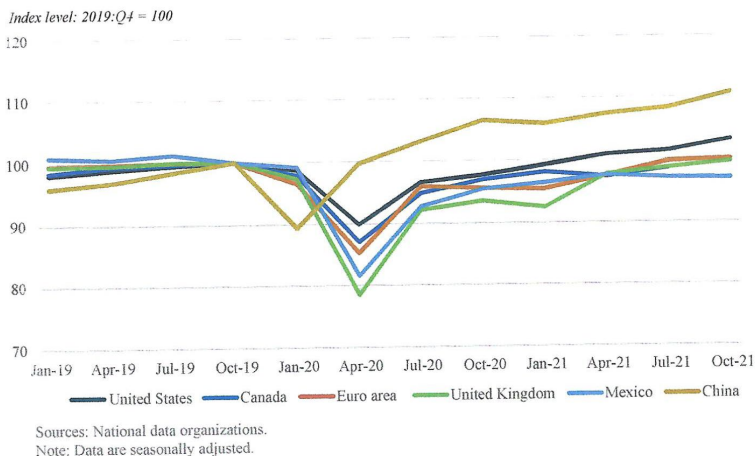
<Table 1.2> Economic Growth Rates and Forecasts for Major Economies

Country ¹⁾	2013~2019		2019		2020		2021	2022 (Forecast: OECD)
	Growth rate (%): Average	Growth rate (%): Average	GDP (in Billions)	Growth rate (%)	GDP (in billions)	Growth rate (%) ²⁾	Growth rate (%)	Growth rate (%):
World	3.3%		\$87,265	2.8%	\$84,298	-3.4	5.6%	4.5%
United States	2.4%		\$21,439	2.3%	\$20,937	-3.4	5.7%	3.7%
Euro Area	1.9%		\$18,705	1.3%	\$17,508	-6.5	5.2%	4.3%
China	4.3%		\$14,140	6.1%	\$14,723	2.3	8.1%	5.1%
Japan	0.6%		\$5,154	0.7%	\$4,975	-4.6	1.6%	3.4%
United Kingdom	1.5%		\$2,879	1.7%	\$2,757	-9.3	7.4%	9.5%
India	6.8%		\$2,936	4.2%	\$2,623	-7.3	8.9%	8.1%
South Korea	2.9%		\$1,647	2.2%	\$1,631	-0.9	4.0%	3.0%

Data: IMF

Interestingly, the world economy, including the U.S. economy, began to revive rapidly in the third quarter of 2020. The world economy could be out of the woods thanks to the act of pair trawling by the government and the central bank in major countries. The U.S. economy began to turn around in the third quarter of 2020, achieving the astonishing growth rate of 33.8% in the third quarter. As a result, the growth rate of the U.S. economy increased from -3.4% in 2020 to 5.7% in 2021. The U.S. unemployment rate also steadily fell, reaching its pre-pandemic level of 4.2% by November 2021. The stock market also regained its pre-pandemic record on September 2, 2021. Most major economies also exhibited a V-shaped recovery. The growth rate of the Chinese economy increased from 2.3% in 2020 to 8.1% in 2021. In particular, the recovery of the Indian economy is very impressive. The Indian economy grew at the rate of 9.4% in 2021, which was a quantum leap from deep negative growth (-7.3%) in 2020. Overall, the world economy grew at the rate of 5.6% in 2021, which was a significant improvement from negative growth (-3.4%) in 2020.

<Figure 1.2> Real GDP by Country



The most important contributor to the rapid recovery of the world economy from the COVID-19 recession was massive spending programs initiated by the governments and central banks in almost all countries. In the United States, the Biden Administration embarked on its major spending program (Infrastructure Bill) on November 15, 2021, which requires the spending of \$1 trillion. Of course, the Trump Administration also spent a lot of money to cope with the COVID-19 crisis.

On the other hand, the Federal Reserve System (for short, the Fed), the central bank of the United States, continued to lower its benchmark interest rate (federal funds rate) from 1.50% to 1.00% by 0.50% point on March 4, 2020 as the COVID-19 pandemic was looming. The Fed lowered the federal funds rate again from 1.00% to 0% by 1% point on March 15, 2020 as the dark cloud of the crisis was on the horizon. The Fed also implemented its Phase 4 quantitative easing (Q4) on March 15, 2020 and purchased \$700 billion worth of long-term government bonds and mortgage-backed securities. The Fed's bond purchase programs poured \$2 trillion into the U.S. economy by the summer of 2020. This is the Fed's fourth quantitative easing policy. The Fed previously implemented the three phases of bond-purchase programs (Q1, Q2, and Q3) during the global economic crisis in 2008. Other countries also poured huge amounts of money into the economy through quantitative easing and government spending programs. This kind of policy mix (combination of monetary and fiscal policies) has proved to be effective in extinguishing the impending fire. However, such a spending spree has boomeranged to the U.S. economy and the world economy in the form of inflation.

There have been four major economic crises in modern times since the Great Depression. These include the Great Depression, the oil recessions in the 1970s and early 1980s associated with the two oil crises in the 1970s, the global economic crisis (also called the Great Recession) during the 2008 ~ 2009 period and the COVID-19 recession in 2020. There is no question that the Great Depression during the 1930s was the worst economic crisis in U.S. history. During the Great Depression, the unemployment rate soared to 24.9% in 1933. In 1929, just before the Great Depression, the unemployment rate was 4.0%. The Great Depression lasted for more than 10 years, leaving a deep scar in American life. Which of the crises was the second worst economic crisis after the Great Depression? In the early stage of the COVID-19 crisis, people were worried that the economic crisis would develop into a major economic crisis that was comparable to the Great Depression.

The COVID-19 crisis was the most severe in terms of the strength of the shock, but the shortest in terms of the duration of the shock. Four months after the occurrence of the COVID-19 crisis, the U.S. unemployment rate rose from 3.5% in February to 14.7% in April 2020, the highest level since March 1933 (24.9%). The unemployment rate during the oil recessions hit 10.8% in November and December of 1982, the third highest unemployment rate in U.S. history. The unemployment rate during the Great Recession climbed to 10.0% in October 2009. Thus, in terms of the level of unemployment, the COVID-19 recession was the second worst recession in the United States.

<Table 1.3> Stock Prices Before and After the Crisis

Recession	Highest before the Crisis	Lowest during the Crisis	Rebound to the Prior Highest
Great Depression	381 (9/3/1929)	40 (8/8/1932)	380 (11/20/1954)
Great Recession	14,066 (10/5/2007)	7,170 (3/12/2009)	14,010 (2/1/2013)
COVID Recession	29,551 (2/12/2020)	18,592 (3/23/2020)	29,101 (9/2/2020)

<Table 1.4> Comparison of Major Recessions in the U.S.

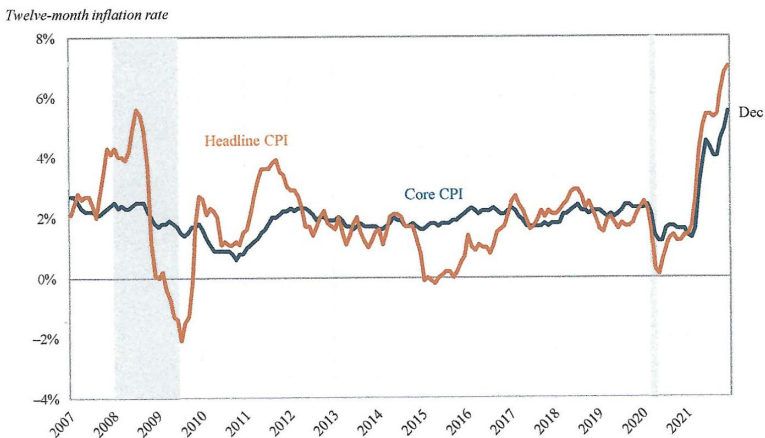
Economic Crisis	Starting & Ending Dates	Recession Duration (Months)	Unemployment Rate (Highest)	Inflation (Highest/Lowest)
Great Depression	8/1929 ~ 3/1933 5/1937 ~ 6/1938	3 years & 7 months 1 year & 1 month	25% (3/1933)	-10.7% (10/1932) -4.1% (10/1938)
Oil Recessions	11/1973 ~ 3/1975 1/1980 ~ 7/1980 7/1981 ~ 11/1982	1 year & 4 months 6 months 1 year & 4 months	9.0% (5/1975) 7.8% (7/1980) 10.8% (11,12/1982)	12.3% (12/1974) 14.8% (3/1980) 11.8% (1/1981)
Great Recession	12/2007 ~ 6/2009	1 year & 6 months	10.0% (10/2009)	-2.1% (7/2009)
COVID 19 Recession	2/2020 ~ 4/2020	2 months	14.7% (4/2020)	7.4% (1/2022)

However, the COVID-19 recession lasted only for two months, whereas the Great Depression lasted for more than 10 years. The oil recession lasted for 38 months (11/1973 ~ 3/1975: 16 months; 1/1980 ~ 7/1980: 6 months; 7/1981 ~ 11/1982: 16 months), and the Great Recession lasted for 18 months. Thus, as far as the duration of recession is concerned, the COVID-19 recession was the shortest. The U.S. stock market also behaved differently during each crisis. It took more than 25 years for the Dow Jones

Industrial Average (DJIA) to recover its previous level during the Great Depression. It took almost six years for the Dow Jones to regain its previous level during the Great Recession. However, it took only seven months for the Dow Jones to reach its previous level during the COVID-19 recession. Thus, the COVID-19 recession could be characterized as a mini-recession. The COVID-19 recession ended up in anticlimax.

The U.S. government and the Fed succeeded in resuscitating the economy from the COVID-19 crisis, but the success met with mixed blessings. As the COVID-19 virus subsided, inflation began to go viral. The U.S. annual inflation rate had never exceeded 2.5% except for 2011 (3.2%) since 2009 until the COVID-19 crisis. The Fed has made every effort to maintain its target inflation rate of 2.0% over the past several decades. However, the annual inflation rate in 2021 soared to 4.7%, and the consumer price index (CPI) rose by 7.5% in January 2022 and by 8.5% in March 2022 compared with a year ago. The March 2022 inflation rate has been the highest in 40 years since 1982. At last, the Fed began to reverse its monetary policy position by raising its policy interest rate from 0% to 0.25% on March 15, 2022. The federal funds rate was raised for the first time in 3 years and 3 months. The last interest rate hike was made on December 20, 2018 when the Fed raised the federal funds rate from 2.00% to 2.25%. The Fed continued its battle against inflation by raising its benchmark interest rate from 0~0.25% (March 15, 2022) to 4.25~4.5% (December 15, 2022) seven times in 2022 alone, and the federal funds rate reached its highest level in 15 years.

<Figure 1.3> Consumer Price Index (CPI) Inflation, 2007 ~ 21



Sources: Bureau of Labor Statistics; National Bureau of Economic Research.

THE NEW MILLENNIUM AND IRRATIONAL EXUBERANCE

January 1, 2000 is a point in the eternal flow of time. However, people were excited to give a special meaning to the first day of the year 2000, which breaks once every millennium. When people celebrated the first day of the year 2000, they would dream of good fortune as the bells of the year-end night sounded. On January 1, 2000, they were bustling, waiting for the bright sun to rise from the horizon. However, they did not see dark clouds coming from the other side of the dazzling sun.

The Information Technology Revolution, which began around the mid-1990s, heightened expectations for the new millennium. The IT Revolution advanced to the realm of the real economy, ringing a fanfare for a new economy. Productivity began to increase noticeably. Workers worked the same hours and produced more output. Companies hired more workers because they were more productive, and the unemployment rate continued to decrease. Inflation fell while wages rose. Workers earned higher wages because they were able to fully compensate for their wage increases with high productivity. Thanks to this virtuous cycle of productivity, the U.S. unemployment rate fell to 3.8% in April 2000. This was the lowest level since the unemployment rate reached 3.5% in December 1969, the last golden era of the U.S. economy.

Now, the U.S. economy saw hope for the future that had never been experienced, such as the coexistence of low unemployment and low inflation. The U.S. economy couldn't have been better. The coexistence of low unemployment and low inflation was called the New Economy. The U.S. economy grew at the full-employment level of output with no inflation during the second half of the 1990s (1996 – 2000). The U.S. full-employment rate of unemployment was estimated to be 5.0% during this period. Here are some statistics: