Abstract

Recently. global economic issues have emphasized the link between inflation, risk-free rates, and stock valuations, drawing attention from financial analysts. Brexit and the COVID-19 pandemic have disrupted the world economy from 2018 to 2022, thus demanding a thorough inspection of global financial structures. With constantly increasing economic uncertainty, this period has influenced investor behavior, central bank policies, monetary values, and interest rates, thus leading to inflationary pressure, lower risk-free rates, and stock price instability. Therefore, this research analyzes the effects of economic challenges on Inflationary pressure, Treasury Bills, and stock valuations. Financial trends and the concepts analysis methodologies are integrated into the study of theoretical frameworks with empirical data throughout this paper. gives summary statistics that reveal insights into the distribution of Stock price valuation, Inflation Rates, and Risk-Free Rates.

The economic issues spanning from the 2019 to 2022 period witnessed fluctuations in inflation rates, risk-free rates, and stock prices reflecting the complex interplay of economic forces, policy responses, and external factors. While 2019 and 2020 had relatively stable inflation rates, 2021 and 2022 experienced significant spikes due to the unforeseen financial crisis experienced internationally. Highlighting the challenges governments face in managing inflationary pressures amidst evolving economic conditions during a pandemic related variables are introduced for evaluation to confirm the connection between them. Having a comprehensive view of the economic and financial market trends is essential for policymakers, businesses, and individuals to formulate effective strategies and policies to navigate the complexities of the global economy mitigate the adverse effects of inflation on livelihoods, and create stability.

When economic activities slow down and financial institutions threaten to dip into recession, the central bank opts to lower interest rates and boost the amount of money flowing into the economy. The U.S. witnessed this happen during the COVID-19 pandemic when the Federal Reserve cut the federal funds target rate to very low rates and kept it there for almost two years in an attempt to salvage what was left of the financial market. That implemented monetary policy choice reduced T-bill yields to historically low levels as a strategy to mitigate risks in association with the stock prices allocated during that period. The stock market was a volatile environment with unpredictable variations during times of economic uncertainty. Based on this study both inflation rates and interest rates are macroeconomic variables that have great impacts on the economy in general and on the stock market in particular including institutions such as the S&P 500 and EURO STOXX 50 as indicated in the models applied to provide proof of their connection. If an economy experiences high inflation rates, then the real value of money declines which implies that there is a lower purchasing power and a change in the Consumer Price Index, less profitability, and a reduction in the real returns on investments. The research includes a consensus about the influence that inflation rate and interest rates have on stock markets while using the Vector Autoregressive (VAR) and Vector Error Correction Models (VECM) applied in this research and coming up with positive results on the two accounts of the two indices S&P 500 and EURO STOXX 50 which were chosen. In summary, the methods used involve a cointegration analysis to examine the relationship between observed stock prices, inflation rates, and real interest rates on a monthly time series. The paper is organized as follows: the first section presents a literature review of the history and relationship between inflation rates, interest rates, and stock prices. The second section discusses the evaluation model, the data and statistical

testing, and section methods. The third section reports the empirical findings. The fourth section concludes.

Key Words: Risk-free Rate, Inflation Rates, Economic Uncertainty, Stock Prices

Table of Contents

List of Tables

List of Figures

List of abbreviations

CCA- Comparable Company Analysis

DCF- Discounted Cash Flow

EU- European Union

GDP- Gross Domestic Product

IMF- International Monetary Fund

UK- United Kingdom

US- United States

CPI- Consumer Price Index

1 Introduction

1.1 Background of the Study

In recent years, there have been dynamic global economic settings with a connection between economic uncertainty, risk-free rates, and company valuations which is a point of focus for many financial analysts. The relationship between the world's economy and company stock valuation requires careful evaluation of the global financial structures and systems. Economic instability in the studied period, from 2018 to 2022, was caused by political issues and occurrences such as Brexit and the COVID-19 pandemic, which distorted the world's economic structure and its anticipated development plans and procedures. These years highlight a period defined by intense economic uncertainty which has a bearing on investors' behavior, central bank policies, and interest rate settings. As uncertainty increases, investors reassess risk and implement plans to have safe investments, leading to a decrease in the risk-free rate, a measure that influences the valuation of entities. The resulting difference in the discount rate on future cash flows reduces present values and causes fluctuations in stock prices. For firms experiencing extreme uncertainty, the consequences extend from valuation measures to revenue creation and cost management. Through a complete evaluation of the influence of economic challenges on inflation rates, risk-free rates, and share price valuation, this research aims to contribute to the transformation of financial modeling and analysis. Combining theoretical examination structures with empirical data will provide valuable insights into the financial landscape of the ever-changing structures of the global economic system.

Global Economic Uncertainty - The global economy refers to the international economic system, which includes economic activities within and between nations, including production, consumption, management, transactions, and trade of commodities in different industries such as technology, health care, telecommunication, and transport. Valuation of the economy is conducted using tools and indicators of economic performance such as gross domestic product (GDP), inflation rates consumption, savings and investment, and international trade in and between nations. The international organizations established to govern the numerous subdivisions of the world's economy, using the economic indicators in their decision-making, are the World Trade Organization, the International Monetary Fund, the United Nations, and the World Bank (Thomas A. Pugel. 2016). They must ensure the stability of all government budgets, prices, the money supply, and the balance of payments, which are essential to the world economy.

Globalization therefore encompasses the relations between countries' economic, political, social, and cultural sectors across the globe over the years and its progressive development. It is brought about by international trade, migration, and technological advancement that has taken place over the years. Globalization has initiated trade integration, allowing goods and services to be transported across borders more easily, mostly through companies that function worldwide. This interconnectedness means that economic changes in one region can change that of its trading partners, thus affecting global supply chains and the economy's steady structural setups. The financial sector being an essential part of globalization involves the incorporation of financial markets across borders which includes the flow of capital, investments, and interconnected banking systems (Robert J. Carbaugh. 2015).

Uncertainty on investment is a function of both the magnitudes and the probabilities of the conceivable surprises. There are several sources of uncertainty, including risk from general economic conditions, such as inflation, interest rates, and exchange rates, none of which can be predicted with certainty (Bodie, Kane, Marcus. 2019.). However, the impact of global economic uncertainty extends past the financial sector to market volatility, fluctuating consumer demand, and supply chain distortion, causing challenges to companies and forcing them to move towards industries that encounter uncertainties. Instability also affects stock prices and investor confidence, thus causing a shift in the way institutions strategize for sustainable growth reforms. Global economic uncertainty was heightened by Brexit and US trade tensions due to the pandemic and war, and their successive shocks were combined to keep uncertainty elevated within the decade selected for the study. The occurring economic issues have had global effects due to their intensity and the economic interdependent system by which firms and nations are economically dependent upon each other. Organizations, and companies worldwide are deeply rooted in the rotation of economic interdependence. This interdependency is in the ability of businesses, nations, or countries to specialize in particular kinds of products based on the availability of resources.

Globalization has been a continuously occurring phenomenon with the technological advance of communications and mass media coupled with the rise of multinational companies has accelerated the process of integration among countries. A recognized measure of globalization is the KOF Index of Globalization, which was introduced in 2002 and has been updated annually since then (R.T. Schaefer. 2006). The Index includes a definition of globalization that states, "the process of creating networks of connections among actors at multi-continental distances, mediated through a variety of flows including people, information and ideas, capital and goods" and conceptualizes globalization as "a process that erodes national boundaries, integrates national economies, cultures, technologies, and governance and produces complex relations of mutual interdependence". To quantify globalization the Index focuses on three dimensions which are the economic dimension amounting from cross-border trade, investment, and revenue flows relative to GDP, and the influence of trade and capital transaction inflows, the Social dimension including cross-border personal associates in the form of tourist flows and size of foreign population, cross-border information flows as measured by access to the Internet, and foreign press products, and measures of cultural affinity to the global mainstream using the level of book imports and exports are also considered. Finally, the political dimension indicates the number of foreign embassies resident in a country, the number of international organizations of which the country is a member, the number of UN peace missions in which the country has engaged, and the number of bilateral and multilateral agreements the country has concluded since 1945 are all included within the index.

Global economic uncertainty was elevated between 2018 and 2022 with the rise from Brexit and United States (U.S.) trade tensions to the pandemic, among other issues. Exploring a time from 2018 to 2022 highlights a period defined by intensified economic challenges and successive shocks due to geopolitical issues between nations which when combined kept global economic instability at a very high level. John Erik Fossum and Christopher Lord (2023) explain the financial effects of Brexit were a significant area of concern during and after the referendum on the United Kingdom's (U.K.) membership of the European Union (E.U.) as stated in the binding government agreements. Most economists believe that Brexit harmed the U.K.'s economy by reducing its real per capita income in the long term, damaging the economy which are issues discussed throughout the paper. In June 2017, by voting, the United Kingdom chose in an election to exit the European Union (E.U.). This action became recognized as Brexit, the blend for Britain's exit from the European Union. The U.K. officially left the E.U. on January 31, 2020, and the economic growth dropped significantly in the first quarter, reaching a low not seen since 2003. The British exit was the withdrawal from the E.U., the economic and policy union of which the U.K. had been a member for several years since 1973. A decision was made that the profits of free trade did not sufficiently counterbalance the expenditures of the free movement of immigration. In favor of leaving, the vote was 17.4 million vs. 16.1 million who voted to remain as part of the E.U. Brexit diminished the growth of business for companies that operate in Europe and U.S. companies that had invested billions in the U.K. Most of these American investment institutions used the U.K. as the entryway to free trade with the E.U. nations. U.K. businesses also invested in the U.S., with several of them being in manufacturing, wholesale trade, and finance. The markets were unprepared for the U.K.'s vote to leave the European Union, and the immediate reaction in the financial markets was a shock with macroeconomic and geopolitical uncertainty. The COVID-19 pandemic also disrupted financial markets and the economy worldwide, prompted significant monetary and fiscal policy interventions, and caught the world by surprise several years after the Global Financial Crisis (GFC) and the Great Recession. The GFC resulted from growth in the housing, mortgage, and financial markets that had been progressive over several years, but the COVID-19 crisis was unprecedented. The impacts of the 2020 crisis on firms and households and the associated uncertainty caused disruptions globally, including the U.S. Treasury market that showed signs of stress in March 2020. Corporate bond markets and money market funds also experienced severe strains, which led to the employment of macro-finance models to evaluate the impact of epidemics. In all sectors and the bearing of policy interventions, empirical papers study the origins and consequences of the disruptions.

Therefore, globalization intensifies the impact of economic shocks because when a country experiences a financial crisis or economic downturn, the shock ripples through interrelated economies especially from countries with great influence over others like America and Europe thus intensifying the instability. While globalization brings benefits such as increased efficiency and access to global markets, it also makes economies more vulnerable and exposed to several risks that are a threat to their development. Globalization presents concerns for policymakers in managing economic stability while considering the complexity of international relations and differing policy priorities among nations which may cause disputes and also hinder effective global cooperation if they are not well addressed. The landscape of the global economy demands effective global economic governance worldwide by the responsible authorities. Institutions such as the International Monetary Fund (IMF) and the World Bank play a crucial role in mitigating the impact of economic shocks based on the financial decisions they make under their jurisdiction. However, the effectiveness of these institutions depends on international