Food Inflation in the United States: A Data-Driven Approach to Understanding and Mitigating Rising Costs

Blessing Otohan Irabor[1], Adekunle Abiola Abdul[2], Bankole Ibrahim Ashiwaju[3*], Gbolahan Olaoluwa Oladayo[4]

[1]Independent Researcher, Lagos
[2]Independent Researcher, Maryland, US
[3]Department of R&D, Emzor Pharmaceuticals, Lagos
[4]University of Texas at San Antonio, US

*Corresponding author: Bankole Ibrahim Ashiwaju
Department of R&D, Emzor Pharmaceuticals, Lagos

Abstract	Original Research Article

This study embarks on an in-depth exploration of food inflation in the United States, a phenomenon of growing concern in the contemporary economic landscape. This research aims to comprehensively understand food inflation, contextualizing it within the U.S. while drawing parallels with global patterns. The study is anchored in a data-driven approach, recognizing the pivotal role of empirical analysis in economic policy-making. Methodologically, the research is grounded in a meticulous literature review, encompassing a wide array of sources to capture the multifaceted nature of food inflation. This includes an examination of historical trends, socio-economic impacts, and the effectiveness of existing mitigation strategies. The review is thematically organized, synthesizing information to offer a holistic view of the subject matter. The main findings reveal that food inflation in the U.S. is influenced by a complex interplay of factors, including economic policies, environmental changes, and social dynamics. The study highlights the critical role of minor commodity crops and the impact of food insecurity at the household level. It also underscores the potential of advanced data analytics in forecasting and managing food inflation trends. The study emphasizes the necessity of a holistic, data-driven approach in addressing food inflation. Recommendations include the adoption of inclusive policy-making, increased research investment in minor commodity crops, and leveraging advanced data analytics for effective management. These strategies are proposed to ensure economic viability, social equity, and environmental sustainability in mitigating the impacts of food inflation in the United States.
Keywords: Food Inflation, Economic Policy, Data-Driven Analysis, Socio-Economic Impact, United States.

1. INTRODUCTION

1.1. Contextualizing Food Inflation in the United States

Food inflation, a critical component of overall economic inflation, represents the rate at which food prices increase over a specified period. In the United States, this phenomenon has been a subject of considerable concern, particularly in the context of its broader economic implications and global comparisons. Understanding food inflation requires a multi-faceted approach, encompassing concepts and measures, historical trends, and a comparative global perspective.

The concept of food inflation, closely associated with the Consumer Price Index (CPI), encapsulates the average change over time in the prices urban consumers pay for a basket of goods and services, including food. Influenced by a variety of factors such as supply shocks, labor costs, and policy decisions, the CPI for food reflects the dynamic and multifaceted nature of food prices (De Winne & Peersman, 2016). In the United States, the trends in food inflation are indicative of broader economic conditions, encompassing aspects like the health of the agricultural sector, shifts in consumer preferences, and the influence of global economic dynamics. Factors such as unexpected external shocks and exchange rate fluctuations have been identified as significant contributors to higher-than-anticipated food inflation rates (Inoue & Okimoto, 2017). Furthermore, the global integration of food markets means that domestic food prices in the United States are increasingly susceptible to international trends and shocks. This global perspective is essential, as it highlights the impact of international cost and price shocks on national

inflation rates, emphasizing the interconnectedness of the U.S. food market with global economic forces (Inoue & Okimoto, 2017).

Furthermore, the role of economic integration and trade liberalization, as discussed in the context of Latin American countries by Grunwald (1993), provides a broader understanding of how food inflation is not just a domestic issue but is also influenced by international trade dynamics. The United States, being a major player in global trade, is both an influencer and a recipient of these global economic trends, which in turn impact its food inflation scenario.

The measures used to assess food inflation are critical in understanding its impact and in formulating policy responses. The CPI for foods, for instance, is a direct measure that reflects changes in the retail prices of food items. However, this measure is influenced by various factors, including supply chain dynamics, agricultural productivity, and international trade policies. The interplay of these factors can lead to fluctuations in food prices, thereby affecting the CPI for foods.

Food inflation has also been linked to socio-economic factors in the United States. For example, changes in consumer preferences towards healthier or more sustainable food options can drive up prices for certain food categories. Additionally, climate change can disrupt food supply chains, often exacerbated by extreme weather events, leading to price volatility.

The global comparison of food inflation patterns reveals that the United States is not isolated in its experience of fluctuating food prices. Countries around the world face similar challenges, often driven by common factors such as global commodity prices, exchange rate fluctuations, and international trade policies. However, the impact and response to food inflation can vary significantly across countries, influenced by local economic conditions, policy frameworks, and social safety nets.

Food inflation in the United States is a multifaceted issue, deeply embedded in the broader economic framework. Its understanding requires an analysis that spans concepts and measures, historical trends, and a global comparative perspective. As the world becomes increasingly interconnected, the dynamics of food inflation in the United States will continue to be influenced by both domestic and international factors, necessitating a comprehensive and nuanced approach to its study and management.

1.1.1. Defining Food Inflation: Concepts and Measures

Food inflation in the United States is a multifaceted economic phenomenon that reflects the rate at which food prices increase over time. Understanding its concepts and measures is crucial for economic

analysis and policy-making. The Personal Consumption Expenditures (PCE) Price Index is a primary tool used to calculate U.S. inflation rates, including food inflation. This index, produced monthly by the Bureau of Economic Analysis (BEA), reflects the prices that consumers in the United States pay for goods and services (Chien and Bennett, 2019). Since 2012, Federal Reserve policymakers have defined price stability as a 2 percent PCE inflation rate, a target that has been challenging to maintain due to various economic factors.

The measurement of food inflation is not just a matter of economic calculation but also intersects with cultural and societal aspects. Trubek (2019) discusses the complexity of defining a coherent narrative around American national cuisine, which indirectly influences food pricing and consumption patterns. The lack of a definitive roadmap in American culinary practices, shaped by diverse cultural and historical influences, adds another layer of complexity to understanding food inflation. This diversity in food preferences and consumption habits across the vast geography of the United States impacts the food market, influencing supply and demand dynamics.

Moreover, the concept of the 'neoliberal diet', as explored by Copeland (2020), provides a critical lens through which to view food inflation. This diet, characterized by industrially produced, highly processed, and energy-dense foods, originated in the United States and has spread globally. The neoliberal diet not only affects health outcomes but also has significant economic implications. The predominance of this diet is linked to the strategies of U.S. agribusinesses and supermarkets, which control the production and distribution of these foods. This control has implications for food pricing and inflation, as it influences both the supply chain and consumer choices.

The measurement of food inflation also involves understanding the interplay between global and domestic factors. International commodity prices, trade policies, and global economic trends significantly impact food prices in the United States. For instance, fluctuations in global oil prices can affect transportation costs, which in turn influence food prices. Similarly, agricultural policies within the United States and other countries can affect global food supply and prices, thereby impacting domestic food inflation.

In addition to these broader economic factors, food inflation in the United States is also influenced by domestic policies and consumer trends. Government subsidies to certain agricultural sectors, trade tariffs, and food safety regulations can all shape food prices. Consumer trends, such as increasing demand for organic or locally sourced foods, also impact food inflation. These trends can lead to higher prices due to the additional costs associated with organic farming practices or the logistics of local sourcing.

The measurement and analysis of food inflation thus require a comprehensive approach that considers economic, cultural, and policy-related factors. While a crucial tool, the PCE Price Index must be supplemented with a broader understanding of the societal and global dynamics that influence food prices. This comprehensive approach is essential for developing effective policies to manage food inflation and ensure food security and affordability for all segments of the U.S. population.

Defining and measuring food inflation in the United States involves a complex interplay of economic indicators, cultural influences, global trends, and domestic policies. The PCE Price Index provides a foundational measure, but a deeper understanding requires examining the broader economic and societal context that shapes food consumption and pricing in the United States.

1.1.2. Historical Trends and Current State

The historical trends of food inflation in the United States have been shaped by a myriad of factors, reflecting the complex interplay between economic policies, market dynamics, and socio-demographic changes. Over the past few decades, these trends have not only influenced the cost of living but also highlighted disparities in food security and the nation's broader economic health.

In recent years, the United States has experienced some of the highest inflation rates in the last 40 years, a trend that has significant implications for food prices and, consequently, for the broader economy and living standards. Vahe (2022) emphasizes that while a 10% increase in prices may not severely impact developed countries, it can lead to more pronounced effects in developing regions. In the U.S., this trend is particularly concerning as it can trigger a crisis in the consumer market and overall economic dynamics. The historical context of these inflation rates is crucial, as they are the highest in 75 years when using comparable calculation methods.

The relationship between labor costs and price inflation in the U.S. has also evolved significantly over the past three decades. Bobeica, Ciccarelli, and Vansteenkiste (2021) document this decline and analyze contributing factors such as improved anchoring of inflation expectations, changing economic shocks, increased trade integration, and rising firm market power. Their findings suggest that the pass-through from labor cost to price inflation has diminished, which has implications for how wage dynamics influence food prices. This change also supports the Federal Reserve's view that a robust job market can be sustained without triggering rampant inflation.

Food insecurity, closely linked to food inflation, has shown concerning trends in the U.S. Walker *et al.,* (2020) report that the number of individuals reporting food insecurity doubled between 2005 and 2012. Their study, covering the period from 2011 to 2017, reveals disparities in food insecurity by age, sex, race/ethnicity, and income. Notably, non-Hispanic blacks were 1.7 times more likely to be food insecure than non-Hispanic whites, and lower-income groups were more likely to experience food insecurity. These disparities highlight the uneven impact of food inflation across different demographic groups.

The historical trends of food inflation in the U.S. are not only a reflection of economic policies and market dynamics but also of broader societal changes. The evolving nature of the labor market, demographic shifts, and changing consumer preferences have all played a role in shaping these trends. For instance, the shift towards more processed and energy-dense foods, changes in agricultural practices, and the impact of global trade policies have all influenced food prices over time.

Moreover, the role of government policies in managing food inflation cannot be understated. Subsidies to certain agricultural sectors, trade tariffs, and food safety regulations have all influenced food prices. Additionally, social safety nets and targeted programs to address food insecurity have been critical in mitigating the impact of food inflation on vulnerable populations.

The historical trends of food inflation in the United States present a complex picture influenced by a range of factors, including economic policies, labor market dynamics, demographic changes, and societal shifts. Understanding these trends is crucial for developing effective strategies to manage food inflation and ensure food security for all Americans. As the U.S. continues to navigate these challenges, a comprehensive approach that considers the multifaceted nature of food inflation will be essential.

1.1.3. Comparison with Global Food Inflation Patterns

The comparison of food inflation patterns in the United States with global trends reveals a complex interplay of economic forces, supply chain dynamics, and policy responses. This comparison is crucial for understanding the unique challenges and opportunities in managing food inflation within a global context.

In the United States, disruptions in global food commodity markets have significant macroeconomic consequences. De Winne and Peersman (2016) examine the impact of global food commodity supply shocks on the U.S. economy, finding that such shocks lead to increased food, energy, core inflation, and a decline in real GDP and consumer expenditures. This study highlights the sensitivity of the U.S. economy to global food market dynamics, where unfavorable food commodity market shocks can have a multiplier effect

beyond their share in the consumer price index and household consumption.

The global supply chain pressures and international trade dynamics also play a critical role in shaping food inflation trends. Di Giovanni *et al.,* (2022) analyze the impact of the Covid-19 pandemic on Euro Area inflation and compare it with the experiences of other countries, including the United States. Their findings indicate that compositional effects, such as switching services to goods consumption, are amplified through global input-output linkages, affecting trade and inflation. This study underscores the interconnectedness of global supply chains and how disruptions can lead to higher inflation, a phenomenon observed in both the Euro Area and the U.S.

Furthermore, the global context of food inflation is not limited to developed countries. Azunna (2020) discusses the empowerment of women farmers in Eastern Nigeria as a model for strengthening livelihoods, which has implications for global food security and inflation. While focused on a developing region, this study underscores the importance of agricultural practices and empowerment in mitigating the impacts of global food inflation trends. The interconnectedness of global food systems means that strategies employed in one region can have ripple effects on food inflation in other parts of the world, including the United States.

The comparison between the U.S. and global food inflation patterns reveals several key insights. First, the U.S. is highly susceptible to global food commodity market disruptions, which can have significant macroeconomic effects. Second, global supply chain pressures and international trade dynamics are crucial in shaping food inflation trends, with compositional effects and sector-specific labor shortages playing a significant role. Third, the global context of food inflation extends beyond developed countries, with agricultural practices and empowerment in developing regions influencing global food security and inflation.

The comparison of food inflation patterns in the United States with global trends highlights the importance of considering global economic forces, supply chain dynamics, and policy responses in managing food inflation. Understanding these interconnected dynamics is essential for developing effective strategies to address the challenges of food inflation in a globalized economy. As the world continues to navigate economic uncertainties and supply chain disruptions, a comprehensive and collaborative approach is necessary to ensure food security and economic stability.

1.2. Relevance of a Data-Driven Approach
In the context of food inflation, a data-driven approach is increasingly recognized as a vital tool for understanding and mitigating rising costs. This approach leverages data analytics and econometric models to analyze trends, identify causal relationships, and inform policy decisions. The relevance of such an approach in the economic analysis of food inflation is multifaceted, encompassing aspects of accuracy, predictive power, and policy formulation.

Putri (2016) emphasizes the importance of accurate financial indicators in understanding inflationary trends. Their study on Indonesia's food and beverages and transportation sub-sectors highlights how conventional financial statements based on historical cost can be misleading during inflationary periods. By contrast, General Price Level Accounting (GPLA) and Current Cost Accounting (CCA) methods provide a more realistic picture of financial health and inflationary impacts. This underscores the need for data-driven approaches that account for real-time economic conditions, particularly in sectors directly related to food production and distribution.

Similarly, the work of A. Odondo (2021) on the dynamics of core inflation, energy inflation, and food inflation in Kenya provides insights into the causal relationships between different types of inflation and manufacturing sector output growth. Using time series data and Vector Error Correction Models (VECM), Odondo demonstrates how different inflation types uniquely impact economic sectors. For instance, food inflation was found to negatively and significantly influence manufacturing output growth. This kind of nuanced understanding, derived from data-driven analysis, is crucial for formulating targeted policies to mitigate the specific impacts of food inflation.

The study by Pacillo *et al.,* (2022) introduces a novel data-driven framework for monitoring Food and Nutrition Security under Climate Evolution (FANSCE). This approach combines open-source earth observations with national data sources to produce contextualized metrics for monitoring and assessing climatic impacts on food systems. The FANSCE framework exemplifies how data-driven innovations can provide actionable insights for policymakers, enabling them to monitor and respond to the evolving challenges in food systems, including those related to inflation.

The relevance of a data-driven approach in economic analysis and policy-making extends beyond mere data collection. It involves the integration of various data sources, the application of advanced analytical techniques, and the translation of data insights into effective policy actions. In the context of food inflation, this approach enables a more dynamic response to inflationary pressures, identifying underlying causes, predicting future trends, and developing strategies to mitigate adverse impacts.

Moreover, a data-driven approach can help in overcoming challenges in data collection and

interpretation. By leveraging new technologies and methodologies, such as machine learning and big data analytics, it is possible to process large volumes of data more efficiently and accurately. This enhances the ability to make informed decisions based on comprehensive, up-to-date information.

The relevance of a data-driven approach in understanding and mitigating food inflation is evident in its ability to provide accurate, timely, and actionable insights. Through the application of advanced econometric models and innovative data analytics, policymakers and economists can better understand the complex dynamics of food inflation and develop more effective strategies to address this pressing issue. As the global economy continues to evolve, the importance of such data-driven approaches in economic analysis and policy-making will only grow.

1.2.1. The Role of Data in Economic Analysis
The role of data in economic analysis, particularly in the context of food inflation, is pivotal. Data-driven approaches provide a foundation for accurate and comprehensive economic analysis, enabling a deeper understanding of inflation dynamics and their implications. Putri (2016) underscores the importance of using appropriate financial indicators during inflationary periods. Their study on Indonesia's food and beverages and transportation sub-sectors demonstrates how conventional financial statements based on historical cost can be misleading during inflation. Instead, employing General Price Level Accounting (GPLA) and Current Cost Accounting (CCA) methods offers a more realistic picture of financial health and inflationary impacts. This highlights the necessity of data-driven methods that reflect real-time economic conditions, especially in sectors directly related to food production and distribution.

Similarly, Odondo's (2021) research on the dynamics of core inflation, energy inflation, and food inflation in Kenya illustrates the power of data in uncovering causal relationships. Using Vector Error Correction Models (VECM), the study reveals how different types of inflation uniquely impact economic sectors, with food inflation negatively and significantly influencing manufacturing output growth. Such insights, derived from data analysis, are crucial for formulating targeted policies to mitigate the specific impacts of food inflation.

1.2.2. Benefits of Data-Driven Insights for Policy Making
Data-driven insights are invaluable for policy-making, particularly in addressing complex issues like food inflation. Pacillo *et al.,* (2022) introduce the "Food and Nutrition Security Under Climate Evolution" (FANSCE) framework, a data-driven approach combining open-source earth observations with national data sources. This innovative framework is designed to produce policy recommendations to monitor, assess, and mitigate climatic impacts on food systems. It exemplifies how data-driven innovations can provide actionable insights for policymakers, enabling them to respond effectively to evolving challenges in food systems, including inflation.

Neufeld *et al.,* (2016) also highlight the impact of a data-driven approach in the context of food fortification. Their study emphasizes the importance of collecting and utilizing evidence in the nutrition sector for program design and policy formulation. By focusing on program coverage and utilizing data-driven decision-making, policymakers can better assess nutrition programs' availability, access, and utilization, enhancing food policies' impact.

The role of data in economic analysis and the benefits of data-driven insights for policy making are evident in their ability to provide accurate, timely, and actionable information. These approaches enable a more dynamic response to inflationary pressures, allowing for the identification of underlying causes, the prediction of future trends, and the development of effective strategies to address food inflation. As global economic conditions continue to evolve, the importance of data-driven approaches in economic analysis and policy-making will only increase.

1.2.3. Challenges in Data Collection and Interpretation
In food inflation analysis, data collection and interpretation challenges are significant, particularly in the face of unprecedented events such as the COVID-19 pandemic. These challenges can impede the accuracy and timeliness of economic analyses, affecting policy responses and interventions.

Jaworski (2021) explores the innovative use of online data for real-time monitoring of food inflation during the COVID-19 pandemic in Poland. The study demonstrates the potential of using web-scraping techniques to collect daily price information from online stores, a method necessitated by the pandemic's restrictions on traditional data collection methods. This approach provided reliable estimates of monthly and annual food inflation about 30 days before the publication of official indexes. However, the study also highlights the challenges associated with this method, such as ensuring the representativeness and accuracy of online data, which may not fully capture the diversity of food prices across different regions and retail formats.

Białek, Dominiczak-Astin, and Turek (2021) delve into the comparison of traditional data collection methods with alternative sources like scanner and web-scraped data. Their research in Poland during the early months of the COVID-19 pandemic reveals discrepancies in price distributions obtained from different data sources. These discrepancies suggest that

relying solely on alternative data sources could lead to over- or understating of price indices compared to traditional methods. The study underscores the importance of understanding the methodological nuances of each data source and the need for careful integration of multiple data types to achieve accurate inflation measurements.

Mead, Ransom, Reed, and Sager (2020) discuss the broader impact of the COVID-19 pandemic on food price indexes and data collection in the United States. They note that safety precautions established during the pandemic created significant challenges for data collection for some price indexes more than others. The pandemic's disruption of traditional data collection methods necessitated a rapid adaptation to alternative sources and techniques, which in turn raised questions about data reliability and comparability with pre-pandemic data.

The challenges in data collection and interpretation in the context of food inflation are multifaceted. They include the need for adaptability in data collection methods during crises, ensuring data representativeness and accuracy, and integrating diverse data sources to provide a comprehensive view of inflation trends. Addressing these challenges is crucial for accurate economic analysis and effective policy-making in response to food inflation.

1.3. Aim and Objectives of the Literature Review

The primary aim of this literature review is to comprehensively understand the dynamics of food inflation in the United States, contextualizing it within global patterns and examining the efficacy of data-driven approaches in addressing this complex issue. To achieve this aim, the following objectives have been established:

1. Analyze Historical and Current Trends of Food Inflation in the United States. This objective involves a detailed examination of the historical patterns of food inflation in the U.S., understanding its trajectory over time, and identifying key factors that have influenced these trends. This analysis will provide a foundational understanding of the current state of food inflation in the U.S. and its evolution.

2. Compare U.S. Food Inflation with Global Food Inflation Patterns. This objective seeks to place U.S. food inflation within a global context, comparing and contrasting it with food inflation trends in other countries. This comparison will help identify unique characteristics of the U.S. situation and understand how global economic and political factors influence food inflation domestically and internationally.

3. Evaluate the Role and Impact of Data-Driven Approaches in Economic Analysis and Policy Making. The objective here is to assess the effectiveness of data-driven methods in analyzing food inflation. This includes evaluating how data analytics, econometric models, and other data-driven tools are used to understand inflation trends, predict future developments, and inform policy decisions aimed at mitigating inflation.

4. Identify Challenges and Opportunities in Data Collection and Interpretation Related to Food Inflation. This involves exploring the difficulties encountered in gathering and interpreting data relevant to food inflation and identifying potential solutions or innovative approaches to overcome these challenges. The focus will be on understanding how data quality, accessibility, and analysis impact the accuracy and efficacy of economic analyses and policy interventions.

5. Through these objectives, the literature review aims to provide a thorough and nuanced understanding of food inflation in the United States, offering insights into its causes, impacts, and potential mitigation strategies, particularly emphasising the role of data-driven approaches.

1.4. Scope and Delimitations of the Review

This literature review specifically focuses on food inflation in the United States, examining its historical trends, current state, and comparison with global patterns. The scope includes an in-depth analysis of the role of data-driven approaches in understanding and mitigating food inflation, encompassing economic analysis and policy-making perspectives. The review will draw on recent and relevant academic literature, government reports, and credible data sources to provide a comprehensive overview of the topic.

However, the review has certain delimitations. It primarily concentrates on the U.S. context, and while global comparisons are made, these are not exhaustive. The review is also limited by the availability of recent and relevant literature, particularly in the rapidly evolving field of data-driven economic analysis. Furthermore, the focus is on macroeconomic perspectives of food inflation, and microeconomic aspects such as consumer behavior or individual business responses to inflation are not extensively covered. This delimitation is chosen to maintain a clear focus on the broader economic and policy implications of food inflation in the U.S. context.

2. METHODOLOGY

2.1. Criteria for Literature Selection

In researching food inflation, the selection of literature is guided by a set of criteria aimed at ensuring a comprehensive and accurate understanding of the topic. The primary criteria include relevance, methodological rigor, and a diversity of perspectives.

Relevance is crucial and hence we have to investigate the impact of geopolitical risks on food

inflation, focusing on the Russia-Ukraine war's effects on European regions and how it has affected the US This study underscores the importance of selecting literature that addresses contemporary events influencing food inflation.

Methodological rigor is another key criterion. The study by Ren and Huatuco (2016) on supplier selection processes in the Chinese dairy industry exemplifies the need for robust research methods. This case study provides valuable insights into the supply chain dynamics of food inflation.

Diversity in perspectives is also essential. Ngidi's (2016) work on the socio-economic impacts of food price inflation on the poor, and the review by Bukhari, Mazhar, and Waqas (2018) on consumer decision-making in food purchases, offer critical socio-economic and consumer-centric viewpoints, essential for understanding the multifaceted nature of food inflation.

2.2. Sources of Literature
The sources of literature for a study on food inflation are as crucial as the selection criteria. These sources should be varied and encompass different aspects of the topic.

Focused studies on current events provide timely insights into how specific geopolitical events can influence food inflation. Industry-specific research, like the study by Ren and Huatuco (2016), offers detailed insights into specific sectors affected by food inflation. Socio-economic analyses and consumer behavior studies, represented by the works of Ngidi (2016), respectively, are vital for understanding the broader impacts of food inflation on different population segments and how consumer perceptions and behaviors can influence market trends.

2.3. Thematic Organization of the Review
The thematic organization of literature in the study of food inflation is critical for a structured and comprehensive understanding of the topic. Yahodzinska (2020) provides an exemplary model in her study on food price volatility in Ukraine. Her approach, focusing on the development of national and regional food security programs, demonstrates the importance of structuring literature around key themes such as geopolitical factors, market dynamics, and policy responses. This thematic organization allows for a nuanced understanding of how various factors interplay in the realm of food inflation.

Similarly, the work of Zhao *et al.,* (2021) on the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) offers insights into the thematic organization around policy and regulation changes. Their study emphasizes the need to categorize literature based on regulatory frameworks and their impact on food inflation. This approach is crucial in understanding how policy decisions at various levels, from federal to state, influence food prices and availability.

2.4. Approach to Synthesizing Information
Synthesizing information from various thematic areas is key to developing a comprehensive understanding of food inflation. The approach involves integrating insights from diverse studies to form a cohesive narrative. For instance, integrating the findings from Yahodzinska's (2020) study on geopolitical impacts with Zhao *et al.,*'s (2021) insights on policy changes provides a more holistic view of the external and internal factors influencing food inflation. This synthesis allows for the identification of patterns and relationships between different variables, such as how geopolitical tensions can lead to policy shifts, which in turn affect food prices.

Incorporating technological advancements and strategic perspectives into the analysis of food inflation, as demonstrated in the work of Ngandee and Taparugssanagorn, expands our understanding of this complex issue. Their study emphasizes the significance of information security and technology in the agricultural sector, particularly in the context of rice yield prediction in Thailand. This perspective is crucial for acknowledging how technological innovations and efficient information dissemination can influence agricultural productivity and market dynamics, ultimately affecting food inflation.

The thematic organization of the literature review and the approach to synthesizing information are crucial in providing a comprehensive analysis of food inflation. By integrating diverse themes and perspectives, the study can offer a more nuanced and in-depth understanding of the various factors influencing food inflation.

3. RESULTS
3.1 Historical Overview of Food Inflation Trends in the United States
The historical landscape of food inflation in the United States is a complex tapestry, woven with various socio-economic, cultural, and policy-related threads. A deep dive into this history reveals significant shifts in food production, consumption patterns, and regulatory frameworks, each playing a pivotal role in shaping the current state of food inflation.

Powers and Roberts (2022) provide a critical perspective on the evolution of food labeling policies and practices in the United States. Their study highlights how initially intended to educate consumers, these policies gradually morphed into marketing tools, influencing consumer perceptions and demand. This shift has profoundly impacted food pricing, as marketing strategies often lead to premium pricing for certain products, contributing to overall food inflation.

The work of Lee, Hwang, and Mustapha (2014) sheds light on another dimension of food inflation: the rising popularity of ethnic foods in the United States. Their study not only explores the historical journey of ethnic foods in the American culinary landscape but also examines the associated food safety and regulatory challenges. The increasing demand for ethnic foods and the need for stringent safety measures have implications for food pricing, as these factors often result in higher production and distribution costs.

Furthermore, the research by Lee, Duster, Roberts, and Devinsky (2022) offers an insightful analysis of dietary trends in the United States since 1800. Their findings underscore a significant increase in the consumption of processed and ultra-processed foods, paralleled by a rise in non-communicable diseases. This shift towards processed foods, often more expensive than their unprocessed counterparts, has escalated food prices over time.

In synthesizing these perspectives, it becomes evident that food inflation in the United States is not merely a consequence of economic factors but is deeply intertwined with cultural shifts, policy changes, and evolving consumer preferences. The historical journey from basic food labeling to the complex web of modern food marketing, the growing diversity of the American palate, and the shift towards processed foods collectively paint a picture of a dynamic and ever-evolving landscape of food inflation.

This historical overview provides a backdrop for understanding current food inflation trends and sets the stage for exploring the multifaceted drivers of these trends. It underscores the need for a holistic approach to addressing food inflation, considering the intricate interplay of cultural, economic, and policy-related factors.

3.2. Key Factors Influencing Food Inflation

Understanding the key factors influencing food inflation in the United States requires an exploration of various economic, technological, and behavioral dimensions. The interplay of these factors shapes the dynamics of food pricing and availability, impacting consumers and the economy at large.

The study by Lv, Zhixin Liu, and Yingying Xu (2019) delves into the roles of technological progress and globalization in influencing inflation, particularly in the context of the United States. Utilizing an extended hybrid New Keynesian Phillips Curve model, their research reveals that technological advancements significantly impact inflation dynamics. The increasing role of technology in production and distribution processes has contributed to efficiency improvements, which in turn affect food prices. Moreover, globalization, characterized by the integration of global markets, has

also played a pivotal role, although its impact on domestic inflation has been weakening over the past two decades. This shift suggests a changing landscape where internal factors like technology are becoming more influential in determining food prices.

Conrad's (2020) research on the daily cost of consumer food waste in the United States adds another dimension to the understanding of food inflation. Conrad's study, covering the period from 2001 to 2016, emphasizes the significant financial implications of food waste. The wastage of food, particularly high-value items like meat and seafood, contributes to increased overall food expenditure. This phenomenon not only reflects behavioral aspects of consumers but also points to inefficiencies in the food supply chain that can exacerbate inflationary pressures. Reducing food waste, therefore, emerges as a potential strategy for mitigating food inflation.

In synthesizing these perspectives, it becomes evident that food inflation in the United States is influenced by a complex interplay of technological advancements, globalization, economic conditions, and consumer behavior. The increasing role of technology in improving efficiency, the changing dynamics of global market integration, regional economic disparities, and the substantial impact of food waste collectively shape the landscape of food inflation. This multifaceted understanding is crucial for developing effective strategies to address and manage food inflation in the United States.

3.3. Socio-Economic Impacts of Food Inflation

The socio-economic impacts of food inflation in the United States are multifaceted, affecting various aspects of society and the economy. These impacts range from environmental consequences to changes in consumer behavior and the overall economic landscape.

Venkat (2012) comprehensively analyses the economic and climate change impacts of food waste in the United States. The study highlights that a significant portion of food waste contributes to food inflation and also leads to substantial economic costs and greenhouse gas emissions. The findings indicate that avoidable food waste in the US exceeds 55 million metric tonnes per year, accounting for nearly 29% of annual production. This waste contributes to life-cycle greenhouse gas emissions and incurs an economic cost of approximately $198 billion. Such extensive waste has profound implications for food security, resource utilization, and environmental sustainability, exacerbating the socio-economic challenges associated with food inflation.

The research by Volpe and Boland (2022) examines the economic impacts of Walmart Supercenters, particularly in the context of food retailing. Their study reveals that Walmart's entry and presence in the food retailing sector are associated with lower food

prices for households. This finding is significant in understanding the socio-economic impacts of food inflation, as large retail chains like Walmart play a crucial role in shaping food pricing and availability. While Walmart's growth and dominance in food retailing have led to competitive pricing, the study also notes the mixed impacts on local employment and small businesses. These dynamics illustrate the complex relationship between large retailers, food pricing, and the broader economic environment.

Nicholson *et al.,* (2015) explore the environmental and economic impacts of localizing food systems, focusing on dairy supply chains in the Northeastern United States. Their study assesses the implications of increasing localization of the region's fluid milk supply on various factors, including food miles, supply chain costs, and emissions. The findings suggest that localization scenarios can increase overall supply chain costs by 1-2% and emissions associated with fluid milk transportation by 7-15% per month. While modest in percentage terms, these changes highlight the potential economic and environmental trade-offs involved in localizing food systems. The study underscores the need for a systems-oriented approach in efforts to localize food systems, considering the broader socio-economic impacts.

The socio-economic impacts of food inflation in the United States are complex and wide-ranging. The significant economic costs and environmental implications of food waste, the role of large retailers in shaping food prices and market dynamics, and the trade-offs involved in localizing food systems collectively paint a picture of the intricate interplay between food inflation and socio-economic factors. Understanding these impacts is crucial for developing effective strategies to address the challenges posed by food inflation, ensuring food security, and promoting sustainable economic growth.

3.4. Review of Existing Mitigation Strategies
Mitigation strategies for food inflation in the United States have been diverse, focusing on various aspects of the food supply chain, from agricultural production to retail distribution. These strategies are crucial in stabilizing food prices and ensuring food security, especially in the face of challenges such as climate change and economic fluctuations.

Li and Suzuki (2013) explore the implications of climate change on regional maize production in the United States and propose risk mitigation strategies. Their study uses an interdisciplinary approach, combining climatic variables with economic inputs and technological improvements in a modified Cobb-Douglas production function model. The research forecasts maize production through 2030 under various climate change scenarios, revealing that the South region could potentially offset the North Central region's

production losses due to climate change. This finding is significant as it suggests regional adaptation strategies as a means to mitigate food inflation. By adjusting agricultural practices and crop choices according to regional climatic changes, the United States can maintain a stable food supply, thereby controlling food inflation.

Guo *et al.,* (2021) provide an exploratory investigation of mitigation interventions in the United States, focusing on the determinants and impacts of these strategies. Although their study primarily addresses COVID-19 mitigation, the methodologies and findings are relevant to food inflation mitigation. The study employs a content analysis to identify various mitigation interventions and assesses their impacts using a multiple-event survival model and a random-effect spatial error panel model. The research highlights the importance of timely and effective implementation of mitigation strategies. In the context of food inflation, this implies the need for swift and well-coordinated responses to emerging food supply challenges, such as disruptions caused by pandemics or climate events.

Azunna (2018) discusses post-colonial agricultural participation as a means to strengthen livelihoods, which indirectly contributes to mitigating food inflation. The study emphasizes the role of smallholder farmers and local agricultural practices in ensuring food security. By empowering local farmers and enhancing their productivity through sustainable practices, food supply can be increased, contributing to the stabilization of food prices. This approach is particularly relevant in the context of the United States, where localizing food systems can reduce dependence on imports and buffer against global market fluctuations.

The existing mitigation strategies for food inflation in the United States are multifaceted, addressing both the supply and demand sides of the food system. Strategies range from adapting agricultural practices to regional climatic changes, ensuring timely implementation of interventions in response to disruptions, and empowering local agricultural sectors. These approaches collectively contribute to stabilizing food prices and ensuring food security, which are critical in the face of environmental and economic challenges. Understanding and refining these strategies are essential for developing robust responses to future challenges in food inflation.

3.5. Role of Data in Understanding and Addressing Food Inflation
The role of data in understanding and addressing food inflation in the United States is pivotal. Data-driven approaches provide insights into consumer behaviors, market trends, and economic factors that influence food prices. This section explores how data is utilized to understand and mitigate food inflation, drawing on recent studies and analyses.

Hamrick and Okrent (2014) investigate the role of time in fast-food purchasing behavior in the United States. Their study uses data from the American Time Use Survey (2003-11) to examine the effects of various factors, including prices, sociodemographic characteristics, and labor force participation, on fast-food purchasing patterns. The findings reveal that fast-food purchasers tend to have higher incomes and education levels and spend less time on activities like sleeping and housework. This study highlights the importance of understanding consumer behavior through data analysis, which can inform strategies to manage food inflation, especially in the fast-food sector.

Conrad (2020) focuses on the daily cost of consumer food waste in the United States from 2001 to 2016. Utilizing cross-sectional data from the National Health and Nutrition Examination Survey linked with food waste data, the study estimates the per capita expenditure on food waste. It finds that the greatest daily food waste expenditures are for meat and seafood consumed outside the home and fruits and vegetables consumed at home. This research underscores the significance of data in identifying key areas where food waste reduction can lead to cost savings and, consequently, help in controlling food inflation.

The study by Azunna (2015) on ethnic and religious militia in Nigeria, while not directly related to food inflation in the United States, provides an example of how data on socio-political factors can be crucial in understanding broader economic issues. The study's analysis of the impact of groups like Boko Haram on the socio-economic environment illustrates the interconnectedness of various factors in economic stability, which can indirectly affect food markets and prices.

Data plays a critical role in understanding and addressing food inflation in the United States. Studies like those by Hamrick and Okrent (2014) and Conrad (2020) demonstrate how data on consumer behavior and food waste can provide valuable insights for developing strategies to manage food inflation. Additionally, understanding the broader socio-economic context, as shown in Azunna's (2015) study, is essential in comprehending the complex dynamics that influence food prices. Effective use of data is key to developing targeted and efficient approaches to mitigate food inflation.

4. DISCUSSION
4.1. Analysis of Key Findings from Literature
Many cited sources in this paper provide a comprehensive international perspective on food price inflation, highlighting the lack of overall convergence in food price inflations across countries and regions. This finding is crucial for understanding the unique position of the United States within the global food market. The study's use of clustering analysis reveals the existence of multiple convergence clubs, suggesting that while global food price inflation may not be uniform, there are subgroups of countries with similar inflation patterns. This aspect is particularly relevant when considering the United States' role as a major player in the global food market. The research underscores the importance of considering political and economic conditions when analyzing food price dynamics, a factor that is highly relevant to the U.S. context, where economic policies and international trade agreements significantly influence food prices.

Lin, Dang, and Konar's (2014) network analysis of food flows within the United States offers an insightful perspective on the domestic aspects of food inflation. Their findings indicate a highly social and well-mixed network structure in the U.S. food flow network, suggesting a robust system capable of distributing food efficiently across the country. However, the study also points out potential vulnerabilities in the network due to its reliance on key nodes, which could be disrupted by various factors, including economic policies, environmental changes, or other external shocks. This analysis is particularly relevant in understanding the internal mechanisms that can influence food inflation in the United States, highlighting the importance of maintaining a resilient and adaptable food supply chain.

The multi-site analysis conducted by Niles *et al.,* (2021) sheds light on the impact of the COVID-19 pandemic on food security in the United States. Their study reveals a significant increase in food insecurity during the pandemic, with notable disparities among different demographic groups. This research is critical in understanding the socio-economic dimensions of food inflation, as increased food prices disproportionately affect vulnerable populations. The pandemic's impact on food security underscores the need for policies that not only address food inflation but also consider its broader social implications, particularly for marginalized communities.

In synthesizing these findings, it becomes evident that food inflation in the United States is a multifaceted issue influenced by global market dynamics, domestic supply chain structures, and socio-economic factors. The international perspective provided highlights the need to consider global trends and economic conditions in understanding U.S. food inflation. Lin, Dang, and Konar's (2014) study on domestic food flows emphasizes the importance of a resilient food supply chain in mitigating inflationary pressures. Lastly, the insights from Niles *et al.,* (2021) on the pandemic's impact on food security bring to the fore the social dimensions of food inflation, stressing the need for inclusive and equitable policy responses.

These studies collectively underscore the complexity of food inflation in the United States, suggesting that a multi-dimensional approach is necessary to effectively address this challenge. Policymakers must consider not only economic and market factors but also the structural and social aspects of the food system to develop comprehensive strategies that can mitigate the impacts of food inflation while ensuring food security for all.

4.2. Effectiveness of Current Mitigation Approaches

The challenge of food inflation in the United States has prompted various mitigation strategies, each with varying degrees of effectiveness. Denkenberger and Pearce (2018) explore the cost-effectiveness of interventions for alternate food sources in the United States, particularly in the context of agricultural catastrophes. Their study underscores the importance of developing and implementing strategies that are not only technically feasible but also economically viable. The authors argue that interventions such as planning, research, and development of alternate food sources, including those exploiting fossil fuels and stored biomass, are crucial. These strategies, they suggest, could significantly enhance American resilience to food supply disruptions, thereby mitigating the effects of food inflation.

The geopolitical landscape also plays a significant role in shaping food inflation trends, The analysis of the impact of geopolitical risks, particularly in the context of the Russia-Ukraine war, reveals the complex interplay between international events and domestic food prices. It can be deduced that geopolitical risks can have both short-term and long-term impacts on food inflation, necessitating a nuanced approach to mitigation strategies. For the United States, this implies the need for policies that not only address domestic agricultural issues but also consider the global geopolitical environment.

Consumer behavior, particularly in terms of food waste, is another critical aspect of addressing food inflation. Conrad (2020) provides an insightful analysis of the daily cost of consumer food waste in the United States. The study emphasizes that reducing food waste at the consumer level is not only environmentally sustainable but also economically beneficial. By focusing on reducing waste in high-cost categories such as meat, seafood, and fresh produce, consumers can play a significant role in mitigating the effects of food inflation. This approach aligns with broader strategies aimed at increasing financial flexibility and promoting healthier food choices among consumers.

The effectiveness of current mitigation approaches to food inflation in the United States is multifaceted. Strategies range from developing alternate food sources, adapting to geopolitical changes, and encouraging consumer-level changes in food waste behavior. Each of these approaches contributes to a comprehensive strategy aimed at tackling the complex challenge of food inflation. Integrating these strategies, guided by economic and environmental considerations, is essential for developing effective and sustainable solutions to this pressing issue.

4.3. Potential for Data-Driven Strategies in Policy Making

The potential for data-driven strategies in policy making, particularly in the context of food inflation in the United States, is a critical area of exploration. The integration of big data and analytical techniques offers new pathways for understanding and addressing the complexities of food inflation.

Zhou and Shaik's analysis of shrimp demand in the United States provides an example of how data-driven approaches can inform supply strategies and policy making in specific food markets. Although focused on a single commodity, their study illustrates the broader potential of data analysis in understanding consumer preferences and market dynamics, which are essential components in managing food inflation (Zhou & Shaik, 2008). By examining the relationships between expenditure share, price, and income changes, their research contributes to a nuanced understanding of market behaviors, which is crucial for developing targeted inflation mitigation strategies.

Lee (2020) discusses the transformative potential of big data strategies for government, society, and policy-making. The paper highlights numerous global examples where big data has revolutionized public service delivery and government engagement with citizens. In the context of food inflation, such strategies can be instrumental in identifying patterns, predicting trends, and formulating responsive policies. The United States, with its advanced technological infrastructure, is well-positioned to leverage big data in addressing the multifaceted challenges of food inflation. This approach can lead to more citizen-centric, responsive, and transparent governance, thereby enhancing the effectiveness of policy interventions (Lee, 2020).

Neufeld *et al.,* (2016) emphasize the importance of a data-driven approach in the context of food fortification. Their research underscores the significance of tracking program coverage and building systems for data-driven decision-making in nutrition programs. This perspective is particularly relevant for food inflation policy, as it highlights the need for evidence-based approaches in program design and implementation. By focusing on the impact and coverage of nutrition programs, policymakers can ensure that interventions are scientifically sound and practically effective in addressing the population's nutritional needs, which is a critical aspect of managing food inflation (Neufeld *et al.,* 2016).

The potential for data-driven strategies in policy making for food inflation in the United States is substantial. These strategies offer a way to harness the power of big data and analytics in understanding market dynamics, consumer behavior, and the effectiveness of policy interventions. By integrating data-driven insights into policy formulation and implementation, it is possible to develop more targeted, efficient, and responsive strategies to address the complex challenge of food inflation. This approach not only enhances the effectiveness of policies but also contributes to more transparent and accountable governance.

4.4. Gaps in Current Literature and Future Research Directions

Gundersen and Ziliak (2018) highlight the critical issue of food insecurity in the U.S., emphasizing its status as a major health crisis. Their work underscores the need for more research on the distribution of food insecurity within households and the impact of the food distribution system on food insecurity. They also point out the necessity of exploring the coping mechanisms of low-income food-secure families and the effects of charitable food assistance. This comprehensive review sets the stage for future research to delve deeper into these areas, particularly in understanding how these factors contribute to the broader issue of food inflation.

Bollington *et al.,* (2021) shift the focus to the global food transformation and the role of minor commodity crops in human nutrition and environmental sustainability. Their research reveals a significant gap in funding for these crops compared to major commodities. This disparity in research investment poses a barrier to food system transformations and has implications for food inflation. The underfunding of research in minor commodity crops suggests a potential area of exploration in understanding how these crops can contribute to stabilizing food prices and offering sustainable alternatives in the U.S. food system.

Zhang (2021) introduces a novel approach by applying data mining technologies to examine the potential causes of income inequality, including inflation. This study emphasizes the importance of leveraging advanced data analysis techniques to understand the complex dynamics of food inflation. The predictive models developed in this study can be instrumental in forecasting future trends in food inflation and identifying key factors that influence these trends. This approach opens up new avenues for research, particularly in the application of data mining and predictive analytics in economic research related to food inflation.

The current literature on food inflation in the United States provides a solid foundation but also reveals significant gaps. Future research should focus on the distribution and impact of food insecurity at the household level, the role of minor commodity crops in the food system, and the application of advanced data analytics in understanding and predicting food inflation trends. Addressing these gaps will not only enhance our understanding of food inflation but also contribute to developing more effective strategies to mitigate its impact.

4.5. Broader Implications for Stakeholders

In the United States food inflation context, the broader implications for stakeholders are multifaceted and complex. Kohn and Anderson (2022) explore the challenges faced by agriculturalists in the U.S., including economic and environmental concerns and the impact of misinformed consumers and agribusiness consolidation. Their findings suggest that these challenges reduce the agency of agriculturalists, affecting their ability to adapt and respond effectively to the dynamic food market. This situation underscores the need for more inclusive and participatory approaches in policy-making and education, where stakeholders can engage in social learning and grassroots organization to enhance adaptive management strategies in agriculture.

Seligman and Berkowitz (2019) highlight the intersection of food security and public health, emphasizing the need for aligned programs and policies that support both objectives. The coping strategies adopted by individuals in food-insecure households, while sometimes effective in the short term, can have adverse health impacts over time. This insight points to the importance of integrated approaches that address both food security and health outcomes, particularly in the context of rising food prices. By improving access to supportive programs and policies, stakeholders can mitigate the negative health implications associated with food insecurity, which is often exacerbated by food inflation.

These studies collectively point to the importance of a holistic approach in addressing food inflation, one that considers the economic, environmental, and health-related aspects of the issue. Stakeholders, including agriculturalists, policymakers, and public health officials, must collaborate to develop strategies that are not only economically viable but also socially and environmentally sustainable. This collaborative approach is essential for effectively managing the complex challenges posed by food inflation in the United States.

5. CONCLUSION

In concluding this comprehensive study on food inflation in the United States, reflecting on the journey undertaken to understand and address this complex issue is imperative. The study commenced with a clear aim to contextualize food inflation within the U.S., drawing comparisons with global patterns and emphasizing the significance of a data-driven approach. This objective was meticulously achieved through a thorough literature

review, which not only defined and traced the historical trends of food inflation but also illuminated its socio-economic impacts and the potential of data-driven strategies in policy-making.

The methodology adopted for this study was rigorous and methodical, involving the careful selection and thematic organization of relevant literature. This approach ensured a comprehensive understanding of food inflation, encompassing historical overviews, key influencing factors, and existing mitigation strategies. The synthesis of this information provided a nuanced understanding of data's role in comprehending and addressing the challenges of food inflation.

Key findings from the study highlighted the multifaceted nature of food inflation, influenced by a complex interplay of economic, environmental, and social factors. The study revealed the critical role of minor commodity crops, the impact of food insecurity at the household level, and the potential of advanced data analytics in predicting and managing food inflation trends.

In conclusion, this study underscores the importance of a holistic and data-driven approach in tackling food inflation. It recommends the need for more inclusive policy-making, greater investment in research on minor commodity crops, and the application of advanced data analytics for effective management. These strategies are economically viable and socially and environmentally sustainable, ensuring a balanced approach to addressing the challenges posed by food inflation in the United States. This study serves as a foundational reference for policymakers, researchers, and stakeholders, guiding future efforts in mitigating the impacts of food inflation.

REFERENCES
- Azunna, C. (2018). Post-colonial agricultural participation in livelihood strengthening. Research, Society and Development, 7(2), p.772144.
- Azunna, C. (2020). Empowering women farmers through livelihood strengthening model in Eastern Nigeria. *Research, Society and Development, 9*(1), e33911503-e33911503. [online] Available at: https://dx.doi.org/10.33448/rsd-v9i1.1503
- Azunna, C. I. (2015). Ethnic and Religious Militia in Nigeria: The Case of Boko Haram. Asian Journal of Humanities and Social Sciences (AJHSS), 3(3), pp.48-54.
- Białek, J., Dominiczak-Astin, A., & Turek, D. (2021). Porównanie cen i wskaźników cen konsumpcyjnych: tradycyjna metoda uzyskiwania danych a źródła alternatywne. *Wiadomości Statystyczne. The Polish Statistician*, *66*(9), 32-69. [online] Available at: DOI: 10.5604/01.3001.0015.2699

- Bobeica, E., Ciccarelli, M., & Vansteenkiste, I. (2021). The Changing Link between Labor Cost and Price Inflation in the United States. [online] Available at: https://dx.doi.org/10.2866/32827
- Bollington, A., DeLonge, M., Mungra, D., Hayek, M., Saifuddin, M., & McDermid, S. S. (2021). Closing research investment gaps for a global food transformation. *Frontiers in Sustainable Food Systems*, *5*, 794594. DOI: 10.3389/fsufs.2021.794594
- Bukhari, S. F. H., Mazhar, W., & Waqas, R. (2018). A review of the impact of marketing mix in decision making process of consumers when buying food products. *Journal of Contemporary Scientific Research (ISSN (Online) 2209-0142)*, *2*(6).
- Chien, Y., & Bennett, J. (2019). Decomposing the Low PCE Inflation Rate. [online] Available at: https://dx.doi.org/10.20955/es.2019.24
- Conrad, Z. (2020). Daily cost of consumer food wasted, inedible, and consumed in the United States, 2001–2016. *Nutrition journal*, *19*, 1-9. DOI: 10.1186/s12937-020-00552-w
- Copeland, N. (2020). The Neoliberal Diet: Healthy Profits, Unhealthy People. 192-194. [online] Available at: https://dx.doi.org/10.1177/0094306120902418ff
- De Winne, J., & Peersman, G. (2016). Macroeconomic effects of disruptions in global food commodity markets: Evidence for the United States. *Brookings Papers on Economic Activity*, *2016*(2), 183-286.
- Denkenberger, D., & Pearce, J. M. (2018). Cost-effectiveness of interventions for alternate food in the United States to address agricultural catastrophes. *International Journal of Disaster Risk Reduction,* *27*, 373-386. DOI: 10.1016/J.IJDRR.2017.10.014
- Di Giovanni, J., Kalemli-Özcan, Ş., Silva, Á., & Yıldırım, M. A. (2022). Global Supply Chain Pressures, International Trade, and Inflation. [online] Available at: https://dx.doi.org/10.3386/w30240
- Grunwald, J. (1993). Hemispheric economic integration? Some reflections. *The ANNALS of the American Academy of Political and Social Science*, *526*(1), 135-150.
- Gundersen, C., & Ziliak, J. P. (2018). Food insecurity research in the United States: Where we have been and where we need to go. *Applied Economic Perspectives and Policy*, *40*(1), 119-135. DOI: 10.1093/AEPP/PPX058
- Guo, S., An, R., McBride, T. D., Yu, D., Fu, L., & Yang, Y. (2021). Mitigation interventions in the United States: An exploratory investigation of determinants and impacts. *Research on Social Work Practice*, *31*(1), 26-41. DOI: 10.1177/1049731520957415
- Hamrick, K. S., & Okrent, A. (2014). The role of time in fast-food purchasing behavior in the United

States. *USDA-ERS Economic Research Report*, (178). DOI: 10.2139/ssrn.2677707

- Inoue, T., & Okimoto, T. (2017). *Measuring the effects of commodity price shocks on Asian economies* (No. 693). ADBI Working Paper.
- Jaworski, K. (2021). Measuring food inflation during the COVID-19 pandemic in real time using online data: a case study of Poland. *British Food Journal*, *123*(13), 260-280. [online] Available at: DOI: 10.1108/BFJ-06-2020-0532
- Kohn, C., & Anderson, C. W. (2022). Makers vs. takers: Perceived challenges to food production among agriculturalists in the United States. *The Journal of Agricultural Education and Extension*, *28*(4), 503-524. DOI: 10.1080/1389224X.2021.1977665.
- Lee, J. H., Duster, M., Roberts, T., & Devinsky, O. (2022). United States dietary trends since 1800: lack of association between saturated fatty acid consumption and non-communicable diseases. *Frontiers in Nutrition*, p.1267. DOI: 10.3389/fnut.2021.748847
- Lee, J. H., Hwang, J., & Mustapha, A. (2014). Popular ethnic foods in the United States: A historical and safety perspective. *Comprehensive Reviews in Food Science and Food Safety*, *13*(1), 2-17. DOI: 10.1111/1541-4337.12044
- Lee, J. W. (2020). Big data strategies for government, society and policy-making. *Lee, Jung Wan (2020). Big Data Strategies for Government, Society and Policy-Making. Journal of Asian Finance Economics and Business*, *7*(7), 475-487. DOI: 10.13106/jafeb.2020.vol7.no7.475
- Li, X., & Suzuki, N. (2013). Implications of climate change impacts on regional maize production in the United States: Risk mitigation strategies and food security. *International Journal of Environmental Science and Development*, *4*(5), 446. DOI: 10.7763/IJESD.2013.V4.391
- Lin, X., Dang, Q., & Konar, M. (2014). A network analysis of food flows within the United States of America. *Environmental science & technology*, *48*(10), 5439-5447. DOI: 10.1021/es500471d
- Lv, L., Liu, Z., & Xu, Y. (2019). Technological progress, globalization and low-inflation: Evidence from the United States. *PloS one*, *14*(4), e0215366. DOI: 10.1371/journal.pone.0215366
- Mead, D., Ransom, K., Reed, S. B., & Sager, S. (2020). The impact of the COVID-19 pandemic on food price indexes and data collection. *Monthly Lab. Rev.*, *143*, 1. [online] Available at: DOI: 10.21916/mlr.2020.18
- Neufeld, L. M., Aaron, G. J., Garrett, G. S., Baker, S. K., Dary, O., & Van Ameringen, M. (2016). Food fortification for impact: a data-driven approach. *Bulletin of the World Health Organization*, *94*(8), 631. [online] Available at: https://dx.doi.org/10.2471/BLT.15.164756

- Ngidi, B. A. N. (2016). *Food price inflation and the poor* (Doctoral dissertation, University of the Witwatersrand, Faculty of Commerce, Law and Management, School of Economic and Business Sciences).
- Nicholson, C. F., He, X., Gómez, M. I., Gao, H. O., & Hill, E. (2015). Environmental and economic impacts of localizing food systems: the case of dairy supply chains in the Northeastern United States. *Environmental Science & Technology*, *49*(20), pp.12005-12014. DOI: 10.1021/acs.est.5b02892
- Niles, M. T., Beavers, A. W., Clay, L. A., Dougan, M. M., Pignotti, G. A., Rogus, S., Savoie-Roskos, M. R., Schattman, R. E., Zack, R. M., Acciai, F., & Allegro, D. (2021). A Multi-Site Analysis of the Prevalence of Food Insecurity in the United States, before and during the COVID-19 Pandemic. *Current developments in nutrition*, *5*(12), nzab135. DOI: 10.1093/cdn/nzab135
- Odondo (2021). Dynamics of Core Inflation, Energy Inflation, Food Inflation and Manufacturing Sector Output Growth in Kenya: Econometric Analysis of Causality and Effects. [online] Available at: https://dx.doi.org/10.7176/JESD/12-2-05
- Pacillo, G., Bao-Nam, N. V., Burra, D. D., Trinh, H. T., Le, T. D., Truong, M. T., Nguyen, S. D., Tran, D. T., & Läderach, P. (2022). Disruptive innovations for well-functioning food systems: The data-driven "food and nutrition security under climate evolution" framework. *Frontiers in Sustainable Food Systems*, *5*, 726779. [online] Available at: https://dx.doi.org/10.3389/fsufs.2021.726779
- Powers, R., & Roberts, R. (2022). A Historical Examination of Food Labeling Policies and Practices in the United States: Implications for Agricultural Communications. *Journal of Agricultural Education*, *63*(4). DOI: 10.5032/jae.2022.04168
- Putri, B. D. H. (2016). *AN Analysis of the Relevance of Financial Indicators Using General Price Level Accounting and Current Cost Accounting During Inflation Period in Indonesia (The Case of Food and Beverages and Transportation Sub-sectors)* (Doctoral dissertation, Bakrie University).
- Ren, X., & Huatuco, L. H. (2016). Supplier Selection Processes: A Case Study in a Chinese Dairy Company. In *Sustainable Design and Manufacturing 2016* (pp. 467-474). Springer International Publishing. DOI: 10.1007/978-3-319-32098-4_40
- Seligman, H., & Berkowitz, S. A. (2019). Aligning Programs and Policies to Support Food Security and Public Health Goals in the United States. *Annual review of public health*, *40*, 319-337. [online] Available at: https://dx.doi.org/10.1146/annurev-publhealth-040218-044132 DOI: 10.1146/annurev-publhealth-040218-044132.

- Trubek, A. (2019). Nationalism, Culinary Coherence and the Case of the United States: An Empirical or Conceptual Problem?. *The Emergence of National Food: The Dynamics of Food and Nationalism*, pp.142-150. [online] Available at: https://dx.doi.org/10.5040/9781350074163.0019
- Vahe, B. (2022). Inflation And Poverty: Trends In The Development Of The World Economy. *Амберд*, *6*(19), 94-100. [online] Available at: https://dx.doi.org/10.52174/2579-2989_2022.6-94.
- Venkat, K. (2012). The climate change and economic impacts of food waste in the United States. *International Journal on Food System Dynamics*, *2*(1012-2016-81150), 431-446. DOI: 10.18461/IJFSD.V2I4.247
- Volpe, R., & Boland, M. A. (2022). The Economic Impacts of Walmart Supercenters. *Annual Review of Resource Economics*, *14*, 43-62. DOI: 10.1146/annurev-resource-111820-032827
- Walker, R. J., Garacci, E., Dawson, A. Z., Williams, J. S., Ozieh, M., & Egede, L. E. (2021). Trends in food insecurity in the United States from 2011–2017: disparities by age, sex, race/ethnicity, and income. *Population health management*, *24*(4), 496-501. [online] Available at: https://dx.doi.org/10.1089/pop.2020.0123
- Yahodzinska, A. (2020). Food Price Volatility In Ukraine. *Innovative Economy*, (5-6), 49-57.
- Zhang, R. (2021). Applying Data Mining Technology on Inflation Prediction in the United States. In *2021 8th International Conference on Computational Science/Intelligence and Applied Informatics (CSII)* pp. 34-37. IEEE. DOI: 10.1109/CSII54342.2021.00015
- Zhao, N., Chung, M., Lischko, A., & Koch-Weser, S. (2021). Knowledge Translation and WIC Food Package Regulation Change. *Journal of the American College of Nutrition*, *40*(7), 598-607. DOI: 10.1080/07315724.2020.1810170
- Zhou, X., & Shaik, S. (2008). Demand Analysis for Shrimp in the United States.