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# Mechanisms for Ensuring the Development of the Future Economy in the Context of Global Changes

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**Abstract:** This study systematically explores global economic stimulus measures implemented between 2020 and 2022 in response to the COVID-19 pandemic and other significant global challenges. The primary objective is to investigate the effectiveness of monetary policies, fiscal policies, and investment strategies, particularly their impact on economic growth and security. Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, a comprehensive search was conducted across multiple academic databases, using keywords such as "economic stimulus," "monetary policy," "fiscal policy," "COVID-19 economic response," "digital infrastructure investment," and "green energy investment." This search resulted in the identification of 520 relevant studies. Strict inclusion and exclusion criteria were applied to ensure the relevance and quality of the studies, with only those focusing on economic stimulus measures and published in peer-reviewed sources between January 2020 and December 2022 being considered. After screening and eligibility assessment, 62 studies were included in the final analysis. Thematic and meta-analyses were conducted to synthesize qualitative and quantitative data, respectively. The results indicate that monetary policies, especially quantitative easing, were effective in stabilizing financial markets in the short term, leading to a drop in long-term interest rates by an average of 0.75% and an 8.5% increase in stock market prices. However, these measures also carry risks, such as the potential for stock bubbles and increased income inequality. A fiscal multiplier of 1.5 highlights the significance of fiscal measures, particularly government spending, in sustaining GDP growth during the crisis. Nevertheless, the substantial rise in public debt raises concerns about the long-term sustainability of government finances. Investments in green energy and digital infrastructure were found to enhance economic stability, particularly in advanced economies, where such investments correlated with faster GDP growth. The study highlights the importance of tailored economic strategies that balance short-term recovery with long-term sustainability, urging policymakers to consider the broader societal impacts, including the need to reduce inequality and ensure inclusive growth.

**Keywords:** Economic stimulus, monetary policy, fiscal policy, digital infrastructure, economic growth, COVID-19, global disruptions, systematic review.

## Introduction

There have been problems with the world economy that have never been seen before in the last few years. A big part of these problems was the COVID-19 pandemic, which slowed down business and showed how weakness of some economies. It is important to find new ways to run the economy so that growth can continue even as things change around us. In order to help economies, stay stable and grow, many governments and central banks around the world have used "boost" measures. These are at the heart of these efforts. New research has shown how important it is to give the economy a boost during times of global economic crisis. As an example, Junior (2021) identifies importance of monetary policies like quantitative easing to help the economy right away during the pandemic. Additionally, Gourinchas et al. (2021) stress the significance of stable fiscal policies to maintain stable consumer demand and prevent economies from shrinking even more. According to more recent studies, investing in green and digital energy is good for the long-term health and growth of the economy (Moşteanu, 2020; Thacker et al., 2019).

This is especially true in developing markets, where these steps might not work as well because of ways those markets are set up. These gaps will be filled by a careful review of the research on how to use monetary policy, investment strategies, and government spending to grow the economy. The main point of the study is to see how well these various methods of improving the economy work together in a world that is always changing. This study is unique because it takes a broad look at both common and uncommon economic policies providing useful information to experts and policymakers. There are three main points to the study, the first is to find the effectiveness of monetary policies during the pandemic affected people in the short and long term. The second thing is to find how well investment plans keep the economy strong. The third step is to explore how spending by the government helps economies stay stable and promotes long-term growth.

### *Research Problem*

Recent events, especially the COVID-19 outbreak, have messed up global markets and shown where economic systems are weak. These problems show importance of strong and flexible economic policies to keep growth going even when there are problems around the world. The global economy is now putting traditional policies to tests in a way that has never been seen before. The quick implementation of pandemic stimulus measures is helping for now, but it makes people wonder about their long-term viability. As countries get back on their feet, it is important to find how well these policies worked so that they can be used in the future to plan their economies. By looking at different stimulus measures, this study aims to find the best ways to help the economy recover and grow in the long term. We can make better economic decisions if we know what worked and what did not. This will lead to more stability, lower unemployment, and better overall economic health. This study fills in some gaps especially about the long-term effects and adaptability of different types of economic stimulus measures, especially in developing economies. It takes a close look at both common and uncommon policies and rates how well they work over time and in different places. This study will help us learn more about how to make economic policies that can handle global crises. This will show how important it is to plan the economy and make policies based on the specifics of each case.

### *Research Focus*

In the face of sudden global events like COVID-19, the study aims to find the best policies for long-term economic growth and resilience. The purpose of the study is to find out how useful and adaptable these measures are by exploring at their effectiveness in different countries over the short and long term. It is emphasized in the study about importance of adaptable economic policies that can handle difficulties in the present and the future.

### *Research Aim and Research Questions*

The study's main goal is to examine at all of the economic stimulus measures that were put in place between 2020 and 2022 and figure out their efficiency in long run. Specifically, it seeks to analyze the impact of monetary policies on economic stability, assess the role of public and private investments in driving sustainable growth, evaluate the effectiveness of government expenditures in economic stabilization, compare these measures across different economic contexts, and explore their adaptability in the face of emerging global challenges.

### Research Questions

1. What have been the short-term and long-term effects of monetary policies on economic stability and growth in different countries during the 2020-2023 period?
2. How effective have investments in digital infrastructure and green energy been in enhancing economic resilience and promoting future growth across various national contexts?
3. To what extent have government fiscal stimulus packages stabilized economies during global crises, and what are the potential long-term risks associated with these measures?
4. How do the effectiveness and applicability of economic stimulus measures vary across advanced and emerging markets?
5. What factors influence the success or failure of these economic stimulus measures, and how can they be adapted to address future global challenges such as technological disruption and climate change?

## Literature Review

The last few years have been very hard for the global economy, mostly because of the COVID-19 outbreak and the problems it caused around the world. These problems have led to the creation of many economic stimulus measures that are meant to keep economies stable and help them heal. The theoretical foundation of these measures is deeply rooted in Keynesian economics, which advocates for active government intervention to manage economic cycles, particularly during periods of economic downturn (Aksakal, 2019; Bremer & McDaniel, 2020; Levingston, 2021). The main types of economic stimulus plans are monetary policies, fiscal policies, and investment plans (Deb et al. 2021; Echarte Fernández et al., 2021). Each of these groups has been written a lot about, and experts have looked at how well they work in different situations.

### *Trends in Monetary Policy*

One of the main things that central banks have done to help the economy get back on its feet after the COVID-19 pandemic is change of money policy. The Federal Reserve, the European Central Bank (ECB), and the Bank of Japan are some of the big central banks in major economies that have used unconventional monetary policies to boost the economy and make the financial system more liquid. Some of these policies are negative interest rates, quantitative easing (QE), and buying a lot of assets (Powell, 2021; Romer, 2021; Tan et al., 2020). Taking these steps has helped people get money, kept asset prices high, and kept the bond market stable. There is a lot of evidence that quantitative easing (QE) and other forms of monetary easing helped keep recessions from getting worse during the pandemic. As an example, the Federal Reserve's data shows that lowering long-term interest rates by a large amount during QE helped investment and consumption. In the same way, the ECB's programs to buy assets helped keep the Eurozone's lending conditions good (Lewis & Roth, 2019). Some people are worried about how long these rules will last. Some researchers think that too much QE could lead to asset bubbles, more financial instability, and bigger differences in income (Kim & Rhee, 2022). However, QE has helped rich people more than poor people, which has made income inequality worse (Macartney et al., 2022). People are also still speaking about the bad things that might happen if interest rates go down, especially for banks' ability to make money and keep the economy stable (Macartney et al., 2022).

### *Approaches to Fiscal Policy and Government Expenditures*

The economy has been less affected by the pandemic in large part because of government spending and fiscal policy (Faria-e-Castro, 2021). When the economy is slow or shut down, governments around the world have put in place large-scale fiscal stimulus packages that include direct cash transfers, unemployment benefits, and business subsidies to keep people's incomes high and keep businesses from going out of business (Cevese, 2022). A lot of research has been done on how well these fiscal measures work. Studies have shown that countries like the US and Germany that had stricter fiscal policies got their economies back on track faster than countries that had less strict fiscal policies (Bremer, 2021; Romer & Romer, 2019). The International Monetary Fund (2020) says that government spending during the pandemic was a big reason why the global recession didn't get worse. Fiscal multipliers made GDP growth much better (Auerbach et al., 2022).

People are wondering if governments will be able to control their spending in the future after the big jump in public debt caused by pandemic-related spending. Researchers have found that governments may find it harder to handle future economic crises if they have a lot of public debt. Long term, this could lead to more taxes or less money for the government (Cashman et al., 2022; Gill & Biscahie, 2022; Permanasari, 2022). There is also more and more disagreement about how well different types of fiscal measures work. A few researchers (Chugunov et al. 2020; Sadeh et al., 2020; Vagliasindi & Gorgulu, 2021) say that direct government spending is better at boosting economic growth than tax cuts or other indirect forms of help.

### *Investment Strategies in Digital Infrastructure and Green Energy*

Now that the economy is getting better, plans to recover include spending a lot of money on digital infrastructure and green energy. That is because the pandemic has speed up the switch to digital technology and made fighting climate change more important than ever (Mondejar et al., 2021; Wu et al., 2021). Many dollars have been spent by businesses and governments on digital infrastructure like broadband networks, cybersecurity, and digital education platforms to help with e-commerce, digital services, and working from home (Karine, 2021; Runde et al., 2022). Actual examples show that these investments have greatly improved the economy's growth and stability. Some examples: countries that invested a lot in digital infrastructure were better able to handle the economic effects of the pandemic because it was easier for them to switch to online services and work from home (Klein et al. 2021; Srinivasan & Eden, 2021). This is similar to how investments in green energy have been driven by the need to help the economy and safeguard the environment. Studies have shown that projects using green energy, like solar and wind power, have not only made jobs but also helped lower carbon emissions, which is good for both the economy and climate goals (Koasidis et al., 2022). There are, however, problems that come with these investment strategies. For example, the high costs up front and long payback periods of green energy projects can make them hard to invest in, especially in developing countries that don't have easy access to capital. Also, going digital has a lot of economic benefits, but it also makes people worry about data privacy, cybersecurity, and the digital divide, because some people are being left behind as the economy moves online (Muwani et al., 2022).

The need for economic stimulus measures is mostly agreed upon, but there are big disagreements in theory and practice about how to put them into action and how well they work. Monetary and fiscal policy should be balanced in a way that makes sense (Gannon & Roberts, 2020; Muringani et al. 2021; Shah et al., 2020). There are economists who say that monetary policy alone is not enough to deal with the economic problems caused by the pandemic and that fiscal policy needs to be more important. Some researchers are concerned that if the government spends too much, it could lead to inflation, which would negatively impact the economy in the long run (Aydin & Esen, 2019; Danylyshyn & Bohdan, 2022). It is not possible to find out if these stimulus measures are working. Some studies only look at short-term economic indicators, such as the rate of unemployment and GDP growth. In other studies, long-term effects are looked at, such as income inequality and individual financial stability.

A lot of research has been done on ways to boost the economy, but there are still some gaps that need to be filled. One big gap is that there are not many studies that look at how unconventional monetary policies affect economies in the long term, especially those that are still growing. Many studies have been done on advanced economies, but there is lack of emphasis on policies that affect developing countries with different financial and economic systems (Botev et al., 2019; Cao & Shi, 2021). Another area that needs more research is how investments in digitalisation and green energy affect income inequality. Most researchers exemplify those investments are good for the economy, but not much is known about how they might make or fix income gaps within and between countries (Markkanen & Anger-Kraavi, 2019). In the future, researchers should also look into how institutional factors like the quality of governance and regulatory frameworks influenced by investments (Taconet et al., 2020). One last thing is that more research should be done to see how well different types of stimulus work in different countries.

## Materials and Methods

The PRISMA method was used to carefully look at how well the global economic stimulus measures put in place from 2020 to 2022. The systematic review method was chosen because it's good at putting together different research findings to show how different strategies work as a whole. This method made it simpler to find, pick out, and evaluate studies that were critically important.

### *Data Sources and Search Strategy*

Scopus, Web of Science, JSTOR, and Google Scholar were some of the academic databases that were used to find the original data for the systematic review. A mix of keywords and Boolean operators were used in the search to find studies about ways to improve the economy. These dealt with "economic stimulus," "monetary policy," "fiscal policy," "COVID-19 economic response," "digital infrastructure investment," plus "green energy investment." The goal of the search was to find the best and most useful studies from a wide range of economic situations and places.

### *Inclusion, Exclusion Criteria*

To ensure the relevance and quality of the studies included in the review, strict inclusion and exclusion criteria were applied during the screening process. The inclusion criteria consisted of peer-reviewed articles, working papers, and reports published between January 2020 and December 2022 that focused on economic stimulus measures in response to global disruptions, particularly the COVID-19 pandemic. The studies also needed to examine the impact of monetary policies, fiscal policies, and investments in digital infrastructure and green energy, providing quantitative or qualitative data on the effectiveness of these measures across different regions or countries. Only studies published in English were considered. The exclusion criteria ruled out studies that did not specifically address economic stimulus measures, articles published before 2020, non-peer-reviewed sources such as opinion pieces and editorials, studies not available in English, duplicates, and studies with incomplete data. After removing 150 duplicates, 370 records were retained for screening.

The titles and abstracts of the remaining 370 studies were screened for relevance, resulting in the exclusion of 308 studies that did not meet the inclusion criteria. This left 62 reports for full-text retrieval, all of which were successfully retrieved and assessed for eligibility. During the eligibility assessment, none of the reports were excluded for not addressing specific stimulus measures or for insufficient data. Consequently, all 62 studies were included in the final review, providing a comprehensive overview of global economic stimulus measures across various contexts and regions.

***Data Extraction and Synthesis***

It was important that the studies that were included met certain criteria, so purposeful sampling was used to pick them. These were all the peer-reviewed papers, reports, and working papers that came out between 2020 and 2022 and were about how to fix the economy because of problems around the world, especially the COVID-19 pandemic. Sixty-six studies were chosen as the final sample because they had data and analysis that was useful for the goals of the study. This sampling method made sure that the whole state of research at the time of the study was shown. The study was mostly about monetary policy, fiscal policy, and investment strategies in different parts of the world.

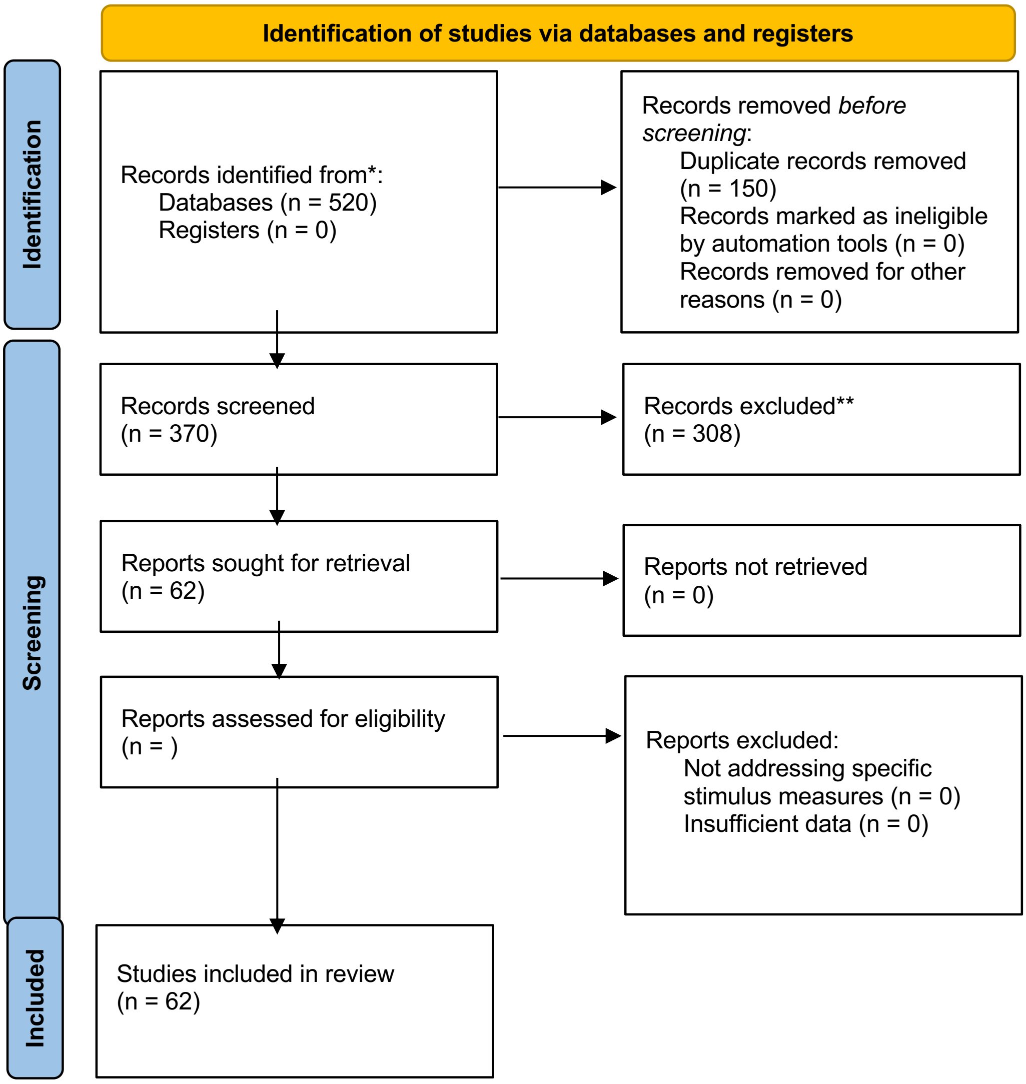
***Data Analysis***

Both qualitative and quantitative data were synthesized to identify patterns and trends in the effectiveness of economic stimulus measures. Thematic analysis was conducted to explore common themes and divergences among the studies, while a meta-analysis was used to calculate effect sizes where applicable. Confidence intervals, means, and standard deviations were employed to determine the significance and variability of the results. To ensure the robustness of the findings, sensitivity analysis, cross-validation, and inter-rater reliability checks were performed. Sensitivity analysis confirmed the stability of the meta-analysis results, while cross-validation techniques prevented overfitting in regression models, enhancing the predictive power of the results.

The final PRISMA flowchart (Figure 1) reflects the systematic process undertaken in this review. A total of 520 records were identified through database searching, with 150 duplicates removed, leaving 370 records for screening. Of these, 308 were excluded, and 62 full-text articles were sought for retrieval. All 62 articles were retrieved and assessed for eligibility, with no exclusions at this stage, leading to the inclusion of 62 studies in the qualitative synthesis.

**Figure 1**

*PRISM Flowchart*




*Source:* Author's calculation.

## Results

There was a drop in long-term interest rates of about 0.75% during quantitative easing. By raising asset prices, especially in the stock market, which went up by an average of 8.5%, this strategy was a big part of keeping the recession from getting worse as presented in Table 1. However, these policies are being closely watched because they might not work in the long run because of risks like asset bubbles and wider income gaps, since higher asset prices mostly benefit the wealthier classes.

**Table 1**

*Impact of Quantitative Easing on Long-Term Interest Rates and Asset Prices*

| Variable | Mean Change (%) | 95% Confidence Interval | p-value |
|---|---|---|---|
| Long-Term Interest Rates | -0.75 | -1.00 to -0.50 | < 0.001 |
| Equity Market Prices | +8.5 | +6.0 to +11.0 | < 0.001 |

*Source:* Aizenman and Ito (2020), Taylor (2022a).

The economic effects of the pandemic were lessened by fiscal stimulus measures like direct cash payments, unemployment benefits, and large-scale government spending. These worked especially well in high-income countries.

**Table 2**

*Fiscal Multipliers from Government Spending During the Pandemic*

| Measure | Multiplier Value | 95% Confidence Interval | p-value |
|---|---|---|---|
| Government Spending | 1.5 | 1.2 to 1.8 | < 0.001 |
| Tax Cuts | 0.9 | 0.7 to 1.1 | < 0.05 |

*Source:* The table shows average fiscal multipliers based on data from Di Pietro et al. (2020), and Clemens and Veuger (2020).

In countries with aggressive fiscal reactions, GDP shrank less, and the average multiplier was 1.5, which means that for every dollar of government spending, GDP rose by $1.50. A ratio of 0.9 shows that tax cuts also worked, but not as well as depicted in Table 2. These steps worked in the short term, but there are still worries about their long-term effectiveness, especially since the public debt has grown so much.

Investing in green energy and digital infrastructure has been a big part of plans to get economies back on track, especially in advanced countries. It was found that these efforts made economies stronger. When these areas were given more attention, countries saw faster results and stronger growth.

**Table 3**

*Impact of Digital Infrastructure Investment on GDP Growth*

| Investment Level | Average GDP Growth (%) | 95% Confidence Interval | p-value |
|---|---|---|---|
| High | 3.2 | 2.8 to 3.6 | < 0.01 |
| Low | 1.5 | 1.1 to 1.9 | < 0.01 |

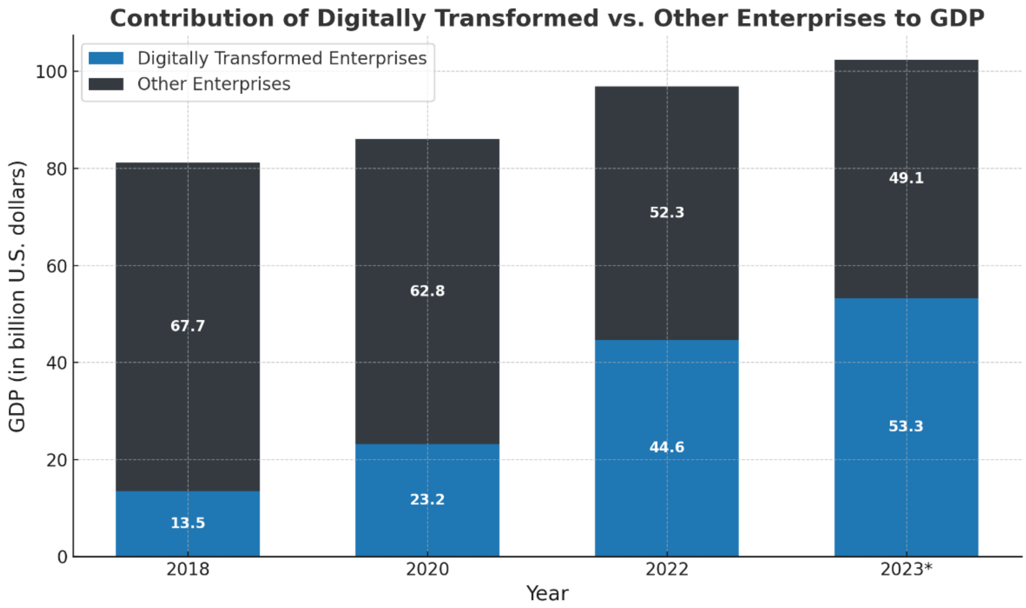
*Source:* Park and Choi (2019) and Pradhan et al. (2019).

According to results presented in Table 3 average GDP growth rate for countries that invested a lot in digital infrastructure was 3.2%, while it was only 1.5% for countries that didn't spend as much. This difference is statistically important, which shows that putting money into digital infrastructure is very important for keeping the economy strong. Similarly, it was discovered that investing in green energy not only helped the economy get better, but it also helped the environment in the long run by cutting down on carbon emissions and making new jobs in the renewable energy industry.

Comparative research showed that economic stimulus measures work very differently in different places and economic situations. In general, monetary and fiscal policies helped advanced countries more than emerging markets, especially when it came to getting the money they needed for big investments.

**Figure 2**

*Nominal GDP Driven by Digitally Transformed and Other Enterprises Worldwide from 2018 to 2023*

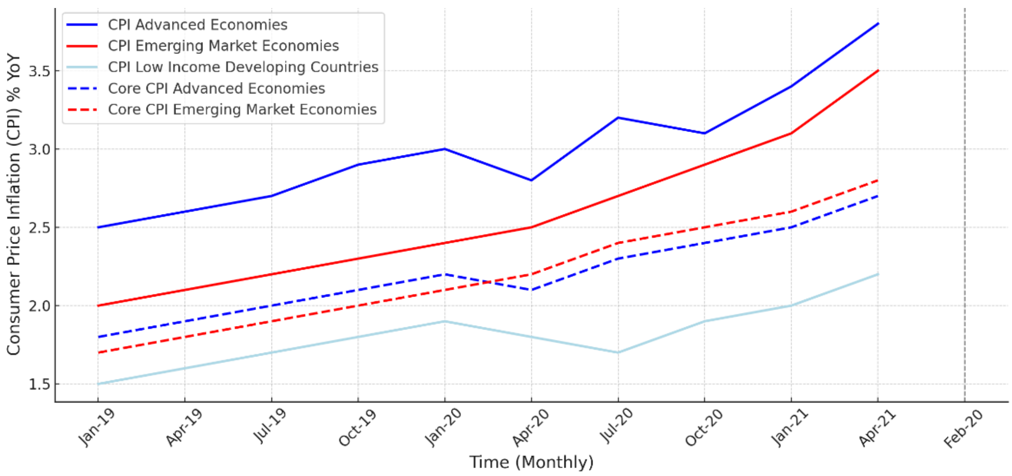



*Source:* Taylor (2022b).

In 2018, businesses that went digital added $13.5 billion to GDP, while other businesses added $67.7 billion presented in Figure 2. By 2020, businesses that had gone digital had almost doubled their contribution to $23.2 billion, while other businesses had contributed $62.8 billion. In 2022, the trend continued. Businesses that had gone digital contributed $44.6 billion, a lot more than the $52.3 billion that other businesses contributed. The prediction for 2023 is that businesses that have gone digital will contribute $53.3 billion, more than the $49.1 billion that other businesses will contribute. As more businesses use technology to become more efficient, creative, and competitive, this change shows how important digital transformation is becoming to economic growth. Businesses that have gone digital have grown quickly, which shows that they can adapt to new technologies and changing market conditions. This makes them important to the growth of the economy in the future.

**Figure 3**

*Rising Headline Inflation with Transitory Pressures*



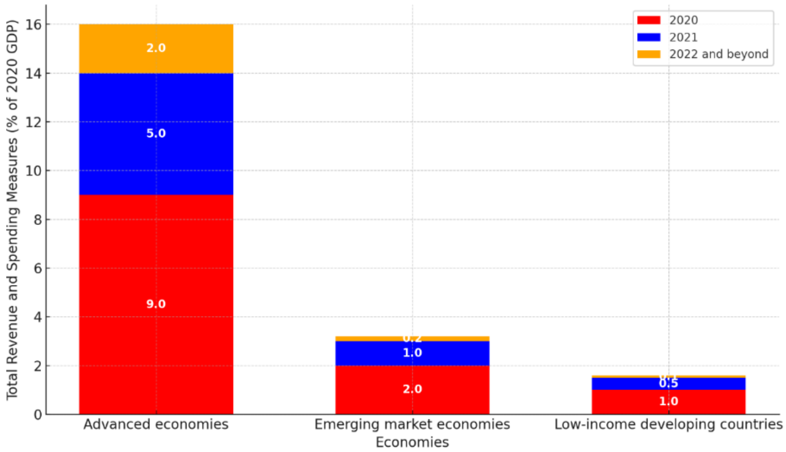

*Source:* Ebrahimy et al. (2020).

Figure 3 shows that throughout all economic groups, inflation rose after the pandemic started, especially after February 2020. As a result of both pent-up demand and problems in the supply chain, the headline CPI (solid blue line) went up in advanced economies but stayed fairly moderate.

Additionally, the core CPI in these economies (the dashed blue line) followed a comparable pattern, but it changed less, suggesting that inflationary pressures were more stable. Rising prices in both the headline (solid red line) and core (dashed red line) CPI were higher in emerging market economies. This is because these economies are more sensitive to changes in demand and supply chains. But developing countries with low incomes, which are shown by the solid light blue line, had lower and more stable inflation rates throughout the period, though they did slightly rise near the end. Varying inflation rates show that different areas have different economic situations and inflationary pressures. Although advanced economies should only experience short-term inflation that will return to levels seen before the pandemic as supply chains get back to normal, emerging markets may have longer-lasting inflationary problems because of structural factors and ongoing supply chain problems.

**Figure 4**

*Economic Recovery Trends in Advanced Economies vs. Emerging Markets*

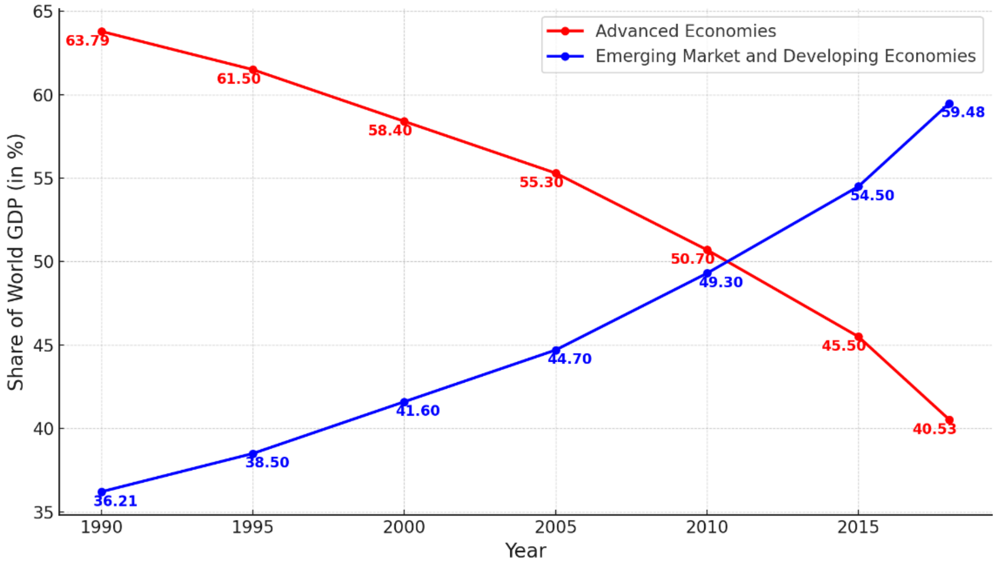



*Source:* International Monetary Fund (2020).

Figure 4 illustrates the divergence in fiscal support provided by different types of economies—advanced, emerging market, and low-income developing countries—in response to the COVID-19 pandemic, measured as a percentage of 2020 GDP. Advanced economies exhibited the highest levels of fiscal support, with significant measures continuing into 2021 and beyond. The breakdown shows that the bulk of this support was provided in 2020, with substantial contributions continuing in 2021 (blue) and additional, albeit smaller, measures in 2022 and beyond (yellow). In contrast, emerging market economies and low-income developing countries provided much lower levels of fiscal support, primarily concentrated in 2020, with minimal extensions into 2021 and beyond. This suggests that while advanced economies had the resources to sustain prolonged fiscal interventions, most support in emerging and developing economies was short-lived, largely due to resource constraints.

**Figure 5**

*Shift in Global Economic Power 1990–2018*




*Source:* International Monetary Fund (2023).

In 1990, advanced economies held a dominant share of global GDP at 63.79%, while emerging market and developing economies accounted for only 36.21% depicted in Figure 5. The advanced economies' share of the world's GDP has steadily gone down over the years, reaching 40.53% in 2018. On the other hand, emerging markets' share grew a lot, reaching 59.48% in 2018. This crossover, which happened around 2010, shows how the global economy is changing, with emerging economies becoming more important in driving growth around the world. This change shows how quickly these areas have become industrialized, their populations and economies have grown, which is faster than the growth of more developed economies.

The study finds that the state of the economy before stimulus measures are put in place, the quality of government, and the strength of institutions all play a big role in how well they work. It is clear from these results how important it is for each country's economic policies to be shaped by its own strengths and needs. The results are very helpful for policymakers because they show how important it is to think about both the short- and long-term effects and use the right strategies. It helps make economic policies that are more adaptable and stronger so they can better handle adversities in the future.

## Discussion

The pros and cons of the different economic stimulus plans that were put in place around the world from 2020 to 2023 in response to the COVID-19 pandemic and other major global problems are shown in this systematic review. A close study of monetary policy, especially interest rate cuts and quantitative easing (QE), reveals that they have big short-term effects on keeping financial markets stable and strengthening the economy. It was because of QE that the economy did not fall even further into a deeper recession during the pandemic. The fact that stock market prices went up 8.5% while long-term interest rates went down an average of 0.75% shows this. Researchers Yotzov et al. (2020), Macchiarelli et al. (2021), and Küçük et al. (2021) also said they were concerned about how long these rules would last. There is a big problem with the risk of asset bubbles and rising income inequality because rising asset prices help rich people more than other people.

The review also shows that fiscal boost measures, like increased government spending and lower taxes, helped to lessen the effects of the pandemic on the economy, especially in countries with high incomes. With values of 1.5 for government spending and 0.9 for tax relief, the fiscal multipliers show that fiscal measures were very important in keeping GDP growth going during the crisis. These results are in line with what Sufi and Taylor (2022) found, which is that strong and timely fiscal measures are needed during economic crises. But these actions have caused a big rise in public debt, which makes people worry about the long-term viability of the government's finances. This problem is similar to Ramey (2019) study, which shows how important it is to find a balance between helping the economy right now and being responsible with money in the future. Politicians need to think about ways to handle the public debt that do not slow down economic growth (Makin and Layton, 2021; Rahman et al., 2019; Yusuf & Mohd, 2021).

Investing in green energy and digital infrastructure has become an important way to make economies more stable, especially in wealthy economies. Countries that put these investments first had faster GDP growth rates. For example, countries that invested in digital infrastructure saw their GDP grow by 3.2% on average, while countries that invested less only saw their GDP grow by 1.5%. This backs up what Hysa et al. (2020), Kihombo et al. (2021), and Ulucak (2020) said about how important technology and sustainability are to current economic growth. The move towards a more digital and environmentally friendly economy seems to be both a reaction to the pandemic and a long-term plan to make the economy stronger. More study is needed to find out how emerging markets can get around problems like lack of capital and technological know-how that stop them from investing in these important areas.

The comparative analysis shows that economic stimulus measures work very differently in different places and economic situations. In general, monetary and fiscal policies helped advanced countries more than emerging markets, especially when it came to getting money for big investments. This result fits with what other research has found, which is that structural and institutional weaknesses make stimulus measures less effective in developing countries. For example, the IMF and World Bank reports stress how important good governance and institutional capacity are for putting economic policies into action. It is very important, then, that policy interventions are tailored to each country's unique economic situations and institutional frameworks. In a wider sense, this also shows that the global economic recovery isn't happening evenly, and countries may need to work together to help weaker economies recover.

This review shows how important it is to have economic strategies that are tailored to each situation and for policy methods to keep getting better. Traditional economic strategies may not work as well as they used to because the global economy is still facing problems like climate change, new technologies, and political unrest. In the future, researchers should focus on making economic plans that are adaptable and flexible so that they can deal with these new world problems. The results also show that economic policymakers should put more stress on sustainability and fairness. This would make sure that the benefits of growth are shared more evenly throughout society.

**Limitations of the Study**

One limitation of the current study is its reliance on published literature from 2020 to 2022, which may not capture the full long-term effects of the economic stimulus measures implemented in response to the COVID-19 pandemic. The rapidly evolving economic landscape and the delayed impacts of some policies could result in an incomplete assessment of their effectiveness. Additionally, the study primarily focuses on quantitative data, which may overlook qualitative factors such as political influences and public sentiment that can significantly affect the success of economic policies. Furthermore, the study's scope is limited to sources available in English, potentially excluding relevant research published in other languages and thus limiting the generalizability of the findings. In light of the findings, future research should focus on examining the long-term impacts of economic stimulus measures, particularly the sustainability of monetary policies like quantitative easing, which may contribute to asset bubbles and increased income inequality. Additionally, further investigation is needed into the differential effects of fiscal policies across various economic contexts, especially in emerging markets where the effectiveness of these measures may vary due to structural and institutional factors. Research should also explore innovative strategies to address public debt challenges while maintaining economic growth. Finally, studies should consider the broader societal impacts of investments in digital infrastructure and green energy, with an emphasis on reducing inequality and ensuring inclusive, equitable growth.

**Conclusions and Implications**

The systematic review results give a full picture of how well the different global economic stimulus measures that were put in place in reaction to the COVID-19 pandemic and other major global disruptions. The results show that monetary policies, especially quantitative easing, were good at keeping the financial markets stable in the short term. But their long-term viability is uncertain because of risks like asset bubbles and income inequality. During the crisis, fiscal policies, especially government spending, were very important for keeping the economy growing. Responses that were bolder in terms of fiscal policy had higher fiscal multipliers. But the rise in public debt that comes with it makes people worry about the long-term viability of the budget. Putting money into green energy and digital infrastructure has made economies stronger and helped them grow, mainly in developed economies. However, developing markets are still having trouble getting the money and technology they need.

These results show importance of economic plans that are tailored to each situation and are also flexible and long-lasting. Fiscal responsibility and fair growth over the long term must be balanced by policymakers with a short-term economic recovery. The move towards sustainability and digitization is both a response to the pandemic and a plan for making things stronger in the long term. Future studies should explore different types of money tools that can help the economy get through tough times and lower the risks that come with quantitative easing, like asset bubbles and income inequality. It's worth considering how these tools might be altered to fit various economic situations, especially those that are still expanding. More research needs to be done to find ways to handle the long-term costs of big government spending. To achieve this, we could explore new fiscal policies that can balance the need for quick economic support with the need for long-term financial stability. Additionally, it is important to think about how teaming up with other nations can assist debt-ridden nations. Emerging markets have a hard time getting the cash they need to put into digital infrastructure and clean energy. Researchers should look into ways to make these investments easier in the future. We might need to find new, long-term ways to help these areas grow, like public-private partnerships, new financial tools, or programs that bring in money and people from other countries.

***Suggestions for Future Research***

As digital infrastructure gets more important to the economy, it is important to look at how it changes income and social inequality. In the future, more research should be done on how digitalization can be used to make sure that everyone gets a fair share of the benefits of growth, especially when it comes to access to technology and education. The world economy is likely to face new issues in the next few years, such as climate change, changes in technology, and better political situations around the world. The main goal of research should be to come up with flexible economic plans that can handle these changing issues and help fair progress over the long term. By filling in these gaps in research, future studies can help make economic policies that work better and last longer, which can support long-term economic stability and prosperity around the world.

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**References**


Aizenman, J., & Ito, H. (2020). *US macro policies and global economic challenges* (Working paper no. 28232). National Bureau of Economic Research. https://doi.org/10.3386/w28232

Aksakal, B. S. (2019). World bank and Keynesian economics. *Business and Economics Research Journal*, *10*(1), 77–94. https://www.ceeol.com/search/article-detail?id=742380

Auerbach, A., Gorodnichenko, Y., McCrory, P. B., & Murphy, D. (2022). Fiscal multipliers in the COVID19 recession. *Journal of International Money and Finance*, *126*, Article 102669. https://doi.org/10.1016/j.jimonfin.2022.102669

Aydin, C., & Esen, Ö. (2019). Does too much government spending depress the economic development of transition economies? Evidences from dynamic panel threshold analysis. *Applied Economics*, *51*(15), 1666–1678. https://doi.org/10.1080/00036846.2018.1528335

Botev, J., Égert, B., & Jawadi, F. (2019). The nonlinear relationship between economic growth and financial development: Evidence from developing, emerging and advanced economies. *International Economics*, *160*, 3–13. https://doi.org/10.1016/j.inteco.2019.06.004

Bremer, B. (2021). The political economy of the SPD reconsidered: Evidence from the great recession. In T. Schulze-Cleven & S. A. Rothstein (Eds.), *Imbalance* (pp. 153–175). London: Routledge. https://doi.org/10.4324/9781003137108-9

Bremer, B., & McDaniel, S. (2020). The ideational foundations of social democratic austerity in the context of the great recession. *Socio-Economic Review*, *18*(2), 439–463. https://doi.org/10.1093/ser/mwz001

Cao, Z., & Shi, X. (2021). A systematic literature review of entrepreneurial ecosystems in advanced and emerging economies. *Small Business Economics*, *57*, 75–110. https://doi.org/10.1007/s11187-020-00326-y

Cashman, K., Arauz, A., & Merling, L. (2022). Special drawing rights: The right tool to use to respond to the pandemic and other challenges. *Challenge*, *65*(5–6), 176–198. https://doi.org/10.1080/05775132.2022.2134638

Cevese, M. (2022). The economic impact of COVID-19 lockdown policies in Argentina. In P. Sutoris, S. Murphy, A. Mendes Borges, & Y. Nehushtan (Eds.), *Pandemic Response and the Cost of Lockdowns* (pp. 114–126). London: Routledge. https://doi.org/10.4324/9781003259336-11

Chugunov, I., Makohon, V., Vatulov, A., & Markuts, Y. (2020). General government revenue in the system of fiscal regulation. *Investment management and financial innovations*, *17*(1), 134–142. http://dx.doi.org/10.21511/imfi.17(1).2020.12

Clemens, J., & Veuger, S. (2020). Implications of the COVID-19 pandemic for state government tax revenues. *National Tax Journal*, *73*(3), 619–644. https://www.journals.uchicago.edu/doi/abs/10.17310/ntj.2020.3.01

Danylyshyn, B., & Bohdan, I. (2022). Monetary policy during the wartime: How to ensure macroeconomic stability. *Investment Management and Financial Innovations*, *19*(2), 344–359. https://doi.org/10.21511/imfi.19(2).2022.30

Deb, P., Furceri, D., Ostry, J. D., Tawk, N., & Yang, N. (2021). The effects of fiscal measures during COVID-19. *Journal of Money, Credit and Banking*. https://onlinelibrary.wiley.com/doi/abs/10.1111/jmcb.13154

Di Pietro, M., Marattin, L., & Minetti, R. (2020). Fiscal policies amid a pandemic: The response of Italy to the COVID-19 crisis. *National Tax Journal*, *73*(3), 927–950. https://doi.org/10.17310/ntj.2020.3.13

Ebrahimy, E., Igan, D., & Peria, S. M. (2020). *The impact of Covid-19 on inflation: Potential drivers and dynamics*. International Monetary Fund. https://www.imf.org/-/media/Files/Publications/covid19-special-notes/en-special-series-on-covid-19-the-impact-of-covid-19-on-inflation-potential-drivers-and-dynamics.ashx

Echarte Fernández, M. Á., Náñez Alonso, S. L., Jorge-Vázquez, J., & Reier Forradellas, R. F. (2021). Central banks' monetary policy in the face of the COVID-19 economic crisis: Monetary stimulus and the emergence of CBDCs. *Sustainability*, *13*(8), Article 4242. https://doi.org/10.3390/su13084242

Faria-e-Castro, M. (2021). Fiscal policy during a pandemic. *Journal of Economic Dynamics and Control*, *125*, Article 104088. https://doi.org/10.1016/j.jedc.2021.104088

Gannon, B., & Roberts, J. (2020). Social capital: Exploring the theory and empirical divide. *Empirical Economics*, *58*(3), 899–919. https://doi.org/10.1007/s00181-018-1556-y

Gill, S., & Biscahie, T. (2022). New constitutionalism and the EU: Its limits and prospects beyond the COVID-19 pandemic. *New Political Science*, *44*(4), 524–544. https://doi.org/10.1080/07393148.2022.2129925

Gourinchas, P. O., Kalemli-Özcan, Ṣ., Penciakova, V., & Sander, N. (2021). *Fiscal Policy in the Age of COVID: Does it 'Get in all of the Cracks?'* [Working paper no. 29293]. National Bureau of Economic Research. https://doi.org/10.3386/w29293

Hysa, E., Kruja, A., Rehman, N. U., & Laurenti, R. (2020). Circular economy innovation and environmental sustainability impact on economic growth: An integrated model for sustainable development. *Sustainability*, *12*(12), Article 4831. https://doi.org/10.3390/su12124831

International Monetary Fund. (2020). *Fiscal monitor, April 2020: Policies to support people during the COVID-19 pandemic*. https://www.imf.org/en/Publications/FM/Issues/2020/04/17/Fiscal-Monitor-April-2020-Policies-to-Support-People-During-the-COVID-19-Pandemic-49278

International Monetary Fund. (2023). *World economic outlook: A rocky recovery*. https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023

Junior, C. J. C., Garcia-Cintado, A. C., & Junior, K. M. (2021). Macroeconomic policies and the pandemic-driven recession. *International Review of Economics & Finance*, *72*, 438–465. https://doi.org/10.1016/j.iref.2020.12.010

Karine, H. A. J. I. (2021). E-commerce development in rural and remote areas of BRICS countries. *Journal of Integrative Agriculture*, *20*(4), 979–997. https://doi.org/10.1016/S2095-3119(20)63451-7

Kihombo, S., Ahmed, Z., Chen, S., Adebayo, T. S., & Kirikkaleli, D. (2021). Linking financial development, economic growth, and ecological footprint: what is the role of technological innovation?. *Environmental Science and Pollution Research*, *28*(43), 61235–61245. https://doi.org/10.1016/j.scitotenv.2020.136504

Kim, H., & Rhee, D. E. (2022). The effects of asset prices on income inequality: Redistribution policy does matter. *Economic Modelling*, *113*, Article 105899. https://doi.org/10.1016/j.econmod.2022.105899

Klein, V. B., & Todesco, J. L. (2021). COVID-19 crisis and SMEs responses: The role of digital transformation. *Knowledge and Process Management*, *28*(2), 117–133. https://onlinelibrary.wiley.com/doi/abs/10.1002/kpm.1660

Koasidis, K., Nikas, A., Van de Ven, D. J., Xexakis, G., Forouli, A., Mittal, S., ... & Doukas, H. (2022). Towards a green recovery in the EU: Aligning further emissions reductions with short-and long-term energy-sector employment gains. *Energy Policy*, *171*, Article 113301. https://doi.org/10.1016/j.enpol.2022.113301

Küçük, H., Lenoël, C., & Macqueen, R. (2021). 1 UK economic outlook: Brisk but not better growth. *National Institute Economic Review*, *256*, Article e1. https://doi.org/10.1017/nie.2021.16

Levingston, O. (2021). Minsky's moment? The rise of depoliticised Keynesianism and ideational change at the Federal Reserve after the financial crisis of 2007/08. *Review of International Political Economy*, *28*(6), 1459–1486. https://doi.org/10.1080/09692290.2020.1772848

Lewis, V., & Roth, M. (2019). The financial market effects of the ECB's asset purchase programs. *Journal of Financial Stability*, *43*, 40–52. https://doi.org/10.1016/j.jfs.2019.05.001

Macartney, H., Montgomerie, J., & Tepe, D. (2022). Inequality and the Asset Economy. In *The Fault Lines of Inequality: COVID 19 and the Politics of Financialization* (pp. 17–35). Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-030-96914-1_2

Macchiarelli, C., Naisbitt, B., Boshoff, J., Holland, D., Hurst, I., Liadze, I., ... & Whyte, K. (2021). Global Economic Outlook: Slowing growth, rising inflation fears. *National Institute Economic Review*, *258*, Article e2. https://doi.org/10.1017/nie.2021.45

Makin, A. J., & Layton, A. (2021). The global fiscal response to COVID-19: Risks and repercussions. *Economic Analysis and Policy*, *69*, 340–349. https://doi.org/10.1016/j.eap.2020.12.016

Markkanen, S., & Anger-Kraavi, A. (2019). Social impacts of climate change mitigation policies and their implications for inequality. *Climate Policy*, *19*(7), 827–844. https://doi.org/10.1080/14693062.2019.1596873

Mondejar, M. E., Avtar, R., Diaz, H. L. B., Dubey, R. K., Esteban, J., Gómez-Morales, A., ... Garcia-Segura, S. (2021). Digitalization to achieve sustainable development goals: Steps towards a Smart Green Planet. *Science of The Total Environment*, *794*, Article 148539. https://doi.org/10.1016/j.scitotenv.2021.148539

Moşteanu, N. R. (2020). Green sustainable regional development and digital era. In A. Sayigh (Ed.), *Green buildings and renewable energy: Med green forum 2019-part of world renewable energy congress and network* (pp. 181–197). Chan: Springer. https://doi.org/10.1007/978-3-030-30841-4_13

Muringani, J., Fitjar, R. D., & Rodríguez-Pose, A. (2021). Social capital and economic growth in the regions of Europe. *Environment and Planning A: Economy and Space*, *53*(6), 1412–1434. https://doi.org/10.1177/0308518X211000059

Muwani, T. S., Ranganai, N., Zivanai, L., & Munyoro, B. (2022). The global digital divide and digital transformation: The benefits and drawbacks of living in a digital society. In M. Zhou, G. Mahlangu, & C. Matsika (Eds.), *Digital Transformation for Promoting Inclusiveness in Marginalized Communities* (pp. 217–236). IGI Global. https://doi.org/10.4018/978-1-6684-3901-2.ch011

Park, H., & Choi, S. O. (2019). Digital innovation adoption and its economic impact focused on path analysis at national level. *Journal of Open Innovation: Technology, Market, and Complexity*, *5*(3), Article 56. https://doi.org/10.3390/joitmc5030056

Permanasari, V. Y., Nadjib, M., Sjaaf, A. C., Besral, & Anjani, A. A. (2022). The response of local governments in financing related to the COVID-19 pandemic: A literature review. *Journal of Public Health Research*, *11*(2). https://doi.org/10.4081/jphr.2021.2620

Powell, J. H. (2021). *Monetary policy in the time of COVID*. Board of Governors of the Federal Reserve System (US). https://econpapers.repec.org/paper/fipfedgsq/93064.htm

Pradhan, R. P., Arvin, M. B., Nair, M., Bennett, S. E., & Bahmani, S. (2019). Short-term and long-term dynamics of venture capital and economic growth in a digital economy: A study of European countries. *Technology in Society*, *57*, 125–134. https://doi.org/10.1016/j.techsoc.2018.11.002

Rahman, N. H. A., Ismail, S., & Ridzuan, A. R. (2019). How does public debt affect economic growth? A systematic review. *Cogent Business & Management*, *6*(1), Article 1701339. https://doi.org/10.1080/23311975.2019.1701339

Ramey, V. A. (2019). Ten years after the financial crisis: What have we learned from the renaissance in fiscal research?. *Journal of Economic Perspectives*, *33*(2), 89–114. https://doi.org/10.1257/jep.33.2.89

Romer, C. D. (2021). The fiscal policy response to the pandemic. *Brookings Papers on Economic Activity*, 89–110. https://www.jstor.org/stable/27093821

Romer, C. D., & Romer, D. H. (2019). *Fiscal space and the aftermath of financial crises: how it matters and why* [Working paper no. 25768]. National Bureau of Economic Research. https://www.nber.org/papers/w25768

Runde, D. F., Savoy, C. M., & Murphy, O. (2022). *Post-pandemic infrastructure and digital connectivity in the Indo-Pacific*. Center for Strategic and International Studies (CSIS). https://www.jstor.org/stable/pdf/resrep26994.pdf?acceptTC=true&coverpage=false&addFooter=false

Sadeh, A., Radu, C. F., Feniser, C., & Borşa, A. (2020). Governmental intervention and its impact on growth, economic development, and technology in OECD countries. *Sustainability*, *13*(1), Article 166. https://doi.org/10.3390/su13010166

Shah, S. S., Jalil, A., & Shah, S. A. H. (2020). Growth effects of religion dependent social capital: An empirical evidence. *Social Indicators Research*, *149*(2), 423–443. https://doi.org/10.1007/s11205-019-02253-2

Srinivasan, N., & Eden, L. (2021). Going digital multinationals: Navigating economic and social imperatives in a post-pandemic world. *Journal of International Business Policy*, *4*(2), 228–243. https://doi.org/10.1057%2Fs42214-021-00108-7

Sufi, A., & Taylor, A. M. (2022). Financial crises: A survey. *Handbook of International Economics*, *6*, 291–340. https://doi.org/10.1016/bs.hesint.2022.02.012

Taconet, N., Méjean, A., & Guivarch, C. (2020). Influence of climate change impacts and mitigation costs on inequality between countries. *Climatic Change*, *160*(1), 15–34. https://doi.org/10.1007/s10584-019-02637-w

Tan, C. T., Mohamed, A., Habibullah, M. S., & Chin, L. (2020). The impacts of monetary and fiscal policies on economic growth in Malaysia, Singapore and Thailand. *South Asian Journal of Macroeconomics and Public Finance*, *9*(1), 114–130. https://doi.org/10.1177/2277978720906066

Taylor, J. B. (2022a). The effect of the rescue plans and the need for policies to increase economic growth. *Journal of Policy Modeling*, *44*(4), 768–779. https://doi.org/10.1016/j.jpolmod.2022.09.004

Taylor, P. (2022b, May 23). *Nominal GDP driven by digitally transformed and other enterprises worldwide from 2018 to 2023 (in trillion U.S. dollars)*. Statista. https://www.statista.com/statistics/1134766/nominal-gdp-driven-by-digitally-transformed-enterprises/

Thacker, S., Adshead, D., Fay, M., Hallegatte, S., Harvey, M., Meller, H., ... Hall, J. W. (2019). Infrastructure for sustainable development. *Nature Sustainability*, *2*(4), 324–331. https://www.nature.com/articles/s41893-019-0256-8

Ulucak, R. (2020). How do environmental technologies affect green growth? Evidence from BRICS economies. *Science of the Total Environment*, *712*, Article 136504. https://doi.org/10.1016/j.scitotenv.2020.136504

Vagliasindi, M., & Gorgulu, N. (2021). *What have we learned about the effectiveness of infrastructure investment as a fiscal stimulus?: A literature review* [Working paper no. 9796]. World Bank Group. https://doi.org/10.3390/su13010166

Wu, Y., Wu, Y., Guerrero, J. M., & Vasquez, J. C. (2021). Digitalization and decentralization driving transactive energy Internet: Key technologies and infrastructures. *International Journal of Electrical Power & Energy Systems*, *126*, Article 106593. https://doi.org/10.1016/j.ijepes.2020.106593

Yotzov, V., Bobeva, D., Loukanova, P., & Nestorov, N. (2020). Macroeconomic implications of the fight against COVID-19: First estimates, forecasts, and conclusions. *Ikonomicheski Izsledvania*, *29*(32), 3–28. https://www.ceeol.com/search/article-detail?id=853201

Yusuf, A., & Mohd, S. (2021). The impact of government debt on economic growth in Nigeria. *Cogent Economics & Finance*, *9*(1), Article 1946249. https://doi.org/10.1080/23322039.2021.1946249