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ARTICLE

The Role of Fiscal vs Monetary Policy in Modern Economics

Tereza Martin, Veronika Ondra, and Karolina Dominik*

Institute of Information Theory and Automation, Czech Academy of Sciences, Pod vod´arenskou ve˘zi 4, CZ-182 08 Prague 8, Czech Republic

*Corresponding author: karol.dom@utia.cas.cz

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Abstract

In modern economics, fiscal and monetary policies are critical tools used by governments and central banks to influence a nation's economic performance. Fiscal policy involves government spending and taxation decisions aimed at influencing economic activity. By adjusting spending levels and tax rates, governments can either stimulate growth during economic downturns or cool down inflationary pressures during booms. Key components include public expenditure on infrastructure, healthcare, and education, as well as tax incentives to boost investment and consumption. Monetary policy, managed by central banks, involves regulating the money supply and interest rates to control inflation, stabilize currency, and achieve full employment. Through mechanisms such as open market operations, interest rate adjustments, and reserve requirements, central banks influence lending, borrowing, and overall economic activity. The interplay between fiscal and monetary policy is essential in shaping economic outcomes. While fiscal policy directly impacts aggregate demand through government spending and taxation, monetary policy indirectly influences economic conditions by modifying the cost and availability of money. In recent years, the synchronization of these policies has become increasingly important, particularly in responding to global financial crises and economic recessions. Effective coordination can enhance economic stability and growth, whereas conflicts between the two can lead to inefficiencies and suboptimal outcomes. Understanding the distinct roles and collaborative potential of fiscal and monetary policy is crucial for effective economic management in today's complex economic environment.

Keywords: Aggregate Demand; Central Banks; Economic Growth; Government Spending; Inflation Control; Interest Rates; Taxation

Abbreviations: BOC: Bank of Canada, BOE: Bank of England, BOJ: Bank of Japan, ECB: European Central Bank, QE: Quantitative Easing, RBNZ: Reserve Bank of New Zealand, SNB: Swiss National Bank, RBA: Reserve Bank of Australia

1. Introduction

The management of an economy is a delicate balancing act, with fiscal and monetary policies acting as the twin levers that drive economic stability and growth. Fiscal policy, centered around government taxation and spending decisions, aims to influence the total level and composition of spending in the economy. In contrast, monetary policy, implemented by central banks, focuses on managing interest rates, inflation, and the overall money supply to promote sustainable economic growth and price stability [1, 2, 3, 4]. These two crucial instruments – fiscal policy wielded by governments and monetary policy controlled by central banks like the Federal Reserve and European Central Bank – work in tandem to navigate economic challenges such as recessions, inflation, and unemployment. While fiscal measures like taxation and government spending directly impact aggregate demand, monetary tools like interest rate adjustments and actions by commercial banks indirectly influence

consumer spending, investment, and economic activity [5, 6, 7]. Monetary policy and fiscal policy are the two primary tools employed by governments and central banks to influence economic conditions and achieve specific objectives. While they share some overarching goals (see Fig. 1), such as promoting stable and sustainable economic growth, their definitions and specific objectives differ [8, 9].

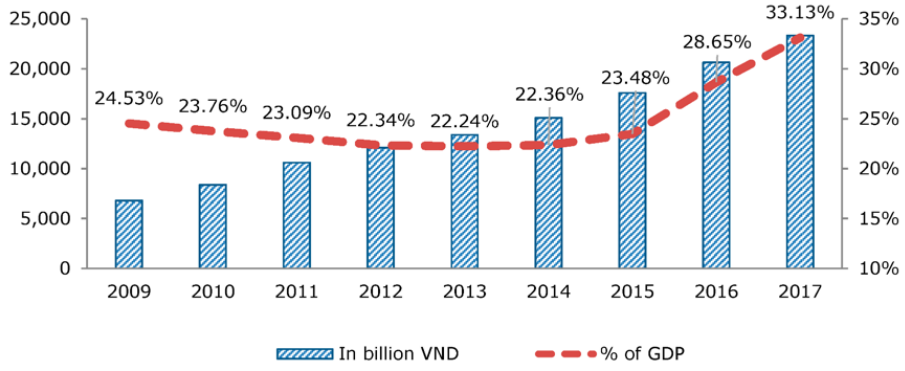

Figure 1. Private investment in Vietnam, 2009–2017.

1.1 Monetary Policy:

- Refers to the activities undertaken by central banks to influence the quantity of money and credit in an economy.
- The primary objectives of monetary policy include:
  1. Price stability: Maintaining low and stable inflation rates, typically around 2
  2. Maximum employment: Achieving a high level of employment and economic output.
- Central banks, such as the European Central Bank (ECB) and the Federal Reserve (Fed), have well-defined and clearly stated goals for monetary policy [10, 11].

1.2 Fiscal Policy:

- Refers to the government's decisions regarding taxation and spending.
- The main objectives of fiscal policy include:
  1. Promoting stable and sustainable economic growth.
  2. Reducing poverty and income inequality.
  3. Macroeconomic stabilization: Smoothing out economic fluctuations and mitigating the impact of recessions.

While monetary policy operates through influencing the money supply and interest rates, fiscal policy works by directly affecting aggregate demand through government spending and taxation. Both policies aim to create an economic environment characterized by stable growth, low inflation, and high employment levels [12, 13, 14].

2. Monetary Policy Institutions

The Federal Reserve System is the central banking system of the United States and is responsible for setting monetary policy. The Federal Open Market Committee (FOMC) is the monetary policy-making body of the Federal Reserve, consisting of 12 members (see Fig. 2). The FOMC holds 8

regularly scheduled meetings per year to review economic and financial conditions and determine the appropriate stance of monetary policy [15, 16, 17].

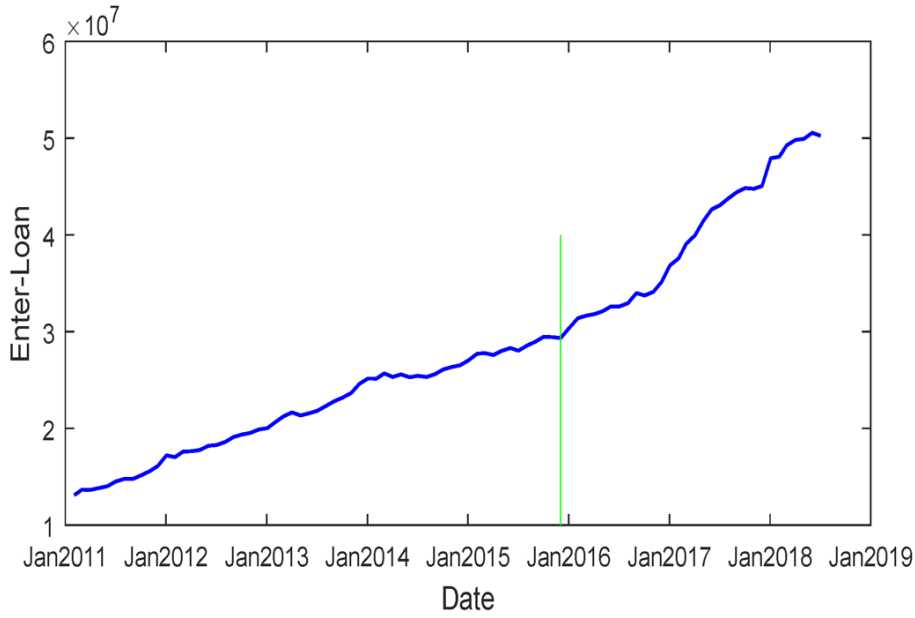

Figure 2. The Enter-Loan graph (Unit: 10,000 Yuan).

The Federal Reserve controls the three tools of monetary policy:

1. Open market operations
2. The discount rate
3. Reserve requirements

The Board of Governors is responsible for the discount rate and reserve requirements, while the FOMC is responsible for open market operations. The Federal Reserve and other major central banks have similar approaches to monetary policy that are systematic, transparent, and forward-looking:

- Central banks are highly transparent, explaining policy decisions and the rationale behind them to the public.
- Central banks take a forward-looking approach, considering not only current economic conditions but also the expected evolution of the economy and associated risks.
- Central banks regularly communicate their policy decisions and the reasoning behind them through statements, press conferences, minutes, reports, speeches, and testimony [18].

Other major central banks responsible for monetary policy in their respective countries include:

- The European Central Bank (ECB)
- Bank of England (BOE)
- Bank of Japan (BOJ)
- Swiss National Bank (SNB)
- Bank of Canada (BOC)

- Reserve Bank of Australia (RBA)
- Reserve Bank of New Zealand (RBNZ)

These central banks generally meet 8-11 times per year to review economic conditions and make monetary policy decisions. While independent from their national governments, central banks are accountable to the public and Congress/Parliament [19]. In contrast, the U.S. Treasury is responsible for fiscal policy, printing and minting currency, and managing government debt. Private commercial banks also play a key role in money creation through the fractional reserve banking system [20].

3. Policy Tools and Mechanisms

Central banks and governments employ a range of tools and mechanisms to implement monetary and fiscal policies effectively. These tools aim to influence various economic variables and achieve specific objectives [21].

3.1 Monetary Policy Tools:

1. **Open Market Operations:** Central banks buy or sell government securities to control the money supply and influence short-term interest rates. Buying securities (expansionary policy) increases the money supply, while selling securities (contractionary policy) reduces it.
2. **Interest Rates:**
   - **Federal Funds Rate:** The Federal Reserve's primary tool is adjusting the federal funds rate, which affects a wide range of interest rates and economic variables.
   - **Discount Rate:** The rate at which central banks lend to commercial banks, influencing the cost of borrowing.
   - **Interest on Reserve Balances:** Central banks pay interest on excess reserves held by banks, incentivizing or discouraging lending.
3. **Reserve Requirements:** The amount of cash that banks must hold in reserve, either in their vaults or at the central bank. Lower requirements allow banks to lend more, while higher requirements are contractionary.
4. **Inflation Targeting:** Central banks aim to maintain a target inflation rate, typically around 2%, to avoid deflation and high inflation.
5. **Unconventional Tools:**
6. **Quantitative Easing:** Large-scale asset purchases by central banks to increase the money supply and lower long-term interest rates.
7. **Credit Easing:** Targeted purchases of specific securities to support credit markets.

3.2 Fiscal Policy Tools:

1. **Government Spending:** Governments can increase or decrease spending on goods, services, and transfer payments to influence aggregate demand and economic activity.
2. **Taxation:** Changes in tax rates and policies can affect disposable income, consumer spending, and business investment.
3. **Debt Management:** Governments can issue or retire debt to finance spending or manage the money supply.
4. **Targeted Programs:** Fiscal policies can be designed to support specific sectors or groups, such as small businesses, low-income households, or industries affected by economic shocks.

The choice and combination of these tools depend on the specific economic conditions, objectives, and policy coordination between central banks and governments [22, 23, 24, 25].

4. Transmission Channels

The transmission mechanisms through which monetary and fiscal policies influence the economy are multifaceted and interconnected (see Fig. 3). Monetary policy operates primarily through several channels:

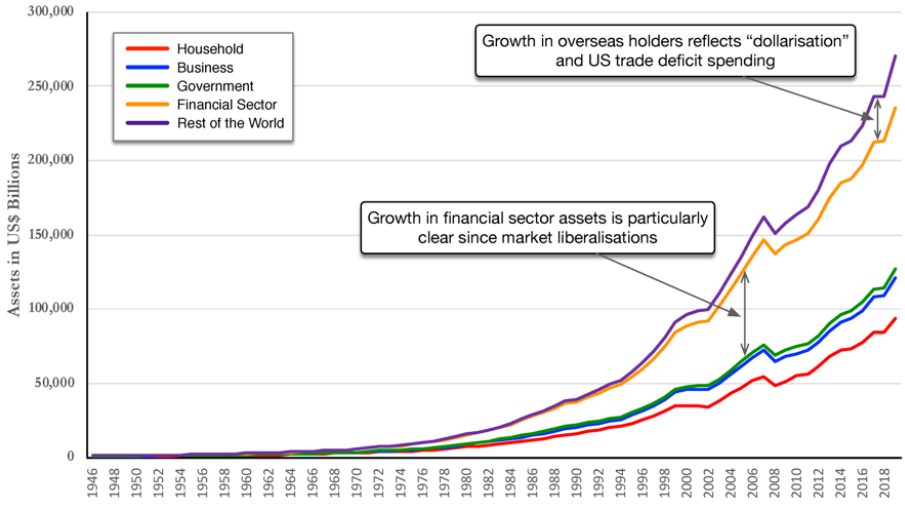

Figure 3. Growth in US Dollar financial assets, cumulative view.

1. **Interest Rate Channel:** Changes in the central bank's policy rate, such as the federal funds rate, directly impact short-term interest rates and subsequently influence longer-term interest rates. Lower interest rates encourage borrowing and investment, while higher rates have the opposite effect.
2. **Asset Price Channel:** Monetary policy decisions affect the prices of various assets, including stocks, bonds, and real estate. Changes in asset prices can impact household wealth and consumer spending, as well as the cost of capital for businesses.
3. **Exchange Rate Channel:** Adjustments in interest rates can influence the exchange rate of a country's currency. A lower interest rate tends to depreciate the currency, making exports more competitive and imports more expensive, thereby affecting net exports.
4. **Expectations Channel:** Central bank actions and communications shape public expectations about future inflation, economic growth, and policy decisions. These expectations can influence wage and price-setting behavior, as well as consumption and investment decisions.

Monetary policy also affects inflation expectations, as the public adjusts wage and price contracts based on the central bank's actions and communications [26]. However, monetary policy has limits in its ability to control the money supply directly.

On the other hand, fiscal policy operates through its direct impact on aggregate demand components:

- **Government Spending (G):** Increased government spending on goods, services, and transfer payments directly boosts aggregate demand, while spending cuts have the opposite effect.
- **Taxation:** Changes in tax rates affect disposable income for households and businesses, indirectly influencing private consumption (C) and investment (I).
- **Net Exports (NX):** Fiscal policy measures that affect exchange rates or the relative prices of domestic and foreign goods can impact net exports.

Fiscal policy works by directly affecting government spending (G) and indirectly affecting private consumption (C), private investment (I), and net exports (NX) through changes in taxes and transfers [27, 28, 29]. It's important to note that the transmission channels of monetary and fiscal policies are not independent; they interact and influence each other. For example, changes in interest rates can affect government borrowing costs and the effectiveness of fiscal stimulus measures [30, 31, 32].

5. Conventional vs. Unconventional Policies

While conventional monetary policy tools like adjusting interest rates and reserve requirements have been the traditional approach, central banks have increasingly turned to unconventional measures, particularly in the aftermath of the 2008 financial crisis (see Fig. 4). These unconventional policies include:

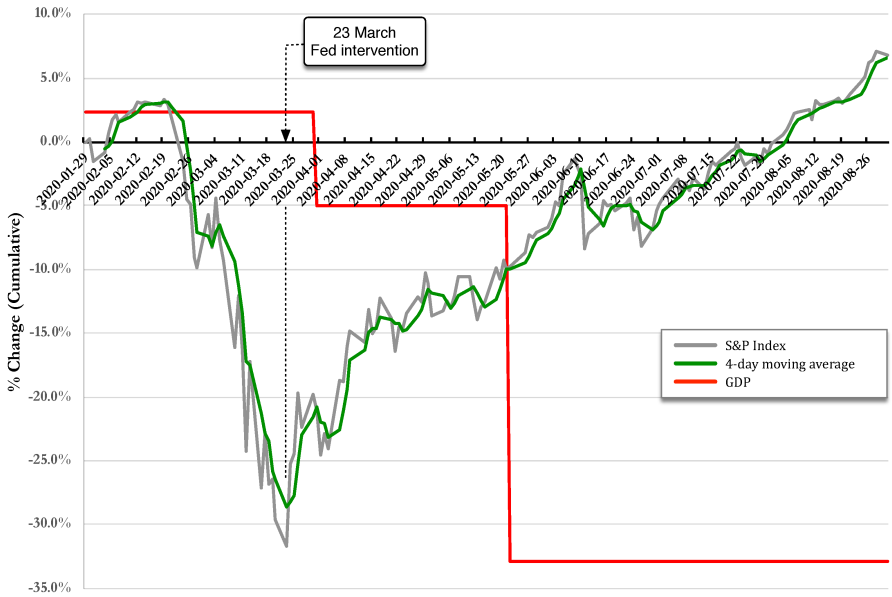

Figure 4. Cumulative % change in S&P Index during the 2020 pandemic.

1. **Quantitative Easing (QE):** Central banks purchase large quantities of government bonds and other securities to inject liquidity into the financial system and lower long-term interest rates. QE aims to stimulate economic activity by making borrowing cheaper and encouraging investment.
2. **Forward Guidance:** Central banks provide clear communication about their future policy intentions, shaping market expectations and influencing long-term interest rates.
3. **Negative Interest Rates:** In some cases, central banks have set negative interest rates, effectively charging banks for holding excess reserves. This unconventional measure aims to encourage lending and stimulate economic activity.

While these unconventional policies have been credited with helping to stabilize financial markets and support economic recovery, they have also raised concerns:

- **Potential Distortions:** Large-scale asset purchases and negative interest rates can distort financial markets and asset prices, potentially creating bubbles or misallocating resources.
- **Effectiveness Concerns:** There are debates about the diminishing returns of unconventional

policies, especially when interest rates are already low, and the ability of these measures to stimulate real economic activity.

- **Exit Challenges:** Unwinding unconventional policies can be challenging, as central banks must carefully manage the process to avoid disrupting financial markets and economic stability.

Unconventional policies have blurred the lines between monetary and fiscal policy, as central bank actions have direct implications for government borrowing costs and debt management. This has raised concerns about the independence of central banks and the potential for fiscal policy to influence monetary decisions [33, 34, 35, 36, 37, 38].

6. Coordination with Fiscal Policy

The coordination between fiscal and monetary policies is crucial for achieving macroeconomic stability and sustainable economic growth. While these two policy instruments have traditionally operated independently, with monetary policy focusing on price stability and fiscal policy targeting other objectives, there is a growing recognition of the potential benefits of policy coordination in certain circumstances (see Fig. 5) [39, 40, 41, 42].

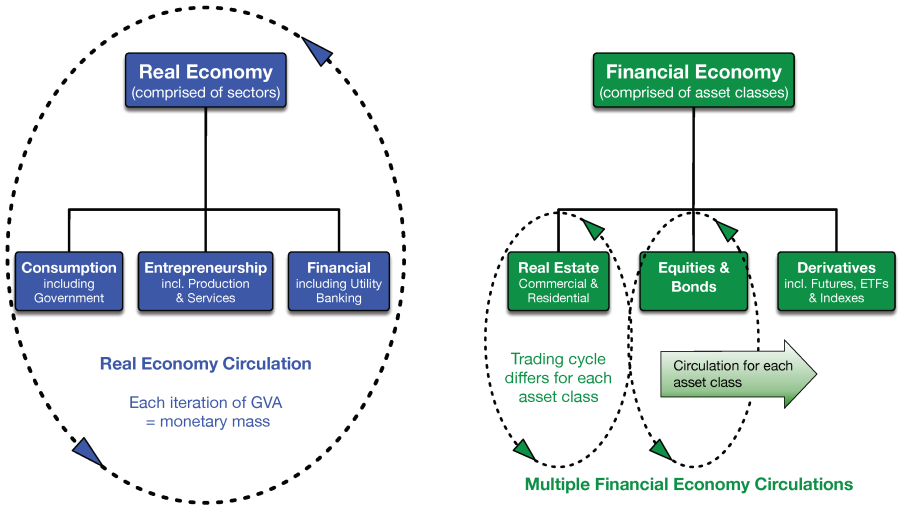

Figure 5. Circulation.

- **Reducing Cyclical Swings:** Simulations show that a coordinated approach between monetary and fiscal policy can reduce the optimal cumulative amount of interest rate cuts or hikes needed to achieve price stability. This coordination can help mitigate large cyclical swings in interest rates, which can have undesirable consequences for the economy and financial stability.
- **Addressing Inflation Deviations:** When inflation deviates from the target, a coordinated policy response can be more effective. When inflation is too low, fiscal stimulus could help boost inflation and reduce the extent of monetary accommodation needed. Conversely, when inflation is too high, fiscal restraint could help lower inflation and reduce the extent of monetary tightening required.
- **Exceptional Circumstances:** Recent theory suggests that in exceptional circumstances, temporary and limited coordination between monetary and fiscal authorities can help stabilize the economy, such as fiscal authorities temporarily running unsustainable deficits, while the central bank commits to guaranteeing government liabilities and not reacting to the resulting inflation.

However, this coordination must be strictly temporary and limited to avoid eroding the credibility of both institutions.

While policy coordination offers potential benefits, implementing it in practice poses several challenges:

1. **Calibrating the Right Policy Mix:** Determining the appropriate combination of fiscal and monetary policy measures to achieve the desired economic outcomes can be complex and challenging.
2. **Clear Communication:** Effective coordination requires clear communication and alignment between fiscal and monetary authorities, which can be difficult to achieve in practice.
3. **Fiscal Dominance Concerns:** There are concerns that coordinated policies could lead to fiscal dominance, where fiscal considerations dictate monetary policy decisions, undermining the central bank's independence and credibility.
4. **Temporary Nature:** As noted, any coordination between fiscal and monetary policies must be strictly temporary and limited, as prolonged coordination can erode the credibility of both institutions if not properly managed.

In the current high-inflation, high-debt environment, there is a strong argument for adhering to the traditional policy prescriptions of fiscal consolidation and central bank independence to maintain price stability. However, the explosion of public debt during the pandemic challenges the resilience of this model, highlighting the need for a credible understanding between fiscal and monetary authorities on how to contain vulnerability to expectations-driven crises [43, 44, 45, 46].

7. Global Monetary Policy Challenges

The persistently low interest rates in major advanced economies over the past eight years have posed significant challenges for the effectiveness of monetary policy. Despite central banks' efforts to stimulate economic growth and achieve their inflation targets through unconventional measures such as quantitative easing and forward guidance, the recovery has been lackluster, with output failing to return to pre-recession levels and inflation remaining stubbornly below targets (see Fig. 6) [47].

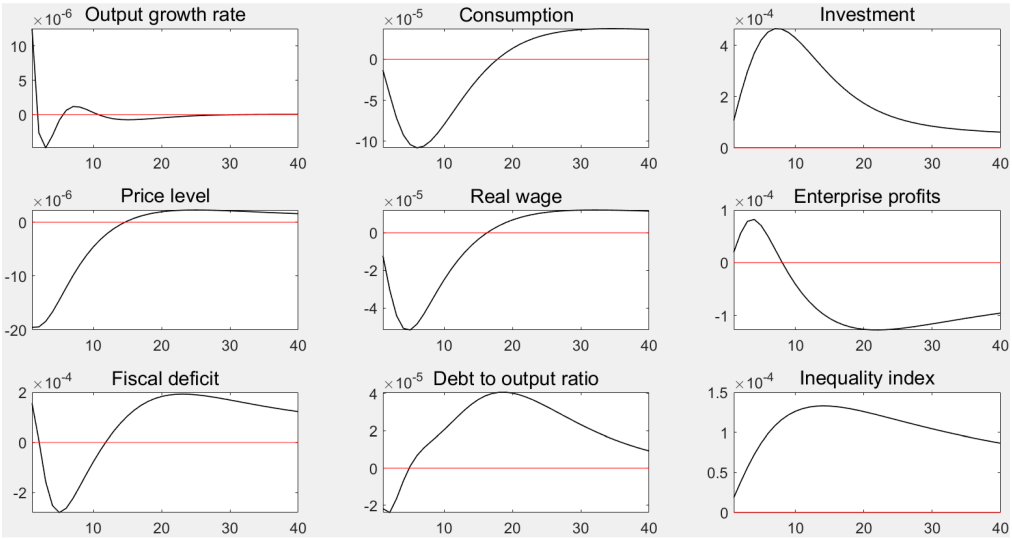

Figure 6. Effect of a 1% increase in the probability of a COVID-19 pandemic.

This phenomenon can be attributed to several headwinds stemming from the economic context:

1. **Debt Overhangs:** High levels of public and private debt can weigh on economic growth and dampen the impact of monetary policy. Households and businesses may prioritize debt repayment over consumption and investment, limiting the stimulative effects of lower interest rates.
2. **Impaired Financial Sectors:** The aftermath of the global financial crisis left many financial institutions with weakened balance sheets and tighter lending standards. This can restrict the flow of credit to the real economy, hindering the transmission of monetary policy through the banking system.
3. **Low Confidence:** Prolonged economic uncertainty and subdued growth prospects can erode consumer and business confidence, leading to a reluctance to spend and invest, even in the face of accommodative monetary policy.
4. **Slower Productivity Growth:** A slowdown in productivity growth, particularly in advanced economies, can limit the potential for sustainable economic expansion and make it more challenging for monetary policy to achieve its objectives.

These headwinds can weaken the effectiveness of monetary policy in several ways:

- **Diminished Interest Rate Sensitivity:** When households and businesses are burdened by high debt levels or lack confidence in the economic outlook, they may be less responsive to changes in interest rates, reducing the potency of this traditional monetary policy tool.
- **Constraints on Unconventional Measures:** While unconventional policies like quantitative easing and forward guidance have been employed to provide additional monetary stimulus, their effectiveness may be limited in the face of persistent headwinds and structural economic challenges.
- **Potential for Unintended Consequences:** Prolonged periods of ultra-low interest rates and large-scale asset purchases can create distortions in financial markets, potentially fueling asset bubbles or misallocating capital, which could undermine financial stability and long-term growth prospects.

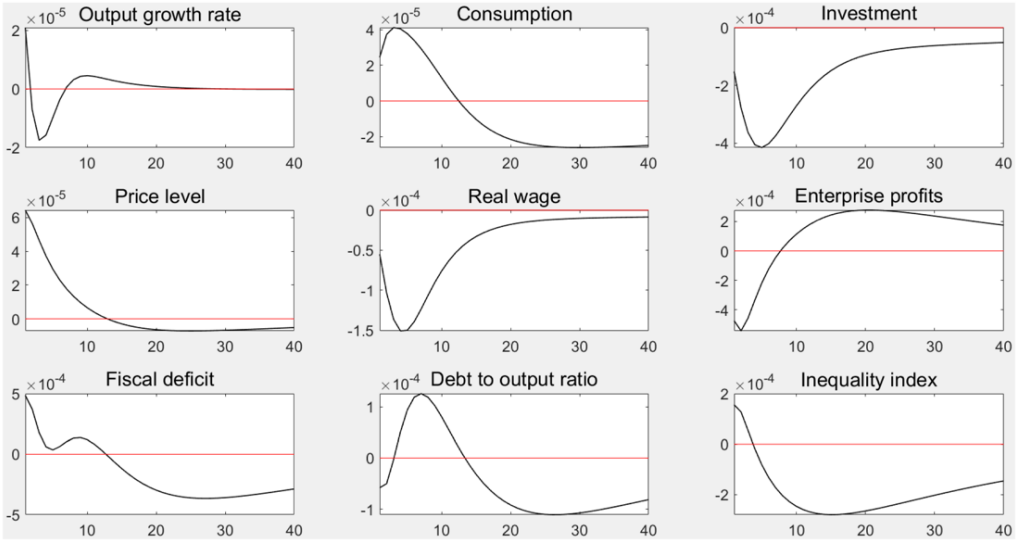

Figure 7. Effect of a 1% increase in the probability of a COVID-19 pandemic.

To address these challenges, central banks may need to explore new policy frameworks and tools,

while also emphasizing the importance of complementary fiscal and structural policies to support economic growth and address underlying structural issues (see Fig. 7) [48, 49]. Taxation and interest rates are two key levers that central banks and governments can utilize to navigate these global monetary policy challenges, but their effectiveness may be limited without addressing the underlying economic headwinds and implementing a coordinated policy approach [**47**, 50, 51, 52, 53].

8. Effectiveness and Limitations

The effectiveness of fiscal and monetary policies is influenced by various factors, and both instruments have their limitations in addressing economic challenges.

8.1 Fiscal Policy:

- Fiscal policy generally has a more direct impact on consumers through changes in employment, income, and spending. This direct impact on aggregate demand can make fiscal policy more effective in stimulating economic activity in the short run.
- However, the ability of governments to use fiscal policy is constrained by their fiscal space - access to financing at reasonable cost and concerns about sustainability of public debt.
- While reducing the public sector deficit can initially reduce output growth, it can also crowd in private investment and lead to higher growth in the longer term.

8.2 Monetary Policy:

- Deflation is usually harder to control than inflation. When interest rates are at or near zero, central banks have limited ability to further stimulate the economy.
- In a liquidity trap, when interest rates are close to zero and savings rates are high, monetary policy becomes ineffective.
- There is uncertainty about how the economy will react to expansionary or contractionary monetary policies. Economies may over or underreact to central bank policies.
- The timing and magnitude of the impact of monetary policy on the economy are uncertain.

8.3 Factors Affecting Effectiveness:

- The effectiveness of monetary policy depends on the economic conditions, including the level of economic activity, inflation expectations, and the state of financial markets.
- Monetary policy may not be effective in the face of other economic shocks, such as supply-side shocks that affect the economy's production capacity.
- When the money supply increases, banks may have excess reserves, causing short-term interest rates to decrease. This can limit the effectiveness of expansionary monetary policy.
- If the government reduces the money supply, for example through higher taxes, this can make an expansionary monetary policy ineffective.
- "Bond market 'vigilantes' can reduce demand for long-term bonds, raising yields and making expansionary monetary policy less effective."

While fiscal policy tends to have a more immediate and direct impact on the economy compared to monetary policy , both instruments face limitations and challenges in their effectiveness, depending on economic conditions and potential conflicts with other policy objectives [54, 55, 56].

9. Conclusion

The debate around the relative effectiveness and appropriate coordination of fiscal and monetary policies remains an ongoing discourse in modern economics. While both tools play crucial roles in managing economic stability and growth, their impact and limitations are shaped by various factors, including the prevailing economic conditions, structural challenges, and policy uncertainties. Ultimately, a nuanced and context-specific approach is often warranted, with policymakers carefully weighing the potential trade-offs and considering the unique dynamics of their respective economies. As economies continue to evolve and face new challenges, the optimal balance and coordination between fiscal and monetary policies will likely remain a topic of active discussion and research in the field of economics.

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