The Impact of U.S. Inflation on China's Macroeconomic Policy

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Abstract. U.S. inflation, driven by multiple factors, has exhibited significant volatility in recent years. Although the Consumer Price Index (CPI) had declined by July 2024, inflationary pressures persisted. This study examines the impact of U.S. inflation from 2019 to 2024 on China's policy landscape. U.S. inflation exerted multidimensional effects on China's economy through channels such as trade and exchange rates, manifesting in shifts to China's import-export volumes and fluctuations in the RMB exchange rate. To mitigate the adverse impacts of U.S. inflation, China adopted flexible monetary policies and proactive fiscal measures—maintaining interest rate flexibility in monetary policy while prioritizing investments in new infrastructure and livelihood-focused projects under fiscal policy. Moving forward (as of April 2025), China should focus on short-term economic stabilization and long-term industrial upgrading, while enhancing policy coordination to proactively address both challenges and opportunities arising from U.S. inflationary trends. The findings of this study provide a practical basis for the formulation of China' s macro policies and its future healthy development.

Keywords: U.S. inflation, China's policies, Trade impact, Exchange rate, Policy adjustments.

1. Introduction

In recent years, the occurrence of global health events has led to a worldwide surge in inflation. Countries across the globe have increasingly relied on expansionary monetary policies, with both China and the United States implementing varying degrees of monetary easing. To achieve full employment objectives, the U.S. Federal Reserve enacted substantial monetary easing from 2020 to 2021 while tolerating higher inflation levels, even as domestic inflationary pressures intensified in China. Starting with the Fed's Taper announcement in late 2021, U.S. monetary policy shifted from easing to tightening, culminating in a wave of interest rate hikes throughout 2022. Concurrently, global uncertainties have triggered dramatic increases in crude oil and other commodity prices. As a major commodity consumer, the U.S. faced rising import costs that further fueled domestic price surges, exacerbating inflationary pressures.

The escalating inflation amplified economic uncertainties, prompting the Federal Reserve to initiate a rate hike cycle in March 2022 that continued through August 2023. The federal funds rate rose from 0%-0.25% to a target range of 5.25%-5.5%. As the global liquidity gatekeeper, the Fed's inflation dynamics and policy adjustments generate significant spillover effects across international financial markets. China's ongoing financial market liberalization and RMB convertibility reforms have rendered its economy particularly susceptible to dollar exchange rate fluctuations. This study centers on "the impact of U.S. inflation on Chinese policymaking," systematically analyzing the transmission mechanisms of U.S. inflationary fluctuations (2019-2024) on the effectiveness of Chinese policy instruments and strategic transformation within a transnational policy interaction framework. It addresses existing research gaps in understanding the complexity of emerging economies' policy responses.

Through constructing a tripartite Trade-Exchange Rate-Capital Flow model, this research empirically reveals the asymmetric impacts of U.S. inflation via three channels: imported cost pressures, monetary policy spillovers, and industrial chain restructuring. These effects manifest in China's fiscal expenditure structure, exchange rate management flexibility, and industrial upgrading

processes. Key findings indicate that China's "structural policy toolkit" - featuring dynamic interest rate adjustments, targeted investments in new infrastructure, and deepened regional trade agreements - achieves synergistic outcomes in short-term risk mitigation and long-term competitiveness enhancement. This approach establishes a novel "policy resilience" paradigm for emerging economies confronting external shocks.

Focusing on "the impact of U.S. inflation on Chinese policies," this study employs multiple methodologies: (1) Literature review synthesizing domestic and international research to identify knowledge gaps; (2) Case analysis of representative economic events and datasets to dissect concrete manifestations of U.S. inflationary impacts; (3) Theoretical construction of a "Trade-Exchange Rate-Capital Flow" framework elucidating asymmetric shocks through imported pressures, monetary spillovers, and supply chain reconfiguration; (4) Using case studies to demonstrate the coordinated effects of China's policy instruments in stabilizing the economy while promoting transformation.

This research systematically investigates the transmission mechanisms and countermeasures of U.S. inflationary impacts on Chinese economic policies from 2019 to 2024, providing theoretical and practical foundations for understanding Sino-U.S. economic interactions and global governance. Addressing existing deficiencies in analyzing emerging economies' policy response complexity, particularly the lack of dynamic empirical examination of Sino-U.S. policy interactions, the study pursues three core objectives: First, deconstructing the causes and transmission channels of U.S. inflation while quantifying its asymmetric impacts on China's import-export scale, RMB exchange rate fluctuations, and industrial chain security. Second, evaluating the synergistic effects of China's innovative policy instruments (including structural monetary policies, new infrastructure investments, and regional trade agreements) in balancing short-term risk mitigation with long-term industrial upgrading. Third, employing case studies to empirically examine dynamic correlations between U.S. inflation indicators and Chinese fiscal/monetary variables, revealing time-lag effects of external shocks and optimization spaces for policy adjustments.

The study aims to establish a systematic analytical framework for emerging economies confronting external inflationary pressures, assisting China in balancing economic stability with strategic transformation under dual "short-term pressure and long-term opportunity" effects. Simultaneously, it provides decision-making references for international macroeconomic policy coordination and global value chain restructuring, ultimately contributing to building a more resilient global economic governance system.

2. Inflation in the United States

2.1. Current Situation of U.S. Inflation

In recent years, influenced by factors such as high fiscal expenditures, low tax revenues, rising yields of national treasury bonds, the promotion of new bills, as well as the sharp increase in fiscal expenditures caused by the global financial crisis and the COVID-19 pandemic, the fiscal deficit and the scale of public debt of the U.S. federal government have soared significantly, and the inflation rate has fluctuated remarkably.

The COVID-19 pandemic broke out globally in 2020, dealing a heavy blow to the world economy. The U.S. economy contracted sharply, the unemployment rate rose significantly, and the inflation rate was almost zero. The U.S. government and the Federal Reserve had to adopt relatively aggressive expansionary policies to increase government spending to stimulate demand and attempt to boost consumption.

The U.S. inflation rate (CPI) began to show an upward trend with fluctuations in 2021. It reached 2.6% in March of that year, 5.3% in June, "broke through 6" (6.2%) in October, and reached 8.5% in March 2022 [1]. In June 2022, it reached a high of 9.1%, setting a new historical high in more than 40 years. At the same time, it also had a huge impact on the U.S. economic market, leading the U.S. Congress to pass in September of the same year [2]. Although this bill is nominally aimed at curbing inflation, in fact, it may stimulate an increase in inflation and pose the risk of weakening the long-

term economic growth potential. Therefore, this bill laid the groundwork for the Federal Reserve to vigorously implement interest rate hikes in the future to achieve the original monetary policy target of controlling the inflation rate within 2%.

Although the U.S. CPI had dropped to 2.9% in July 2024, and the goal of 2% was already in sight, it should be noted that the CPI had dropped to 3% in June 2023. It took more than a year to drop from 3% to 2.9%, and inflation fluctuated repeatedly during this period. As of December 2024, the year-on-year increase in the U.S. CPI remained at 3.1%, and the core CPI stabilized at around 3.9%, significantly higher than the 2% target inflation rate set by the Federal Reserve, indicating greater inflationary pressure [3]. Overall, the impact of the Federal Reserve's policies cannot be underestimated.

From 2020 to 2021, in response to the economic recession, the Federal Reserve implemented an ultra-loose monetary policy. The federal funds rate was reduced to near zero, and at the same time, large-scale quantitative easing was carried out, injecting a huge amount of liquidity into the market, laying the groundwork for subsequent inflation. The Federal Reserve only started raising interest rates in March 2022, and its measures to deal with inflation were obviously lagging. At the same time, the new President Trump's proposal to increase tariffs also triggered concerns of the Federal Reserve about the rise in inflation.

2.2. Causes of U.S. Inflation

2.2.1. Demand pull

During the spread of the pandemic in the United States, in order to stimulate the deeply recessed economy, the U.S. government issued cash subsidies to residents several times, with a scale reaching hundreds of billions of dollars. The disposable income of residents increased significantly, and consumer demand rebounded rapidly. The ratio of the U.S. fiscal deficit to GDP increased sharply from 4.6% in 2019 to 14.7% in 2020, and then adjusted back to 5.4% in 2022.However, the pandemic led to disruptions in the global supply chain. The country lost a large number of labor forces, and some working-age people preferred to stay at home rather than work. The supply of goods and services could not keep up with the growth in demand in a timely manner. The imbalance between supply and demand pushed prices to rise continuously. At the same time, the Federal Reserve maintained low interest rates and quantitative easing policies for a long time, further stimulating demand and intensifying the contradiction between supply and demand.

2.2.2. Cost push

The international energy market is turbulent, with continuous geopolitical conflicts in the Middle East region, unstable crude oil supply, and significant price fluctuations. As the "blood of industry," the increase in the price of crude oil directly drives up transportation costs and production costs, and these costs are ultimately passed on to consumers. The global commodity market has been affected by factors such as the pandemic and extreme weather, and the prices of metals, agricultural products, etc. have continued to rise, increasing the production cost burden of U.S. enterprises and promoting the intensification of inflation. In addition, the disruption of the supply chain has made it more difficult for enterprises to obtain raw materials, further pushing up costs. Moreover, the United States' instigation of the Russia-Ukraine conflict has affected the increase in the price of fossil fuels, a major basic resource, indirectly stimulating inflation within the United States.

2.2.3. Policy factors

The Inflation Reduction Act of 2022 has not directly addressed the current inflation problems in the United States, which are caused by supply chain bottlenecks such as labor and energy shortages, overheating of demand under excessive liquidity, and inflation expectations [2]. Investments in energy and climate will immediately create inflationary pressure. Increasing taxes on large enterprises will limit investment and the improvement of the supply chain, increasing the difficulty of improving the supply-demand situation and affecting the speed of inflation's decline. Extending health insurance subsidies and reforming prescription drug pricing are more beneficial to low-income and elderly

groups. They have a high marginal propensity to consume, which may exacerbate short-term inflation problems. The Congressional Budget Office (CBO) of the United States analyzed and believed that the impact of this bill on inflation in 2023 is only between plus and minus 0.1 percentage points. Before that, it will not reduce inflation but will instead push up inflation [3].

2.2.4. Monetary factors

In response to the economic recession, the Federal Reserve launched an ultra-loose monetary policy mode. The federal funds rate was reduced to near zero, and at the same time, large-scale quantitative easing policies were implemented. By purchasing assets such as national treasury bonds, a huge amount of liquidity was injected into the market. Given that U.S. treasury bonds are denominated in U.S. dollars and foreign investors hold a large share, the U.S. government has a strong incentive to implicitly default through inflation to reduce the real purchasing power of its external debt. During the spread of the COVID-19 pandemic, in order to stimulate the deeply recessed economy, the United States adopted extremely expansionary fiscal and monetary policies. In particular, the Federal Reserve injected a huge amount of funds into the real economy through the "unlimited" quantitative easing policy, leading to a significant increase in the prices of international commodities and U.S. prices [4]. Within just two years, the scale of the Federal Reserve's balance sheet expanded sharply, and the money supply increased significantly. Too much money chasing limited goods and services will inevitably lead to a comprehensive rise in prices, becoming an important driving force for inflation. And the Federal Reserve did not adjust its monetary policy in a timely manner in the early stage of inflation, allowing the driving effect of monetary factors on inflation to accumulate continuously.

3. Impact of U.S. Inflation on China

3.1. Trade

3.1.1. Exports

U.S. dollar inflation to a certain extent will make China's export scale and growth rate decline. 2008 subprime crisis after the U.S. quantitative easing, quantitative easing in 2009 "beggar-thy-neighbor" effect superimposed on the financial crisis, resulting in China's total exports fell sharply, the growth rate of negative, 2008-2015 export scale growth rate continued to be lower than in the past and decline; 2014-2017 U.S. exit quantitative easing, a series of recovery of the dollar operation to change the trend of China's exports, after the withdrawal of the export growth rate has recovered, making China's export trend change; at the same time, exports are affected by the overall economic situation, 2020 new crown epidemic after the U.S. non-conventional monetary policy efforts than in 2008, and then start the Taper policy, and its monetary policy changes Influence inflation and other economic conditions because China's total exports and exports to the U.S. scale of change in the same trend; the U.S. imports to China are affected, which greatly affects China's total foreign trade [5].

3.1.2. Imports

From an import perspective, U.S. inflation tends to cause prices to rise, and the price of U.S. goods denominated in U.S. dollars climbs accordingly. China's imports from the United States of electromechanical and transportation equipment, chemical products, high-tech products, high-end luxury goods, and other non-essential goods—when prices rise, consumer demand for such products will subsequently decline, thus suppressing China's demand for imports from the United States. To some extent, Chinese companies are prompted to look for other alternative sources of imports. At the same time, international commodity prices denominated in U.S. dollars will fluctuate. China, as a large importer of commodities, will see a significant increase in the cost of importing raw materials like oil and iron ore. For example, higher oil prices will lead to higher costs in China's transportation industry, which in turn will affect the entire logistics industry and various industries that rely on logistics, compressing corporate profit margins. For some domestic economy’s dependent on imports

of commodities, if the United States inflation leads to price increases, even if China's imports are stable, the total amount of imports will increase, and companies may reduce imports due to cost pressures [6].

3.2. Exchange Rate Aspects

Inflation in the United States usually triggers adjustments in the Federal Reserve's monetary policy. To curb inflation, the Fed may adopt tight monetary policies such as interest rate hikes. The dollar interest rate hike will increase the yield of dollar assets, attracting global capital back to the United States, leading to the appreciation of the dollar and the relative depreciation of the RMB [7]. On the one hand, the depreciation of the RMB is favorable to Chinese export enterprises, making the number of foreign export products unchanged and profits increased. But on the other hand, the depreciation of the renminbi will also increase the cost of imports. At the same time, the exchange rate fluctuations of the renminbi will also affect the market expectations, for the confidence of foreign investment in the Chinese market has an impact on the foreign capital inflow and may lead to a reduction in the inflow of foreign capital. And from the perspective of China-U.S. trade analysis, if the U.S. inflation leads to a decline in its domestic demand, China's exports to the U.S. may be reduced, and the trade surplus shrinks. Changes in the trade surplus will affect the foreign exchange market supply and demand; when the surplus shrinks, the demand for the RMB may be reduced, and the RMB exchange rate is under pressure to depreciate; on the contrary, if inflation prompts the U.S. to increase imports of Chinese goods, trade surplus expansion, the RMB may appreciate [8].

3.3. Specific cases of impact

Inflation in the U.S. has led to instability in its domestic economy, and Chinese export enterprises are facing problems such as reduced orders. Promote the introduction of appropriate industrial policies in China to encourage enterprises to carry out technological innovation and industrial upgrading and improve product competitiveness to cope with changes in the external market; may also increase the support for domestic demand industries and promote the economy from an over-reliance on exports to the coordinated pull of consumption, investment, and exports. During the U.S. inflationary period, international soybean prices rose sharply due to rising U.S. agricultural production costs and fluctuations in the U.S. dollar exchange rate, among other factors. China is the world's largest importer of soybeans, which are mainly used in feed processing and other industries. The rise in soybean prices has led to a sharp increase in costs for Chinese feed companies, which in turn has led to higher costs for meat and other farmed products. For example, domestic hog farming enterprises, due to the significant increase in feed costs, have had their profit margins seriously compressed, and some small farmers even face losses. This not only affects the development of the aquaculture industry but also has a chain reaction on the consumer food prices of the population, to a certain extent, to promote the rise in domestic prices. To cope with the United States inflation triggered by rising soybean prices brought about by a series of problems, China actively expanded soybean import channels, broadened the source of imports to mitigate the chain of influence brought about by rising soybean prices, and increased the domestic soybean planting policy support and subsidies to encourage farmers to expand the soybean acreage to enhance the self-sufficiency rate of domestic soybeans. This also promotes industrial upgrading to a certain extent, guiding feed enterprises to technological innovation and industrial upgrading and research and development of new feed formulas to reduce the degree of dependence on soybeans.

4. China’s Policy Adjustment Directions Under U.S. Inflation

4.1. Monetary Policy

The spillover effects of U.S. inflation-driven monetary policy pose significant challenges to China’s exchange rate stability. To address capital outflows and RMB depreciation pressures during the U.S. interest rate hike cycle, the People’s Bank of China (PBOC) has employed a "counter-

cyclical adjustment toolkit" for multidimensional interventions. Specific measures include dynamically adjusting foreign exchange reserves to stabilize exchange rate fluctuations, flexibly using open market operations to regulate liquidity, and implementing macroprudential policies such as raising foreign exchange deposit reserve ratios to curb imported inflation transmission [9]. Moving forward, China must deepen exchange rate marketization reforms, promote the internationalization of the RMB Cross-Border Payment System (CIPS), and gradually reduce reliance on USD settlement channels to enhance monetary policy autonomy and resilience against external shocks.

4.2. Fiscal Policy

Amid external demand contraction caused by U.S. inflation, China's fiscal policy focuses on structural adjustments, prioritizing "new infrastructure, new urbanization initiatives, and major projects" to expand effective investment. By expanding special bond issuance and combining tax incentives, the policy supports high-value-added sectors such as next-generation infrastructure, smart urbanization, and critical national projects, stimulating domestic demand while advancing industrial upgrading. In social welfare, increased investment in affordable housing, healthcare, and education addresses inequality-driven consumption constraints. For industrial transformation, targeted support for strategic industries—through R&D subsidies and tax reductions—accelerates technological innovation, fueling long-term economic transition. This policy mix not only mitigates external demand risks but also accelerates industrial chain upgrading through technology spillover effects.

4.3. Trade Policy

Escalating U.S. inflation and trade protectionism have compelled China to optimize trade structures and deepen regional cooperation. Policymakers are expanding zero-tariff coverage under the Belt and Road Initiative (BRI) and Regional Comprehensive Economic Partnership (RCEP) frameworks to reduce trade costs. Cross-border logistics infrastructure collaborations shorten supply chain lead times, enhancing regional economic integration. Concurrently, China is building a "dual-circulation" value chain, promoting regionalized layouts for critical industries, such as cross-border integration in the new energy vehicle (NEV) supply chain. Digital trade rulemaking has emerged as a new lever, driving upgrades to service and digital trade models while reducing reliance on single markets [10].

4.4. Price Regulation and Supply Chain Security

Global commodity price volatility has exposed vulnerabilities in China's supply chains, prompting policies to strengthen autonomy in critical sectors. The "chain leader" system addresses bottlenecks in semiconductors and key raw materials, accelerating domestic substitution of core technologies [11]. Price regulation mechanisms, using a "benchmark price + floating price" model, stabilize commodity market expectations and curb imported inflation. Supply chain digitization, integrated into policy frameworks, leverages industrial internet platforms to optimize demand forecasting and inventory management, enhancing systemic resilience. Future efforts must deepen industry-university-research collaboration to accelerate technological breakthroughs and industrial ecosystem development, addressing long-term challenges of global supply chain restructuring.

5. Conclusion

This study systematically analyzes the transmission mechanisms and countermeasures of U.S. inflationary impacts on China's economic policies from 2019 to 2024. The findings reveal that U.S. inflation exerts multidimensional shocks on China's economy through trade contraction, exchange rate volatility, and capital flow imbalances, manifesting as reduced export volumes, intensified imported cost pressures, and heightened industrial chain security risks. China's "structural policy toolkit"—combining flexible monetary policies for exchange rate stability, fiscal expansion for domestic demand and upgrading, trade diversification, and supply chain resilience—demonstrates

synergistic effects in mitigating short-term risks while enhancing long-term competitiveness. The research establishes a novel "policy resilience" paradigm for emerging economies confronting external shocks. Theoretically, the "trade-exchange rate-capital flow" model fills gaps in studies on emerging economies' policy responses. Practically, it provides Chinese solutions for international policy coordination and global value chain restructuring.

This study has limitations in analyzing the dynamic complexity of emerging economies' policy responses, particularly the micro-level mechanisms of cross-border policy interactions. Additionally, empirical models exhibit limited predictive capacity for long-term policy effects, and shorter data spans may weaken conclusion robustness. Future research could expand to cross-country comparative case studies to refine theoretical frameworks for policy synergy.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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