Economics Bulletin

Volume 46, Issue 3

Does stablecoin growth cause inflation?

Antonio Ribba
Dipartimento di Economia, Università degli Studi di Modena e Reggio Emilia. Italy

Abstract

We aim to examine the role played by the sharp rise of stablecoins in the recent evolution of inflation and other selected financial and macroeconomic variables in the USA economy. We use the structural VAR methodology and find that a positive shock to stablecoins causes a statistically significant increase in inflation and a decrease in yields on three-month Treasury bill. We also detect an expansionary effect on industrial production. In light of the further strong growth expected for stablecoins in the coming years, these findings clearly have some important implications for macroeconomic stability and the conduct of monetary policy.

Editor`s Note: This paper was originally submitted under a different manuscript number on 02/25/2026 and accepted for publication on 7/7/2026. A system error required us to replace the original submission with a new manuscript with a later manuscript number.
Citation: Antonio Ribba, (2026) "Does stablecoin growth cause inflation?", *Economics Bulletin*, Volume 46, Issue 3, pages 1284-1288
Contact: Antonio Ribba - antonio.ribba@unimore.it.
Submitted: October 11, 2026. **Published:** September 30, 2026.

1. Introduction

Stablecoins are digital money issued by the private sector and are therefore potential competitors to fiat money issued by the central bank. Although some may legitimately question the use of the term "money" in the case of stablecoins, nevertheless some models of stablecoins, such as those pegged to the dollar, actually exhibit characteristics similar to those traditionally attributed to legal tender, in particular a medium of exchange, a measure of value and a store of value.

In fact, the spread of stablecoins seems to be in line with Hayek's view that the government monopoly on money issuance is merely a remnant of the medieval role of the state. According to Hayek, money should instead be freely regulated by market mechanisms (Hayek, 1978).

Over the period 2020-2025 stablecoin circulation increased tenfold, and this pace is expected to continue over the next five years (for an overview of stablecoins see Dionysopoulos and Urquhart 2024).

This remarkable current and expected diffusion raises an important macroeconomic question, among others: can an increase in stablecoin circulation stimulate inflation and, moreover, exert a significant effect on other relevant financial and macroeconomic variables?

In this paper, using a structural VAR model, we attempt to provide an initial answer to this question for the US economy, by investigating the dynamic effects of shocks to stablecoin on inflation, industrial production and the three-month yields on Treasury bill (T-bill).

In relation to the increasing role of stablecoins in the financial system, a recent strand of the literature has explored the financial stability implications of the growing role of stablecoins (see e.g. Chen and Phelan 2025).

In related research, Aldasoro et al. (2025) have recently investigated the effects of crypto shocks and monetary policy shocks on stablecoins[1]. Cova et al. (2025) investigate the transmission of monetary policy in the context of open economies with digital currency circulation. Instead, Borio et al. (2026) in a very recent article discuss the role of stablecoins in the broader process of creation of money.

The increasing interdependence between the Treasury market and the USD stablecoins, i.e. stablecoins designed to maintain a 1:1 value with the U.S. dollar, is studied in Yadav and Malone (2026)[2].

Hoang and Baur (2024) found that although stablecoins are less volatile than Bitcoin, nevertheless they exhibit much variability in comparison with major fiat currencies[3].

Therefore, and not surprisingly, there is a growing body of literature on the role of stablecoins in the economy, but a systematic analysis of the dynamic effects of stablecoins on inflation is still lacking. Our research fits well into this field of study.

[1] Aldasoro et al. also study the dynamic interaction among stablecoins, money market funds and monetary policy. A comparison between stablecoins and money market funds is presented in Ofele et al. (2024). The similarities between stablecoins and money market funds are empirically explored in Anadu et al, (2024).

[2] The authors highlight the positive effects of this interconnection, for example on the sustainability of public debt, but also the risks to macroeconomic stability: the risk of insolvency of stablecoin issuers could pose serious problems for the US Treasury market.

[3] According to research conducted by Riaza and Gnabo (2025), the depegging of stablecoins could play a destabilizing role in cryptocurrency markets.

2. Identifying stablecoins shocks

We first estimate a VAR model, over the period 2020-2025, including inflation rate, industrial production, total stablecoin market capitalization, an indicator of money supply, three-month yields on T-bill.

The reduced-form, VAR model is given by:

$$X_t = \mu + A(L)X_{t-1} + e_t \quad [1]$$

For a VAR of order p, $A(L) = \sum_{i=1}^{p} A_i L^{i-1}$. L is the lag operator, such that: $L^i X_t = X_{t-i}$. X_t is a 5×1 vector of macroeconomic variables, μ is a vector of constant terms and e_t is the 5×1 vector of error terms, such that $E(e_t) = 0$ and $E(e_t e_t') = \Sigma_e$.

We use a sample data at monthly frequencies. The inflation rate is built as the year-on-year rate of change of the Consumer Price Index, based upon the Personal Consumption Expenditure (PCE) index. Also the industrial production, M1 monetary aggregate and stablecoins enter the VAR as the year-on-year rate of change. Furthermore, the estimated VAR includes the three-month yields on Treasury.

The source of historical data for Total Stablecoin Market Capitalization, is CoinGlass (https://www.coinglass.com). Instead, the other series used in this study are taken from FRED at the St. Louis FED Web site.

The selection of the number of lags for the estimated VAR is based on Schwartz's criterion. It indicates one lag as the optimal choice and, in fact, this allows for a parsimonious parameterization, which is appropriate in the context of the relatively short sampling period considered in this investigation.

The reduced-form moving average representation of system [1] is given by:

$$X_t = \rho + C(L)e_t \quad [2]$$

where $C(0) = I$.

The structural VAR model has the following representation:

$$X_t = \rho + B(L)\eta_t \quad [3]$$

Where $B(L) = C(L)P$ and $\eta_t = P^{-1}e_t$. The 5×1 vector η_t contains orthonormal disturbances, i.e. $E(\eta_t \eta_t') = I$ and P is such that $PP' = \Sigma_e$. Given the symmetry of the covariance matrix of error terms, Σ_e, $(n^2 + n)/2$ restrictions, for a total of fifteen, are imposed on the twenty-five elements of P. Therefore, ten more restrictions are needed to exactly identify the VAR model. In order to achieve exact identification P is selected as the Cholesky factor and is the unique lower triangular matrix such that PP' gives a factorization of the covariance matrix of error terms.

Therefore, the stablecoins shock is recovered by imposing a recursive structure, in the following order: inflation, industrial production, total stablecoin market capitalization, M1, three-month yields on T-bill.

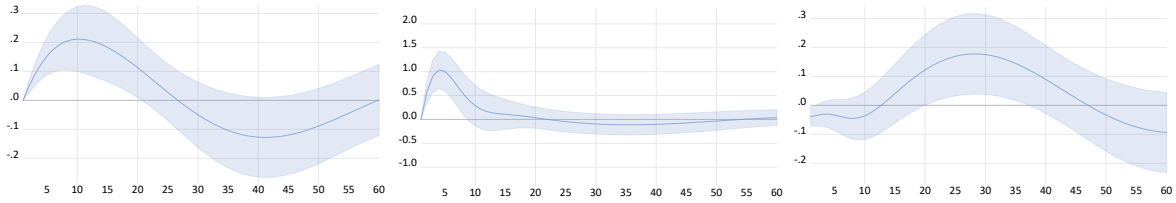
It is worth noting that, by adopting this recursive structure, we impose that the third shock (i.e., the stablecoin shock) has zero effects in the contemporaneous period on both inflation and industrial production. The same restrictions are imposed on changes in monetary growth. This set of restrictions is consistent with the traditional assumption in VAR literature that inflation reacts with lags to changes in the monetary sector. A classic reference on this subject is Christiano and Eichenbaum (1990).

In figure 1 the dynamic responses of inflation, industrial production and T-bill are reported. The inflation rate increases in response to a positive shock to stablecoins and this effect is statistically significant for around two years. In the case of industrial production, there is an increase in response to shock which lasts for around one year. Instead, as far as the yields on T-bill are concerned, we detect a statistically significant negative response on impact.

Let us note that these results are very similar to those expected in consequence of an expansionary monetary policy stance. After all, one of the tools of monetary policy is precisely the purchase of Treasury securities in order to increase money supply and reduce short-term interest rates.

Indeed, if we look for example at the composition of Tether's reserves[4], which include its own liabilities, we can infer that the ability of stablecoin issuers to create money is now underway (on this point, see also Borio et al. 2026).

Figure 1. Dynamic responses of inflation, industrial production and yields on T-bill to a positive stablecoin shock. Cholesky orthogonalization - 90 percent confidence bands.



(a) Inflation (b) Industrial production (c) Yields on T-bill

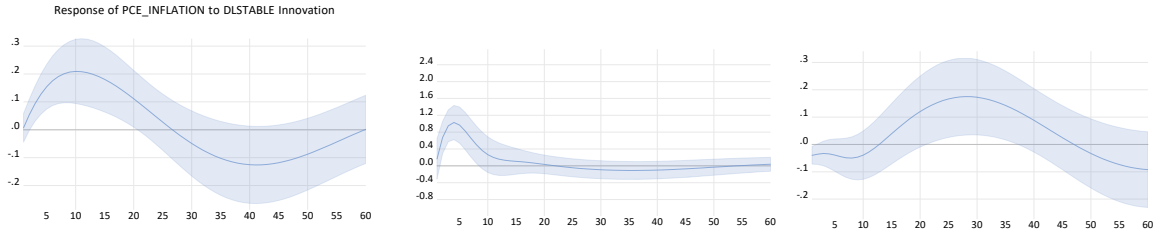
[4]Tether is the largest issuers of stablecoins. At December 2025 it accounted for around 70 percent of the total circulation.

3. An alternative identification strategy based on generalized impulse response analysis

Since we imposed a recursive structure on the estimated VAR, the results obtained might be sensitive to the particular causal ordering selected. Therefore, in this section, in order to explore the robustness of the results obtained in the previous section, we adopt an alternative identification strategy, based on generalized impulse response analysis (see Pesaran and Shin 1998, for details) in which the orthogonal set of innovations is independent of VAR orderings.

Figure 2 shows that the responses of variables to a positive shock to stablecoins are quite similar to those shown in the previous section. In particular, are confirmed the expansionary effects exerted on industrial production and the boost on inflation. Moreover, under the identification approach of this section, the response of yields on T-bill continues to be of negative signs on impact.

Figure 2. Dynamic responses of inflation, industrial production and yields on T-bill to a positive stablecoin shock. Generalized impulse responses - 90 percent confidence bands.



(a) Inflation (b) Industrial production (c) Yields on T-bill

4. Conclusion

The circulation of stablecoins can be seen as an endogenous process of money creation by the private sector. Clearly, this poses a challenge to central banks and their ability to control the money supply.

Indeed, in this paper, we have found that the growing role of stablecoins in the financial system has important macroeconomic consequences. In particular, our results for the US economy in the period 2020–2025, i.e. a period of strong growth in stablecoins circulation, indicate that this increase in circulation has caused a significant rise in inflation and industrial production and a decrease in Treasury yields.

This leads to some important implications for the conduct of monetary policy: stablecoins may interfere with the central bank's macroeconomic stability objective of low inflation and full employment and, moreover, the effectiveness of monetary policy transmission to the economy may be impaired. Nevertheless, and in principle, despite this potential interference,

if the central bank sets the interest rate following a Taylor Rule, the risk of loosing control of inflation can be mitigated. Yet, in the event of an inflation rate higher than the target set by the Federal Reserve, with an incremental effect on inflation caused by the growth in the supply of stablecoins, an higher degree of monetary restriction will probably be necessary.

Of course, since studies on the relationship between the stablecoin ecosystem and monetary policy are still in their infancy, further empirical evidence and theoretical research are needed to corroborate the findings presented in this paper.

References

Aldasoro I Cornelli G Ferrari Minesso M Gambacorta L M. Habib (2025) "Stablecoins, money market funds and monetary policy" *Economics Letters* 247, 112203.

Anadu K Azar PD Cipriani M Eisenbach TM Huang C Landoni M La Spada G Macchiavelli M Malfroy-Camine A J.C. Wang (2024) "Runs and flights to safety: are stablecoins the new money market funds?" Federal Reserve Bank of Boston Research Department Working Papers No. 23-11.

Borio C Disyatat P N. Tarashev (2026) "Stablecoins and the exorbitant privilege of money creation" CEPR Column, February 1.

Chen W and G. Phelan (2025) "Digital currency and banking-sector stability" *Journal of Financial Stability* 78, 101414.

Christiano LJ Eichenbaum M C.L. Evans (1999) "Monetary policy shocks: What Have We Learned and to What End?" in J.B. Taylor and M.Woodford, Eds., Handbook of Macroeconomics, North Holland, Amsterdam, pp. 65-148.

Cova P Notarpietro A Pagano P M. Pisani (2025) "Monetary policy in the open economies with digital currencies" *International Finance*, https://doi.org/10.1111/infi.70010.

Dionysopoulos L and A. Urquhart (2024) "10 years of stablecoins: Their impact, what we know, and future research directions" *Economics Letters* 244, 111939.

Hayek F.A. (1978) *Denationalisation of Money - the Argument Refined* Extended Edition, IEA.

Hoang LT and D.G. Baur (2024) "How stable are stablecoins?" *European Journal of Finance* 30, Issue 16, 1984-2000.

Oefele N Baur DG L.A. Smales (2024) "Are stablecoins the money market mutual funds of the future?" *Journal of Empirical Finance* 79, 101557.

Pesaran H and Y. Shin (1998) "Generalized impulse response analysis in linear multivariate models" *Economics Letters* vol. 58, issue 1, 17-29.

Riaza BP and J. Gnabo (2025) "From depegs to jumps: The role of stablecoin instabilities in crypto market dynamics" *Journal of International Money and Finance* 155, 103339.

Yadav Y and B. Malone (2026) "Stablecoins and US Treasury market" *Journal of International Economic Law*, jgaf050.