

Kamin, Steven

Working Paper

Dollar movements and dollar dominance in the aftermath of Liberation Day

AEI Economics Working Paper Series, No. 2025-06

Provided in Cooperation with:

American Enterprise Institute (AEI), Washington, DC

Suggested Citation: Kamin, Steven (2025) : Dollar movements and dollar dominance in the aftermath of Liberation Day, AEI Economics Working Paper Series, No. 2025-06, American Enterprise Institute (AEI), Washington, DC

This Version is available at:

<https://hdl.handle.net/10419/324820>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Dollar Movements and Dollar Dominance in the Aftermath of Liberation Day

Steven B. Kamin
American Enterprise Institute

AEI Economics Working Paper 2025-06
June 2025

Dollar Movements and Dollar Dominance in the Aftermath of Liberation Day¹

Steven B. Kamin

June 18, 2025

Abstract

This paper provides econometric evidence in support of the view that since President Trump's chaotic tariff announcements on Liberation Day, April 2, the dollar has switched from being a safe-haven currency that appreciates in times of market volatility to a "risk-on" currency that moves inversely with volatility. We estimate an equation for daily changes in the DXY dollar index, using as explanatory variables daily changes in US-foreign interest rate differentials and the VIX, a measure of market volatility. We find a significant break in the relationship between the dollar and its primary determinants after Liberation Day, with the dollar falling below its predicted level. More importantly, the sensitivity of the dollar to the VIX has shifted from positive to negative, suggesting that global investors have ceased to treat the dollar as a safe haven in times of stress. Whether this shift in the dollar's behaviour is temporary or permanent, and whether it will start to degrade the dollar's broader dominance in the global financial system, remains to be seen.

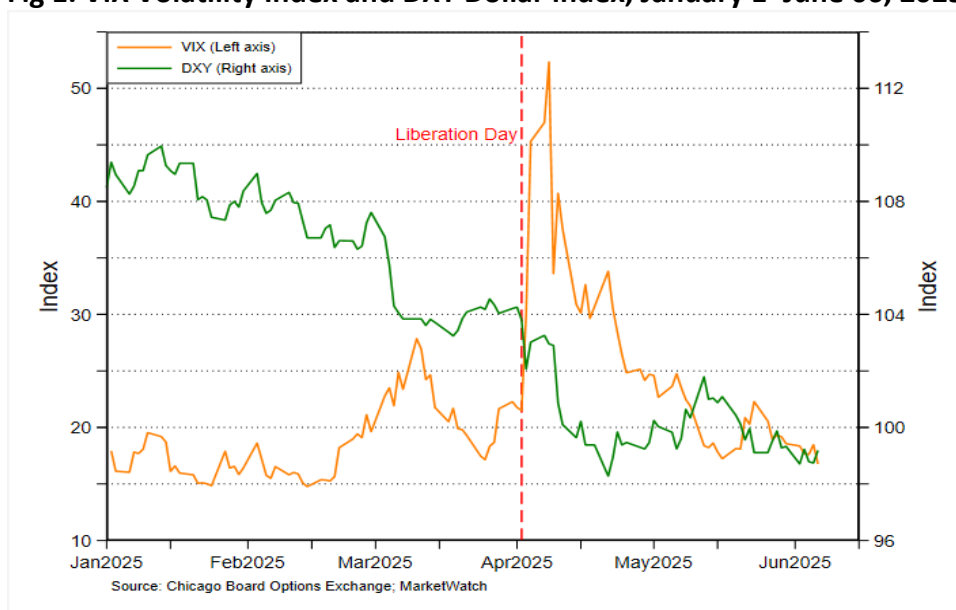
I. Introduction

President Trump's announcement of huge hikes in tariffs on April 2, which he labelled "Liberation Day," triggered severe financial turmoil. Especially jarring for financial market participants and onlookers was the fact, shown below, that the dollar declined sharply even as the VIX index, a measure of financial volatility, soared upward. In large part reflecting the safety and liquidity of U.S. Treasury securities, the dollar is a "flight-to-safety" currency, and generally rises during times of crisis. When the dollar fell instead of rising alongside the VIX after Liberation Day, this sparked widespread speculation that global investors, recoiling at the

¹ I thank Emre Yoldas for very helpful comments. Aatman Vakil and Jordan Law provided superb research assistance.

capricious and ill-considered policies of the Trump Administration, were abandoning the dollar and signalling the end of the currency's global dominance.

Fig 1. VIX Volatility Index and DXY Dollar Index, January 1–June 06, 2025



But does Liberation Day mark a turning point in the global stature of the dollar, or is the failure of the dollar to act as a flight-to-safety currency more of a temporary aberration, barring future assaults by the Administration on the stability of the global trade and financial system? To address this issue, we estimate an econometric model of daily dollar movements over the period January 2021 through June 6, 2025. We start with an equation for the *level* of the DXY dollar index, a measure of the foreign exchange value of the dollar against a weighted average of major advanced-economy currencies. We include as explanatory variables the VIX index and the interest rate differential between the US and foreign economies. We then estimate an equation for daily *changes* in the DXY dollar index, using as explanatory variables daily changes in interest rate differentials and the VIX, as well as the one-day-lagged level of residuals from

the levels regression described above. Thus, we essentially estimate a simple error-correction model for the dollar.

We find, first, that the estimation results conform closely to our theoretical expectations. Increases in US-foreign interest rate differentials lead to increases in the dollar, as does the VIX, confirming the behaviour of the dollar as a flight-to-safety currency. Second, on several days following Liberation Day, the dollar fell by a greater extent relative to the model's predictions than in the entire 2021-2025 sample period. This supports the perception that a break in the relationship between the dollar and its primary determinants occurred after April 2. Third and finally, we hone in on the estimated sensitivity of the dollar to the VIX: We find that this sensitivity, while generally positive over the course of the sample period, dropped to an historically outsized negative level in the months after Liberation Day. This suggests that the safe-haven behaviour of the dollar evaporated after the beginning of April, with the dollar switching from a "risk off" to a "risk on" currency.

It is too soon to conclude that a lasting break in the dollar's flight-to-safety role has occurred. Markets have stabilized and stock prices have largely recovered from the chaos that immediately followed Trump's Liberation Day announcement. On the other hand, the imminent passage of tax cuts and budget-deficit expansion under the "Big Beautiful Bill" could further undermine investor confidence in the dollar. At a minimum, the events of the past few months should serve as a wake-up call for the need to pursue prudent and stable policies if the dollar's status in global markets is to be maintained.

A further consideration is that even if the safe-haven status of the dollar erodes, that does not signal the immediate demise of the dollar's dominant role in the world financial system. The dollar is hardwired into the global economy. Inertia, network effects (people

accept payments in dollars because everyone else accepts payments in dollars), and a vast financial and payments infrastructure ensure it will take many years for a challenger to dislodge the dollar's pre-eminence, if one can even be found (Kamin and Sobel, 2024).

The plan of this paper is as follows. Section II places the paper in the context of prior research on this topic. Sections III and IV describe estimation results for the “levels” and “changes” versions of the model, respectively, while Section V describes the results’ robustness to a longer sample period. Section VI concludes.

II. Relevant Literature

There is an extensive body of research modelling the dollar exchange rate. We will not review that here – see Obstfeld and Zhou (2022) and Engel and Wu (2023) for details. Both of these papers estimate models relating changes in the level of the dollar to US-foreign interest rate differentials, measures of covered interest parity (CIP) deviations, measures of financial market volatility, and the lagged real exchange rate.² We follow this approach below, although to streamline the model, we exclude CIP deviations (see footnote below) and replace the lagged real exchange rate with residuals from a levels model of nominal exchange rate.

The use of the sensitivity of the dollar to market volatility as a measure of the dollar's safe-haven status is also well-recognized in the literature. Fatum and Yamamoto (2016) note: “We define a safe haven currency as a currency that increases its relative value against other currencies as market uncertainty increases.” This view is echoed by other analysts, including

² Deviations from covered interest parity are believed to reflect, in part, the special convenience or liquidity services offered by US assets. As described by Du, Tepper, and Verdelhan (2018), among others, these deviations reflect, among other things, changes in the demand for US Treasuries caused by changes in market volatility. We do not include them in the analysis in order to provide a cleaner and more complete read on the response of the dollar to market volatility as reflected in the VIX.

Ranaldo and Söderlind (2010), Habib and Stracca (2012), De Bock and de Carvalho Filho (2015), and Park and Fang (2025). These researchers generally find the US dollar to be a safe-haven currency, and sometimes also the Japanese yen and Swiss franc. They also frequently use the VIX as the measure of market uncertainty and volatility, and we follow that approach in our modelling.

As noted in the introduction, since Liberation Day, there has been considerable discussion in the financial media about how the apparent switch in the dollar from a “risk off” to “risk on” currency. Besides more anecdotal treatments of this issue, however, there have been only a couple of more analytical pieces. Hartley and Rebucci (2025) dispute that the fall in the dollar after Liberation Day owed to a weakening of its safe-haven status, arguing instead that worries about equity earnings prompted the retreat from dollar assets. Collyns and Klein (2025), however, estimate a simple model of the dollar as a function of US interest rates and a policy uncertainty variable; they find that policy uncertainty generally boosted the dollar except in two periods, January-May 2017 and December 2024-April 2025, consistent with a recent decline in the safe-haven status of the dollar. Our research follows along similar lines, but using a more fully developed model (eg, estimating in daily changes, using interest rate differentials) and focusing on market volatility, the most important dimension of safe-haven status.

III. A “levels” model of the dollar

Column (1) in the table below presents results of estimating a regression of the log-level of the DXY index of the dollar (multiplied by a hundred), a measure of its value against the currencies of other major advanced economies, on (1) the difference between US and a weighted average (using the same weights as the DXY index) of foreign 2-year Treasury yields, (2) the difference between the slope of the US yield curve (10-year minus 2-year) and the

weighted average of foreign yield curve slopes, and (3) the VIX.³ The model fits well, and the coefficients on the interest rate differentials are significant and correctly signed.

Table 1: Regressions of the DXY Dollar on its Main Determinants

VARIABLES	(1)	(2)
	Log DXY Index x100	Log DXY Index x100 (daily changes)
	OLS	OLS
	2021-01-01 to 2025-06-06	2021-01-01 to 2025-06-06
2yr Yield Differential (level)	6.48*** (0.22)	
Yield Slope Differential (level)	0.91*** (0.29)	
CBOE Volatility Index: VIX (level)	0.02 (0.01)	
2yr Yield Differential (changes)		3.63*** (0.34)
Yield Slope Differential (changes)		1.52*** (0.46)
CBOE Volatility Index: VIX (changes)		0.04*** (0.01)
Reg (1) residual, 1-day lag (level))		-0.03*** (0.01)
Constant	452.40*** (0.47)	0.01 (0.01)
Observations	1,029	1,028
R-squared	0.88	0.18

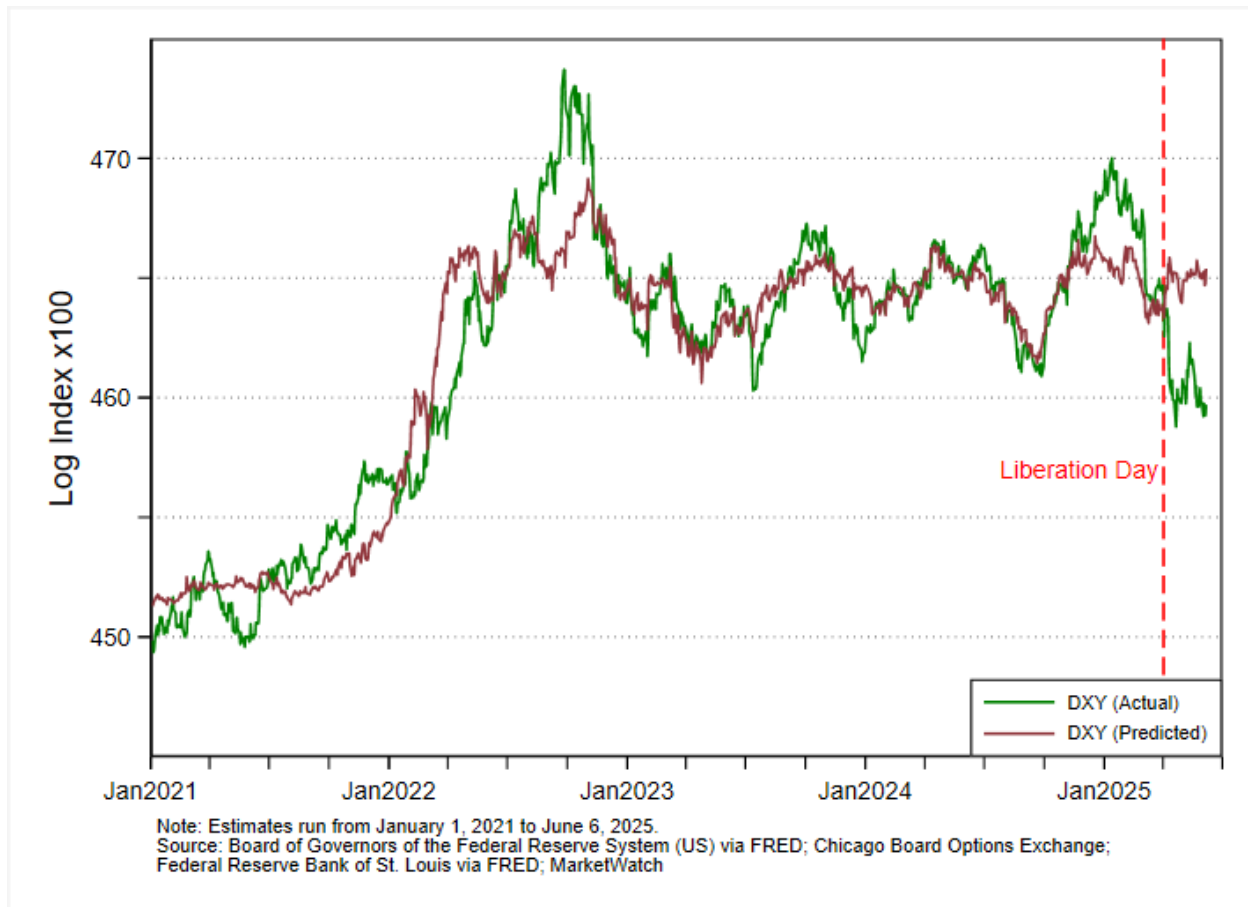
Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 2 below compares the in-sample predictions (fitted values) of the model with the actual path of the log-DXY index. The model tracks the DXY reasonably well, though it does not capture all the turning points. Notably, the dollar shoots up well above the model in the months after the November election, likely reflecting the “Trump trade” in anticipation of his deregulatory pro-growth policies, and then it falls well below the model starting in February, well before Liberation Day.

³ The DXY dollar index is a weighted average of nominal dollar exchange rates against the euro, yen, Pound sterling, Canadian dollar, Swiss franc, and Swedish Krona. It is drawn from MarketWatch. US and foreign yields are drawn from the Board of Governors of the Federal Reserve System (US) via FRED and MarketWatch respectively. The VIX index is drawn from the Chicago Board Options Exchange via FRED®

Figure 2: Actual and In-Sample Predicted Values of the DXY Dollar Based on Regression #1



The last downward jog in the actual dollar relative to predictions, even as the predicted value rebounded owing to higher Treasury yields and a surge in the VIX, was likely attributable to the investor dismay with Trump policies as noted in the introduction. More generally, however, movements in the foreign exchange value of the dollar should not be equated with

changes in the dollar's status among global investors. The dollar has exhibited wide swings in its value over the past decades, even as it has maintained its dominance as an international reserve asset and vehicle currency. The fall in the dollar relative to model predictions in the months before Liberation Day may have been driven by any number of factors that are not well-captured by the model and, at the same time, not necessarily related to the role of the dollar in global trade and finance: a correction of excessive valuations as the Trump trade lost appeal; concerns that tariffs would slow economic growth; or expectations that tariff hikes would reduce the trade deficit and thus lower the dollar.

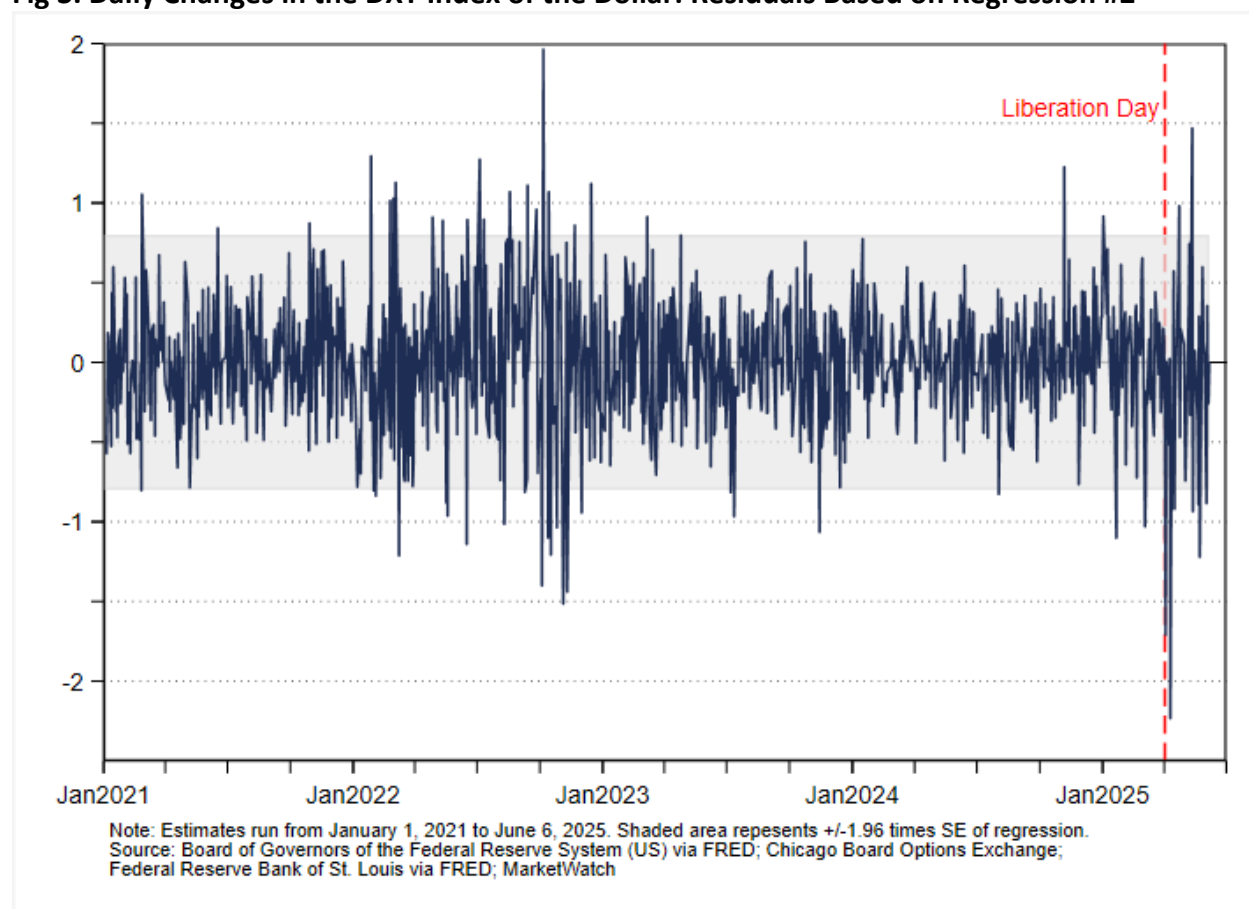
IV. A model of daily dollar dynamics

Moreover, the levels model shown in column (1) essentially captures the long-run relationship between the dollar and its determinants. It is ill-equipped to capture the dynamics of day-to-day movements in the dollar. To capture those dynamics, column (2) presents the estimations results of a regression of the daily *change* in the log of DXY on *changes* in the interest rate differentials, *changes* in the VIX, and, finally, the one-day-lagged level of the residuals from the levels model presented in column (1). The last term is an error-correction variable: when the actual dollar exceeds its prediction on the previous day (a positive residual), there is a tendency for it to decline back toward the model prediction, and when the dollar falls below its earlier prediction, there is a tendency for it to rise. So the coefficient on the lagged residual is expected to be negative.

As shown in column (2), the coefficients on all the explanatory variables are correctly signed and statistically significant. Figure 3 presents the residuals from the regression #2 model, that is, the difference between the actual daily movements in the dollar and those predicted by the model, with the 95% confidence interval for these residuals outlined by the

dashed horizontal lines. It shows that following “Liberation Day,” because the dollar declined while the VIX soared, changes in the dollar fell below their predicted values by the greatest margins in the entire sample period.

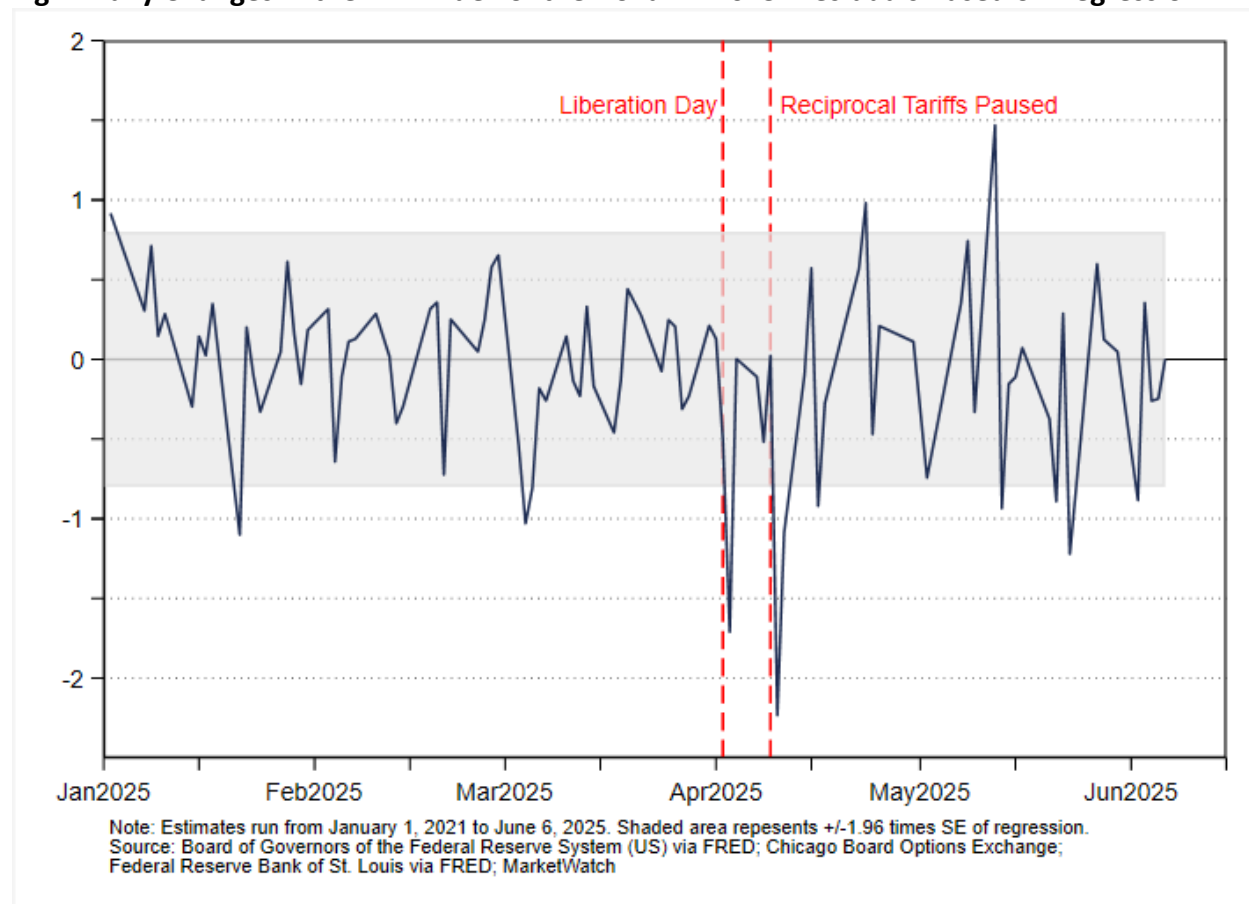
Fig 3. Daily Changes in the DXY Index of the Dollar: Residuals Based on Regression #2



The chart below hones in on just the past few months. The extreme residuals of the model are concentrated in just two days: April 3, after the tariffs were announced, and (ironically), April 10, following the retraction of most of the so-called “reciprocal tariffs”.

However, even after that, there seem to have been more frequent large negative residuals than in the pre-Liberation Day months.

Fig 4. Daily Changes in the DXY Index of the Dollar in 2025: Residuals Based on Regression #2



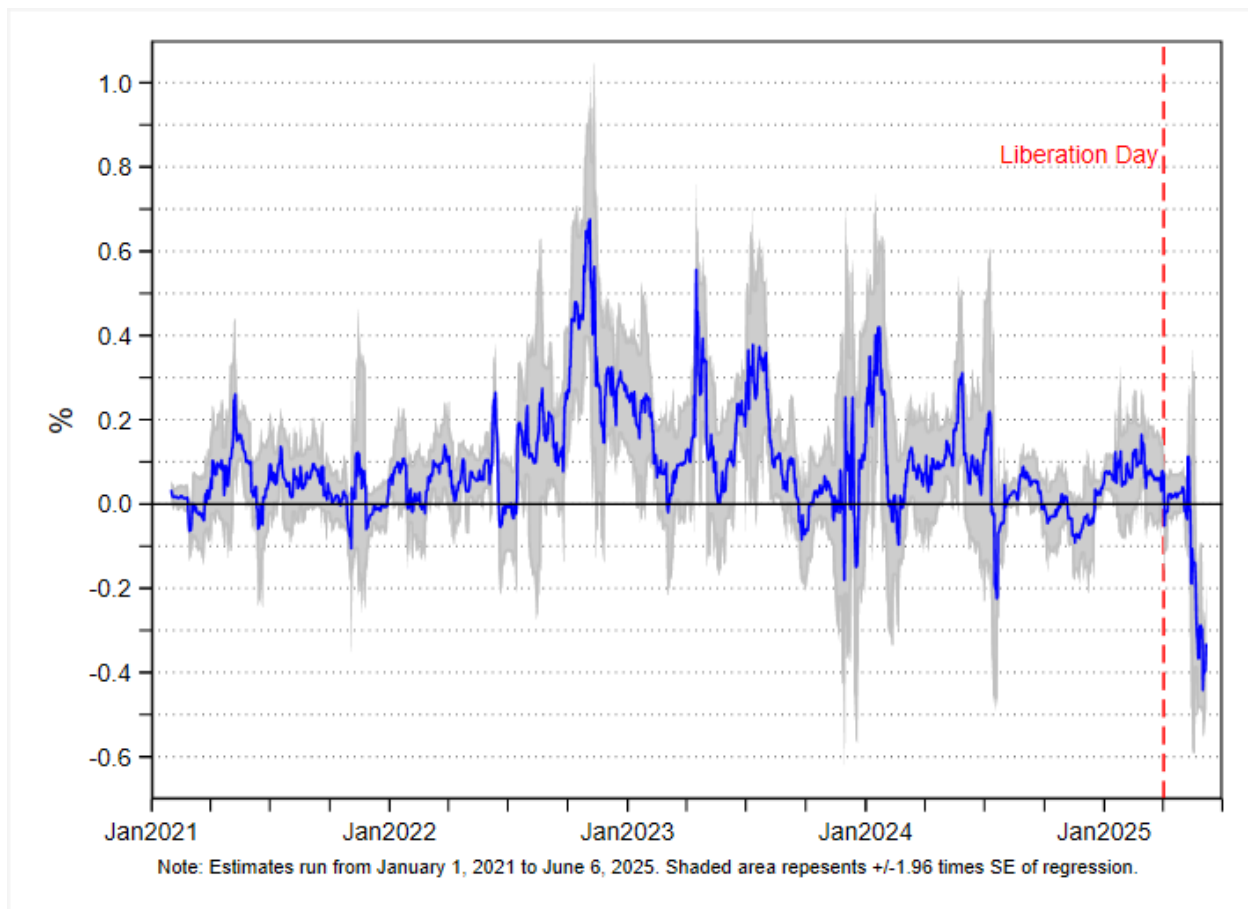
We applied the standard Chow test to assess whether a significant structural break occurred in regression #2 after Liberation Day. The Chow F-statistic was 9.52, indicating the presence of a structural break in the relationship at the 1 percent level of significance. This reinforces the message provided by the outsized residuals in Figures 3 and 4 above.

While we have confirmed a significant break in the relationship of the dollar to its primary determinants, we have not yet pinned that break on a change in the dollar's safe-haven behaviour. To address this issue, we focus specifically on the sensitivity of the dollar to changes

in the VIX, as measured by the coefficient on the changes in the VIX in regression #2. We estimate this sensitivity for 30-day moving (and overlapping) windows over the course of our four-year estimation sample. The grey shaded areas represent 95% confidence intervals around the estimated coefficients. As indicated in the chart below, this sensitivity shifted from positive to negative in the two months after Liberation Day and has reached its most negative level of the entire sample period.

In contrast, the estimated sensitivities of the dollar with respect to the two-year yield differential and the yield-curve differential, while fluctuating immediately after Liberation Day, end up little changed; these charts are shown in Appendix 1. Thus, it appears that the shift in investor behaviour since Liberation Day was focused on dollar assets in general rather than US Treasuries in particular.

Fig 5. Estimated Sensitivity of the Dollar to the VIX in Regression #2



V. Widening the Sample Period

The results described above are not an artefact of the sample period. Appendix 2 presents the estimation results for the model when the beginning of the sample period is moved back to January 2007. As indicated in column (1) of Appendix 2, Table1, the estimated coefficients from the levels regression are much larger than those shown above for the 2021-2025 sample period. As well, Appendix 2, Figure 1 shows much larger deviations of actual and in-sample predicted values of the dollar than were evident based on the more recent sample period.

However, the coefficients on interest rates and the VIX from the daily changes regression shown in column (2) are quite similar to those from the more recent sample period.

In consequence, as shown in Appendix 2, Figure 2, the negative residuals following Liberation Day continue to be outsized, exceeded only a couple of times earlier in the sample period. A Chow test confirms, at the 1% level of significance, that a structural break in the relationship occurred after Liberation Day. By the same token, the estimated sensitivity of the dollar to the VIX, shown in Appendix 2, Figure 3, also drops to become substantially negative, exceeded only by a drop in mid-2017.

VI. Conclusion

We have confirmed anecdotal reports that in the period since Liberation Day, the dollar switched from rising during periods of financial market volatility to falling – it thus switched from being a safe-haven currency to a “risk on” currency. That shift in investor attitudes toward the dollar was likely triggered by Trump’s chaotic tariff announcements and reinforced by the forthcoming passage of large tax cuts that will further grow the federal deficit and debt. It is still too soon to identify the events of the past few months as the beginning of the end of the dollar’s safe-haven status, or of dollar dominance more generally. However, these events do caution that investors will pull back from the dollar in response to capricious, disruptive, and counter-productive policies. And if maintained, such policies ultimately would do serious damage to the dollar’s role in global trade and financial markets.

References

- Collyns, Charles and Michael Klein. 2025. “Is the Dollar Losing Its Edge?” *Econofact*, June.
- De Bock, Reinout and de Carvalho Filho, Irineu. 2015. “The behavior of currencies during risk-off episodes,” *Journal of International Money and Finance*, Elsevier, vol. 53(C), pages 218-234.
- Du, Wenxin, Alexander Tepper, and Adrien Verdelhan. 2018. “Deviations from Covered Interest Rate Parity.” *Journal of Finance* 73, no. 3: 915–57.

Engel, Charles and Steve Pak Yeung Wu. 2023. "Liquidity and Exchange Rates: An Empirical Investigation," *The Review of Economic Studies*, vol 90(5), pages 2395-2438.

Fatum, Rasmus, and Yohei Yamamoto. 2016. "Intra-Safe Haven Currency Behavior during the Global Financial Crisis." *Journal of International Money and Finance* 66, 49-64.

Habib, M. M. and L. Stracca. 2012. 'Getting beyond carry trade: What makes a safe haven currency?', *Journal of International Economics* 87(1), 50–64.

Hartley, Jonathan and Alessandro Rebucci, 2025. "Tariffs, the dollar, and equities: High-frequency evidence from the Liberation Day announcement," *VOXEU*, April.

Kamin, Steven and Mark Sobel. 2024. "Dollar Dominance Is Here to Stay for the Foreseeable Future—the Real Issue for the Global Economy Is How and Why," *AEI Economic Policy Working Paper Series*, January.

Michelis, Leo, Cathy Ning and Jeremey Ponrajah. 2024. "Safe haven currencies: A dependence switching copula approach," *Working Papers* 091, Toronto Metropolitan University, Department of Economics.

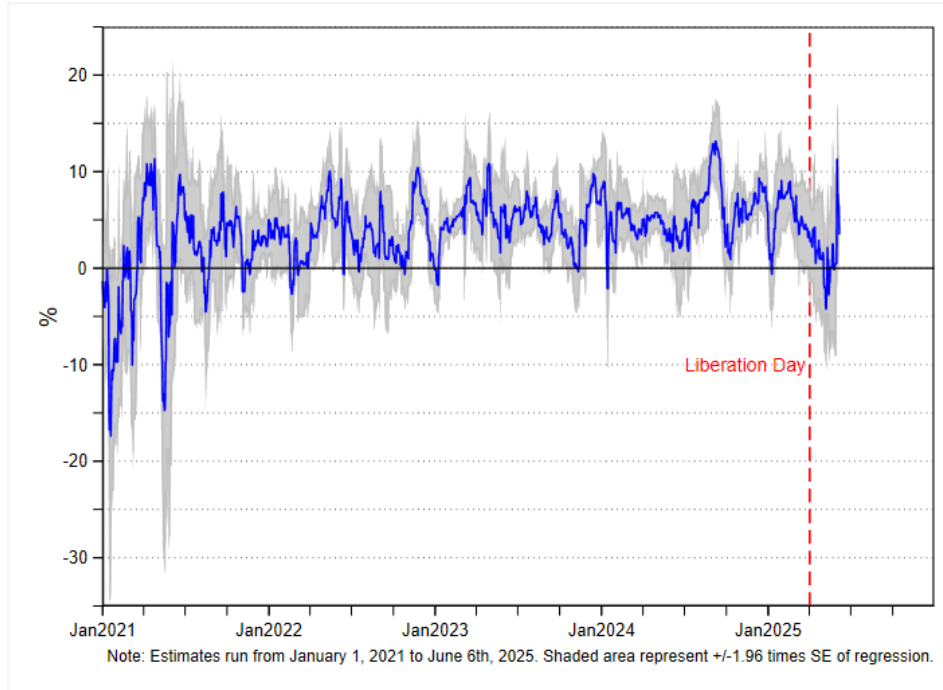
Obstfeld, Maurice, and Haonan Zhou. 2022. "The Global Dollar Cycle." *Brookings Papers on Economic Activity* 2022 (2): 361–447.

Park, Keehwan and Zhongzheng Fang, 2025. "Time-varying intra-safe haven currency behaviour: The U.S. dollar, the Swiss franc, and the Japanese yen," *The Quarterly Review of Economics and Finance*, Volume 100, March 2025.

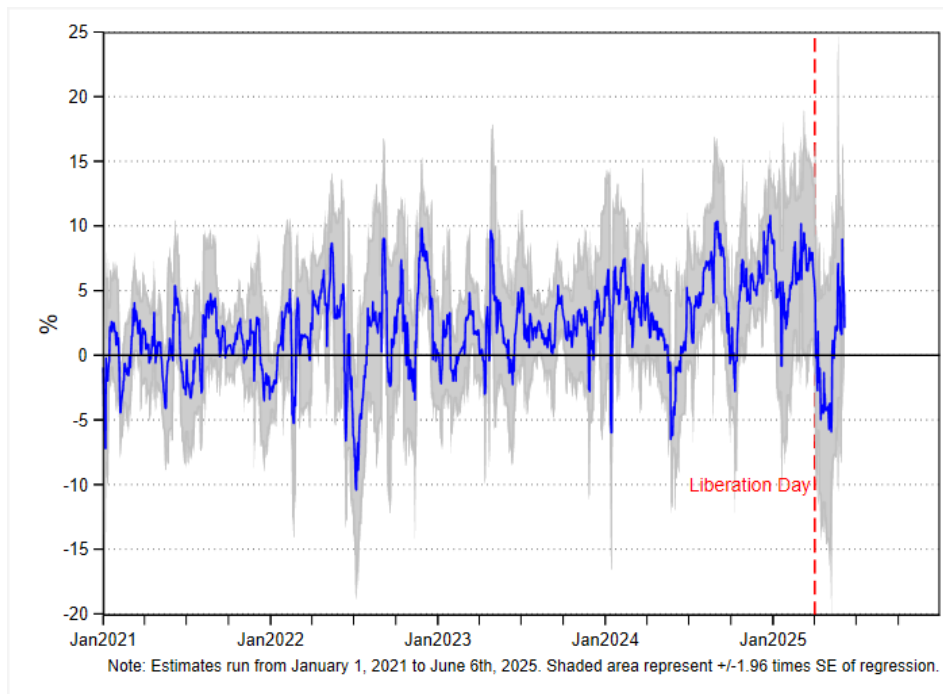
Ranaldo, Angelo and Paul Söderlind, 2010. "Safe Haven Currencies," *Review of Finance*, European Finance Association, vol. 14(3), pages 385-407.

Appendix 1: Estimated Sensitivities of the Dollar to Interest Rate Differentials, Based on 2021-2025 Sample Period

Estimated Sensitivity of the Dollar to Two-Year Yield Differentials



Estimated Sensitivity of the Dollar to Yield-Curve-Slope Differentials



Appendix 2: Estimation Results Based on 2007-2025 Sample Period

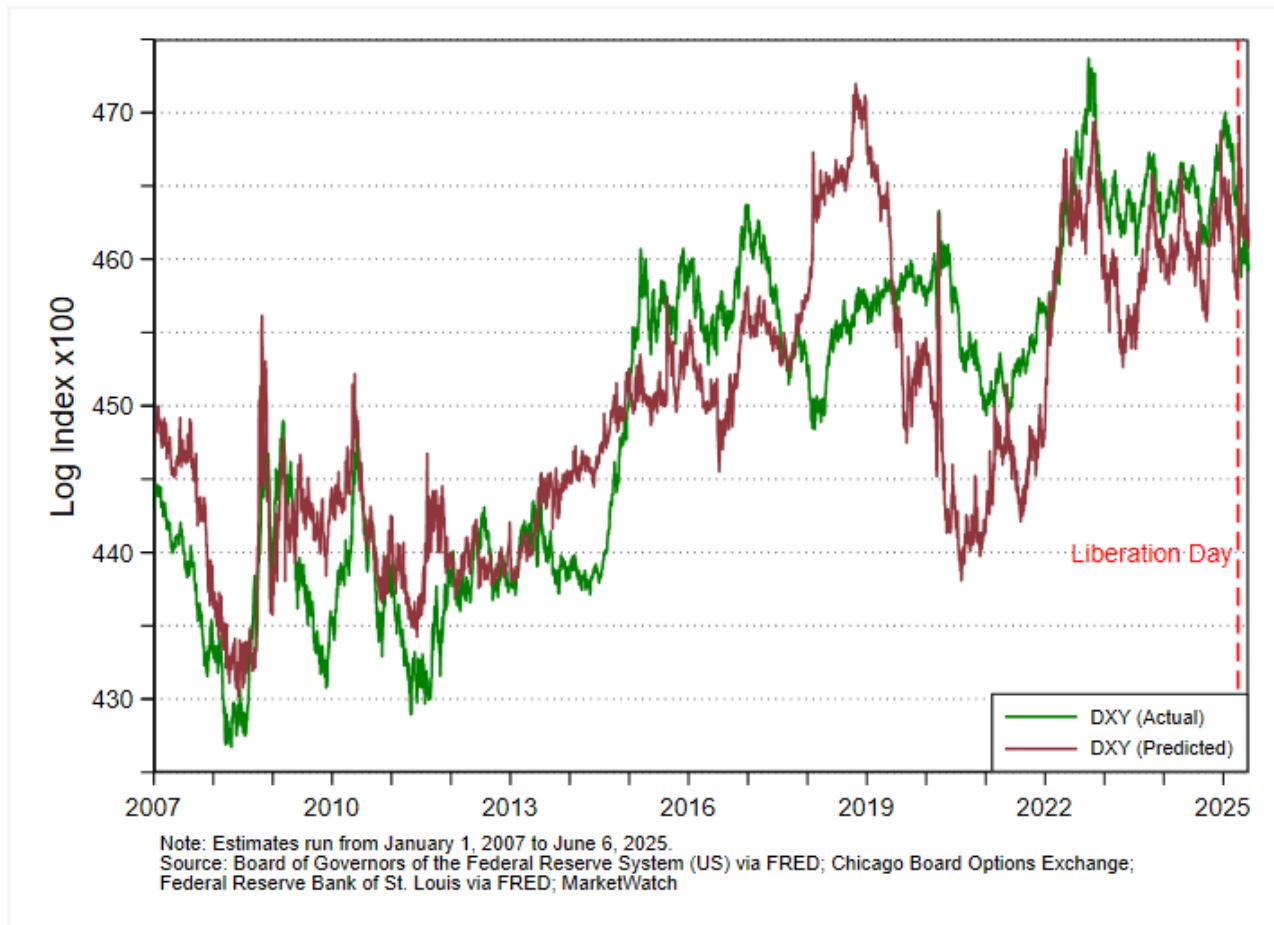
Appendix 2, Table 1: Regressions of the DXY Dollar on its Main Determinants

VARIABLES	(1) Log DXY Index x100 OLS 2007-01-01 to 2025-06-06	(2) Log DXY Index x100 (daily changes) OLS 2007-01-01 to 2025-06-06
CBOE Volatility Index: VIX	0.31*** (0.01)	
CBOE Volatility Index: VIX, daily change		0.04*** (0.01)
2yr Yield Differential	14.12*** (0.18)	
Yield Slope Differential	9.94*** (0.27)	
2yr Yield Differential, daily change		3.23*** (0.24)
Yield Slope Differential, daily change		1.09*** (0.29)
Reg 6 Residual, 1-Day Lag		-0.00*** (0.00)
Constant	430.89*** (0.39)	0.00 (0.01)
Observations	4,392	4,383
R-squared	0.68	0.09

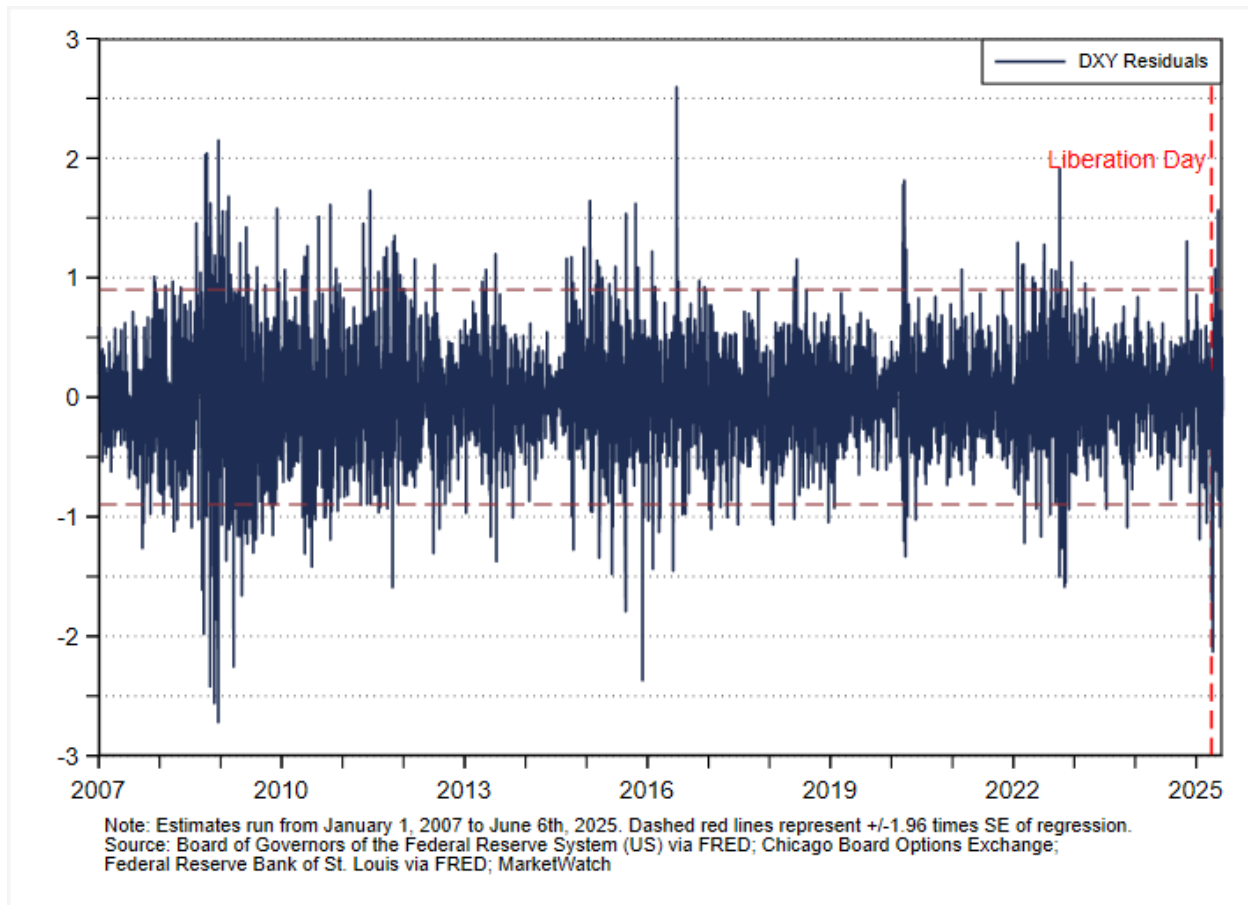
Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix 2, Figure 1: Actual and Predicted Values of the DXY Dollar Based on Levels Regression, Estimated from 2007-2025 Sample



Appendix 2, Figure 2: Daily Changes in the DXY Index of the Dollar: Residuals Based on Regression #2, Estimated From 2007-2025 Sample



Appendix 2, Figure 3: Estimated Sensitivity of the Dollar to the VIX in Regression #2

