
Political Transactions and Exchange Rate Asymmetries:
Evidence from the USD/EUR Market during U.S.
Presidential Regime Changes

Sommario

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Introduction

One of the central issues that has long preoccupied the field of international macroeconomics is whether political institutions, along with the resultant policy regime, play an independent and discernible role in shaping the movements of foreign exchange, separate from the economic variables identified by traditional exchange rate theory as the true drivers of price determination.

The answer, it seems, is a resounding yes. There exists a sizeable amount of evidence showing that there is a significant difference between the movement of the U.S. dollar depending on who controls the executive branch of government, a phenomenon that has proven so pervasive and consistent over many years that it has earned its own moniker in the literature of financial economics, the Presidential Puzzle. This phenomenon, whereby the leading international reserve currency is affected by a partisan bias despite controlling for factors such as interest rate differentials, inflation, and economic cycles, is no mere quirk of econometric analysis.

As for the theoretical basis of this thesis, the starting point lies in the seminal contribution made by Della Corte & Fu (2020) with regard to the examination of exchange rates' dynamics during more than thirty-eight years of observations, during which the dollar was found to appreciate on average by 4.31% annually in democratic regimes while depreciating 1.25% annually in republican regimes. What is crucial about this observation is that the authors are not interested in the partisan label per se, but rather in the trade policy conduct that is typical of the latter regime: high tariffs, high protectionism, and the uncertainty this causes when pricing assets that are traded across international borders. The fact that when including tariffs in panel regressions the effect loses its statistical significance is sufficient to establish that the trade policy uncertainty is the channel through which partisan politics affects the exchange rate.

However, despite the rigorous methodology, the current research base provides results at a rather low frequency level. The average values obtained in the course of Della Corte and Fu (2020)'s study cover the entire period of presidential tenure and therefore conceal the dynamics of expectation formation, policy announcement and adjustment on the part of the financial market, which takes place at a much shorter time interval. The present work aims to fill the gap between the available short-run observations by studying the behaviour of the exchange rate within the days and weeks following two specific periods of inauguration of the presidents of the United States, i.e., the transition from Barack Obama to Donald Trump in January 2017 and from Joe Biden to Donald Trump in January 2025. While the partisan change involved in both cases is identical and consists in switching from a Democrat to a Republican president, the macroeconomic conditions of these events differ significantly, since they have their own levels of inflation rates, monetary policy and expectations regarding the US currency.

In order to answer the above research question, a Nonlinear Autoregressive Distributed Lag (NARDL) approach by Shin et al. (2014) will be used in the thesis. It should be noted that the use of the chosen methodology is not accidental. The standard linear econometric model of cointegration assumes the symmetry of the exchange rates reaction to shocks from the explanatory variable: the same amplitude of the exchange rate response and opposite signs. As shown by numerous studies in the field of behavioral finance and economics, the validity of this assumption is unlikely due to factors such as: loss aversion, irreversibility of investment decisions, and asymmetry in information processing in the market. In turn, the NARDL framework breaks up the symmetry assumption by partitioning the explanatory variable (in this thesis it is the EPU index of Baker et al., 2016) into its positive and negative partial sums, allowing it to evaluate separate short- and long-term multipliers for each shock direction. USD/EUR bilateral exchange rate denominated in U.S. dollars per euro is considered a dependent variable in the analysis below.

Results are notable for their heterogeneity. First, with respect to the 2017 Obama-Trump transition, using the NARDL approach, there is no statistically significant association between Economic Policy Uncertainty and the USD/EUR exchange rate. The explanatory power of the model is below two percent, and neither a cointegrating relation nor the impact of positive/negative EPU shocks can be identified. In contrast, the 2025 Biden-Trump scenario reveals very different dynamics, with an adjusted R-squared equaling 0.268, a significant error correction coefficient, and a strong and economically relevant effect from both short-term and long-run impacts of EPU shocks. Furthermore, an asymmetry test shows with statistical significance that shocks increasing the level of economic policy uncertainty are more powerful and have a greater lasting impact than shocks reducing uncertainty. The findings provide clear evidence that the response of the dollar is asymmetric and is in line with the existing literature explaining market risk aversion and the effects of asymmetric information processing. Overall, results indicate that the political risk premium, in particular the partisan political risk premium, is not structural, but is rather contingent upon certain conditions being met.

The subsequent sections of this thesis unfold as follows. In Chapter 1, the study is placed in the context of literature dealing with the political economy of exchange rates; the Political Presidential Puzzle and its empirical basis are laid out, followed by an explanation of the Interest

Rate Parity benchmark against which political anomalies are measured, and finally the definitions of the two transitions, that between Obama and Trump in 2017 and that between Biden and Trump in 2025. Chapter 2 lays out the technical construction of the NARDL methodology with its seven-stage approach to estimation; the choice of the non-symmetric approach is explained vis-à-vis its symmetric rivals. Chapter 3 delivers the empirical findings, starting with the results from each of the periods individually, before proceeding with a comparison across both periods. This is done especially in reference to the in-period and cross-period asymmetry tests that form the crux of the thesis' argumentation.

Chapter 1

Theoretical Framework and Research Question

1.1 Literature Review: The Political Economy of Exchange Rates

Before examining the specific dynamics of the 2017 and 2025 presidential transitions, it is essential to place this research within the wider body of academic work on political cycles and currency markets. The key insight from this literature is straightforward: exchange rates do not just respond to economic data; they also respond to who oversees economic policy. For a normal person, that means a presidential election can change the value of the dollar in their pocket without a single interest rate moving. This section surveys the empirical evidence for that claim and explains the mechanism behind it.

1.1.1 The Presidential Puzzle

The term "Presidential Puzzle" describes a striking anomaly in financial markets: the U.S. dollar and U.S. equities have historically performed very differently depending on which party controls the White House, and standard economic models have no satisfying explanation for why. In the foreign exchange context, the data are remarkably consistent over more than four decades. The U.S. Dollar tends to appreciate by an average of 4.31% per year during Democratic presidential terms, while it depreciates by an average of 1.25% per year under Republican administrations. That is a gap of over 5% annually, large enough to matter for any investor or institution holding dollar-denominated assets.

What makes this a genuine puzzle, rather than a political talking point, is that it survives rigorous statistical testing. When researchers adjust for interest rate differentials between countries, control for inflation levels, and account for where the U.S. economy is in the business cycle, the pattern does not go away. The market appears to "price in" the partisan identity of the executive branch as a risk factor, one that operates independently of the economy's underlying fundamentals. The implication is significant: politics is not just background noise. It is a driver of currency values that is distinct from everything else economists normally look at.

In practical terms, this matters beyond the trading floor. If the party in power systematically affects the dollar's value, then a presidential election carries real consequences for importers, exporters, tourists, and anyone whose savings or debts are tied to international currency movements. The Presidential Puzzle is not an abstract academic curiosity, it is a documented pattern with tangible economic consequences.

1.1.2 Della Corte and Fu (2020): The Empirical Foundation

The most comprehensive academic study of this phenomenon is Della Corte and Fu (2020), whose paper "Presidential Cycles and Exchange Rates" serves as the empirical backbone of this thesis. Working with nearly four decades of exchange rate data, October 1983 to October 2020, the authors analyze 25 currencies across both developed and emerging markets and confirm the pattern described above. The dollar appreciates 4.31% per year on average under Democratic presidents and depreciates 1.25% per year under Republicans. For an equally-weighted basket of all 25 currencies, the total gap between the two regimes amounts to approximately 5.56% per annum.

The authors test three separate robustness checks. First, they strip out the interest rate advantage by using currency excess returns instead of raw exchange rate changes, the pattern holds for 22 out of 25 pairs. Second, they adjust for inflation differentials across countries, the effect remains. Third, they run panel regressions with fixed effects for each individual currency and find a statistically significant coefficient of approximately, 5.53 on the political party dummy, meaning the dollar's directional movement changes systematically with the party in power, not with any specific economic variable.

The authors also built a simple "dollar cycle" trading strategy, long the dollar under Democrats, short under Republicans, that returns an average of 2.6% per year. By comparison, the well-known dollar carry strategy returns just -0.4% over the same period. The near-zero correlation between the two strategies (around 1%) confirms that the presidential cycle is capturing something genuinely different from standard currency risk premia. This makes Della Corte and Fu not just a useful reference, but the quantitative baseline against which the specific 2017 and 2025 transitions examined in this thesis should be measured.

1.1.3 Trade Policy Uncertainty: Why It Happens

Knowing that the pattern exists is only half the story. Della Corte and Fu (2020) also identify the mechanism: Trade Policy Uncertainty. The logic is intuitive. Republican administrations have historically imposed higher tariffs and introduced more unpredictability around trade relations. When investors do not know what trade regime the United States will adopt, they treat that uncertainty as a form of risk, and they price it into the dollar. Political uncertainty makes investors nervous; nervous investors move capital cautiously, which depresses the currency of the country generating the uncertainty.

The authors test this directly using three different tariff measures, including the ratio of customs duties to total imports and the WTO Most Favored Nation tariff rate. In every specification, higher tariffs are associated with a weaker dollar. More importantly, once tariff levels are included in the regression, the Democrat-versus-Republican dummy loses its statistical significance. In other words, it is not the party label itself that weakens the dollar, it is the trade policy behavior that typically accompanies Republican governance. The political identity variable is, in effect, a proxy for the protectionism that comes with it.

This effect is also visible in currency options markets. When trade uncertainty spikes, for example, after a major tariff announcement, implied volatility rises sharply, particularly for deep out-of-the-money put options on the dollar. This tells us that the market is not just revising its average expectation downward; it is actively hedging against the risk of a sudden, large depreciation. The market treats Republican trade policy not as an inconvenience but as a source of tail risk.

Finally, the trade policy channel does not operate equally across all currencies. Countries that are more deeply integrated into U.S. trade, in other words, countries that depend more heavily on access to the American market, experience larger exchange rate moves when U.S. trade policy shifts.

The Euro Area, as the United States' single largest trading partner in terms of volume and strategic importance, sits at the centre of this dynamic. This is part of why the USD/EUR pair is so sensitive to U.S. presidential transitions and why it is the right pair to focus on in this thesis.

1.1.4 Where This Study Fits In

The literature on presidential cycles provides a strong long-run baseline. But Della Corte and Fu's framework is built on monthly data and annual averages, it tells us about dollar performance over the course of a full presidential term, not what happens in the days and weeks immediately surrounding an inauguration. That is the gap this thesis fills. Both the 2017 and 2025 transitions show a specific short-window pattern, what this study calls an "inauguration break", where the dollar peaks just before the new Republican president takes office and then falls as markets begin pricing in the uncertainty ahead.

By focusing on this short-window event, this research adds a high-frequency perspective to the long-run findings of Della Corte and Fu, and tests whether the regime-change effect is powerful enough to manifest within days rather than just over years. The 2025 case is particularly valuable as a natural experiment: Donald Trump is the same individual taking office for a second time, under materially different economic conditions. If the same inauguration-break pattern appears in 2025 as in 2017, that is strong evidence that the effect is driven by partisan policy identity, specifically the trade uncertainty associated with Republican governance, rather than by anything unique to Trump as a person or to the specific economic environment of 2017.

1.2 The Foreign Exchange Market and the USD/EUR Relationship

1.2.1 How the FX Market Works

The foreign exchange market is the largest and most liquid financial market in the world, operating continuously across global trading centres, with no single central location. It is a decentralised, over-the-counter network where currencies are bought and sold at prices that reflect the collective judgement of banks, institutional investors, governments, and increasingly algorithmic trading systems.

The market as we know it today was born from the collapse of the Bretton Woods fixed-exchange-rate system in the early 1970s. Once currencies were allowed to float freely, their prices began reflecting not just trade flows but also capital flows, interest rate expectations, and political risk. That last category, political risk, is what this thesis is concerned with.

The FX market prices information in real time, which means that political signals, including who wins an election or what policy an incoming president announces, can move exchange rates before any macroeconomic data is updated.

1.2.2 Why the USD/EUR Pair Matters

The USD/EUR currency pair is arguably the most watched and traded in the world. It represents the exchange relationship between the two largest economic blocs, the United States and the Eurozone, and the two most widely held reserve currencies. Since the physical introduction of the Euro in 2002, this pair has served as a reliable barometer for transatlantic economic relations and, more broadly, for the health of the global financial system.

Under normal conditions, the pair tracks interest rate differentials between the Federal Reserve and the European Central Bank, along with standard macroeconomic fundamentals such as growth and current account balances. But during U.S. presidential transitions, particularly when power shifts to a more protectionist administration, the pair takes on an additional dimension. The dollar, as the world's primary reserve currency and safe-haven asset, tends to strengthen in anticipation of expansionary fiscal policy and then weaken as trade-related uncertainty materialises. The Euro, as the most significant alternative to the dollar in the global reserve system, absorbs that dynamic directly. This makes the USD/EUR pair the natural focal point for a study of how political transitions affect currency markets.

It is also worth noting that this pair has a history of moving in ways that defy simple explanation. The Euro debt crisis, the 2022 parity shock, and the repeated failures of standard interest-rate-based models to predict its behaviour all suggest that political and institutional factors play a larger role here than in most currency pairs. The presidential cycle effect, rather than being an anomaly, fits naturally into this longer pattern of politically driven exchange rate dynamics.

1.3 Interest Rate Parity: The Baseline Theory

To appreciate why political risk represents such a departure from the standard playbook, it is useful to understand the standard playbook first. The Interest Rate Parity (IRP) framework is the conventional theoretical baseline for how exchange rates and interest rates relate to one another, and it is the benchmark against which political deviations are measured.

1.3.1 Interest Rate Parity (IRP)

IRP rests on a no-arbitrage condition: in an open and efficient financial market, it should not be possible to earn risk-free profits by moving money between currencies. If one country offers a higher interest rate than another, the exchange rate should adjust in a way that eliminates any gain from switching currencies. This links spot rates, forward rates, and interest differentials into a single equilibrium relationship. When IRP holds, the return on a domestic asset is equivalent to the return on a foreign asset when measured in the same currency — ensuring that capital has no systematic incentive to flow in one direction.

1.3.2 Covered Interest Parity (CIP)

Covered Interest Parity is the more mechanical, guaranteed version of IRP. An investor who converts funds into a foreign currency, earns interest abroad, and simultaneously locks in the return exchange rate through a forward contract takes on no currency risk whatsoever. CIP says that under these conditions, the net return must equal what the investor would have earned domestically. If it does not, arbitrage restores the balance almost immediately. CIP is generally well-supported in practice, at least during normal market conditions, and deviations from it tend to be small and short-lived.

1.3.3 Uncovered Interest Parity (UIP) and Its Failure

Uncovered Interest Parity removes the forward contract. Instead of hedging, the investor bets on where the exchange rate will be in the future. UIP states that a currency offering a higher interest

rate should depreciate by exactly enough to cancel out the interest advantage, leaving investors indifferent between the two currencies.

In practice, UIP consistently fails. Higher-interest-rate currencies tend to appreciate rather than depreciate — a well-known anomaly called the "forward premium puzzle." During U.S. presidential transitions, the failures become even more pronounced, for a specific reason: it is not interest rate differentials that are driving the exchange rate — it is Trade Policy Uncertainty. When protectionist rhetoric spikes and markets price in the risk of tariffs and trade disruptions, the dollar moves in ways that standard interest-rate models simply cannot predict. The political risk premium, as documented by Della Corte and Fu (2020), takes over precisely where UIP breaks down. This is why an analysis of the 2017 and 2025 transitions cannot rely on IRP-based models alone — it must account for the political dimension that standard theory leaves out.

1.4 Research Question and Case Studies

This thesis examines whether the structural asymmetries in the USD/EUR exchange rate that characterise long-run presidential cycles — as documented by Della Corte and Fu (2020) — are also visible at high frequency, specifically in the days and weeks surrounding a presidential inauguration. The focus is on two Democratic-to-Republican transitions: Obama to Trump in 2017, and Biden to Trump in 2025. By comparing two episodes that share the same partisan direction of change but differ in their macroeconomic context, the study tests whether the so-called "inauguration break" — a peak in dollar strength followed by a depreciation as trade uncertainty materialises — is a repeatable, structurally driven phenomenon.

1.4.1 The 2017 Case Study: Obama–Trump

The 2017 transition exhibited a textbook two-stage pattern. In the months leading up to the inauguration, the dollar strengthened considerably. Markets were pricing in Trump's campaign promises of large-scale tax cuts, deregulation, and infrastructure investment — all of which pointed to faster U.S. growth and higher interest rates. On those expectations alone, the dollar was attractive.

But once the administration took office and began pursuing protectionist trade policies — executive orders targeting specific imports, early rhetoric on renegotiating NAFTA, and signals of a confrontational stance toward the EU — a different kind of uncertainty entered the picture. The initial optimism gave way to concern about trade disruption, and the dollar began to weaken as the market absorbed the reality of what a Republican trade agenda looked like in practice. This trend is illustrated in Figure 1.1 below.



Figure 1.1 – USD/EUR Exchange Rate, Trump Administration (First Term, 2017)

1.4.2 The 2025 Case Study: Biden–Trump

The 2025 transition is in many ways a sharper and more concentrated version of the same dynamic. On January 17, 2025 — the last full trading day of the Biden administration — the U.S. dollar marked a documented high against the Euro, as markets positioned themselves ahead of the incoming administration. Then, starting from inauguration day on January 20, 2025, the dollar began to fall. Markets quickly began pricing in a new wave of trade policy uncertainty: tariff threats directed at the EU, signals of a more confrontational posture toward multilateral trade institutions, and the general sense that U.S. trade relations would become less predictable under a second Trump term.

This "inauguration break" — the reversal in dollar strength that occurs precisely at the moment of political transition — mirrors the pattern documented in 2017. The fact that it happens again in 2025, under different economic conditions and with a different baseline for interest rates and

inflation, strengthens the case that the effect is structural rather than coincidental. This trend is illustrated in Figure 1.2 below.



Figure 1.2 – USD/EUR Exchange Rate, Trump Administration (Second Term, 2025)

1.4.3 Scope and Temporal Parameters

Both case studies are analysed over a one-year window following each inauguration. This time frame is long enough to capture the market's full adjustment to the new policy environment, but short enough to separate the transition effect from broader macroeconomic cycles. The one-year window also aligns with the annual return figures reported by Della Corte and Fu (2020), which allows for a direct comparison between the long-run averages in the literature and the specific episodes examined here.

The central question driving both case studies is the same: does a Republican inauguration — specifically one that follows a Democratic administration — reliably produce a short-term peak in dollar strength followed by a depreciation driven by trade policy uncertainty? If the answer is yes in both 2017 and 2025, despite the very different macroeconomic backdrops of those two moments, that would constitute strong evidence for the existence of a structural, partisan Political Risk Premium that devalues the dollar against the Euro irrespective of general global economic conditions.

Chapter 2

The Methodology

2.1 Introduction to the Non-Linear ARDL (NARDL) model

2.1.1 Theoretical definition

The NARDL model is considered as an innovation that challenges the limitations imposed by the assumption of linearity. Unlike in the linear cointegration models where the underlying assumption is that symmetry exists such that the effect caused by a positive shock is equal to that which is generated by a negative shock, NARDL models are premised on the understanding that reality in economic dynamics entails non-symmetry and directional complexity. Conceptually, this model can be said to lie between structural and behavioral economics because market actors react to shocks in an asymmetric manner.

The foundation of NARDL can be found in the concept of partial sum decomposition. In other words, partial sum decomposition makes it possible to decompose one time series into two paths; the first one is associated with the accumulation of positive innovations while the latter relates to negative innovations. The difference between NARDL and other models lies in the assumption

that positive and negative innovations act independently, meaning that the NARDL will consider both as the determinants of the dependent variable. The significance of this approach from the point of view of theory consists in the fact that the presence of hidden cointegration is detected. It means that the variables do not show any connection on the linear level, however, there is a deep relationship existing between them.

Moreover, the NARDL model makes a distinction between the impact and settlement effects of shocks on the economy. While the short-run asymmetry deals with the immediate impact of such shocks in form of sudden and violent responses of the system to new developments, long-run asymmetry is concerned about the eventual end point of the equilibrium where there is an evaluation of the effect of the shock on the slope of the equilibrium relation. The theoretical elegance of this two-dimensional approach is that it allows for sufficient versatility, thus giving a picture of the whole path of adjustment through dynamic multipliers. Dynamic multipliers enable us to see the complete picture of the speed of adjustment process through which errors within the system can be corrected.

As a very important aspect of the selected methodology, there is the need for the emphasis on the use of asymptotics as opposed to simulation. In most cases where sample sizes are relatively small, the use of Monte Carlo simulation is applied when determining critical values or even the strength of the hypothesis testing procedures. But in the context of analysis of data at high frequencies, these simulations will not be necessary. As a theoretical construct, the NARDL model is defined as being "asymptotically consistent", which means that the coefficient estimates tend towards those of the entire population with increasing sample size. When large-scale high frequency datasets are analyzed, the sample size becomes so big that there is enough statistical power to ensure the test statistics' adherence to the normal distributions. The use of Monte Carlo simulations in this process becomes unnecessary from a professional point of view.

2.1.2 Mathematical structure.

The current research will focus on exploring the asymmetric behavior of the USD/EUR exchange rate with respect to variations in the presidential political climate in the United States, employing a nonlinear autoregressive distributed lag model known as NARDL that was designed by Shin et al., (2014). To ensure the most precise and accurate results in the context under consideration, the analysis will be carried out on a weekly basis for the data collected during the first year following each of the last two presidencies in which democratic presidents were succeeded by republican ones (i.e., Obama-Trump and Biden-Trump administrations).

The use of the first year only during each presidential term as the period for data collection is a conscious and theory-based decision. The transitional period shortly after a president's inauguration is the time when the greatest number of political and economic adjustments occur. It is in this period that market participants form their first, albeit asymmetric, expectations regarding the economic management under the new political regime. Therefore, it can be argued that the first year after a presidential inauguration offers the best opportunity to conduct an empirical analysis aimed at understanding how the exchange rate reacts to political regime change. The study will exclude any observations from periods of political shifts occurring in mid-term elections. Such an approach ensures that the effect of political change on exchange rates is captured purely. Statistically speaking, the sample size will be of 49 usable weeks for testing the theoretical model based on the NARDL technique as explained in the last section of this chapter.

The dependent variable used in the study includes the weekly exchange rate between USD/EUR, which is seen to be a good proxy for market sentiments and economic confidence. In this case, the independent variable will include the Economic Policy Uncertainty Index (EPU). Following the procedures set out by the NARDL approach, this political indicator is first broken down into the positive and negative partial sums to find out if there is any differential response by the exchange rate depending on whether the changes are upwards or downwards. All variables have been logged to stabilize the variance.

The NARDL model, as formalized by Shin et al. (2014), provides a unified and flexible econometric framework for simultaneously estimating both long-run and short-run asymmetries

within a single-equation error correction structure. The theoretical process followed in this study proceeds through seven methodological steps, each of which is described below.

Step 1: Partial Sum Decomposition

The first and most fundamental step of the NARDL approach is the decomposition of the explanatory variable into its positive and negative partial sum components. Rather than treating the political regime variable as a single continuous series, which would implicitly assume that the exchange rate responds symmetrically to all changes, the NARDL framework requires the variable to be split into two distinct series. Following Shin et al. (2014), the explanatory variable x_t is decomposed as $x_t = x_0 + x_t^+ + x_t^-$, where the positive partial sum process x_t^+ accumulates all positive changes (increases) in the political variable, and the negative partial sum process x_t^- accumulates all negative changes (decreases).

The use of these separate processes enables the analysis to find out if the euro appreciates or depreciates more strongly as a result of the positive or negative shock. In case there is statistical significance between the values of these two coefficients, this provides a clear indication of asymmetry of the foreign exchange market reaction to changes in the US presidential environment.

Step 2: Lag Selection

After building up the partial sums decomposition for the model, the next step is to identify how many lag values should be included in the model. If we consider weekly data, a lag value is an extra week of data beyond the present period that might affect the exchange rate.

In order to choose the best lag order in the NARDL approach, this research applies the Akaike Information Criterion (AIC) and Schwarz Bayesian Criterion (SBC), otherwise referred to as Bayesian Information Criterion (BIC). Choosing an appropriate lag order is crucial in time series modeling since it poses the inherent challenge between the completeness and simplicity of the models. Too low an amount of lags means that the model will be subject to omitted variable bias where the historical aspects of the USD/EUR exchange rate will not be captured adequately. Though both criteria give a mathematical score which can be used in assessing the model efficiency, the latter criterion will be used as the major one for determining the lag order. This

decision is made considering the principle of parsimony, as SBC has a more severe penalty for inclusion of additional variables than AIC. Taking into account that the sample size consists of weekly observations from the first year of each term (the total sample size will be of 98, 49 total observations per year), SBC will be considered as the best criterion that enables obtaining a reliable and stable model. Using SBC for minimizing the score of the model and choosing the optimal lag order allows constructing a meaningful and significant NARDL model.

Step 3: The Nonlinear Error Correction Model (ECM)

The core engine of the NARDL framework is its Error Correction Model (ECM) representation. The ECM serves a dual purpose: it simultaneously models the short-run weekly fluctuations in the exchange rate and captures the speed at which the exchange rate returns to its long-run equilibrium following a disturbance. As formally derived by Shin et al. (2014), the conditional nonlinear ECM takes the following general form:

$$\Delta y_t = \rho \xi_{t-1} + \sum \gamma_j \Delta y_{t-j} + \sum (\varphi_j^+ \Delta x_{t-j}^+ + \varphi_j^- \Delta x_{t-j}^-) + e_t$$

(Equation 2.1)

In this expression, Δ denotes the first-difference operator, so that Δy_t represents the weekly change in the exchange rate.

The term ξ_{t-1} is the nonlinear error correction term, defined as $y_{t-1} - \beta^+ x_{t-1}^+ - \beta^- x_{t-1}^-$, which measures the deviation of the exchange rate from its long-run equilibrium in the previous period. The parameter ρ of this equation is the error correction factor, which must be negative and significant. This will verify the mean-reverting characteristic of the exchange rate. The absolute value of ρ denotes the proportion of the deviation that is adjusted weekly. For example, an ρ value of -0.2 shows that 20% of the deviation is adjusted each week. The short-run dynamics are governed by the coefficients φ_j^+ and φ_j^- , which capture the immediate weekly impact of positive and negative political shocks on the exchange rate, respectively.

Step 4: The Bounds Test for Cointegration

However, before any long-run association can be interpreted, it needs to be confirmed that there is indeed an existing long-run association between the exchange rate and the variable

representing the presidential regime. This paper uses the bounds testing approach introduced by Pesaran et al. (2001), which was later incorporated into the NARDL model by Shin et al. (2014). The test assesses the joint null hypothesis that the long-run level coefficients in the ECM are all zero, implying the absence of any long-run relationship. Two test statistics are calculated: the first, t-statistic (tBDM) introduced by Banerjee et al. (1998), examines the significance of the error correction parameter ρ , while the second statistic, the joint F-statistic (FPSS), based on Pesaran et al. (2001), checks for the significance of all the level terms. The main benefit of this method is that it is applicable in the case when the data series under consideration are either $I(0)$, $I(1)$, or cointegrated, a feature of great utility since the exact properties of the political proxy variable cannot always be determined. The null of no long-run relationship will be rejected if the test statistics exceed the upper bound of the critical values.

Step 5: The Long-Run Asymmetric Regression

Once cointegration has been established, the long-run asymmetric relationship between the exchange rate and the presidential regime variable is characterised by the following regression, which lies at the conceptual heart of the NARDL model (Shin et al., 2014, Eq. 9.1):

$$y_t = \beta^+ x_t^+ + \beta^- x_t^- + u_t$$

(Equation 2.2)

In this equation, y_t is dependent variable and represents the natural logarithm of the weekly USD/EUR exchange rate. Using the log-form is a standard econometric practice to stabilize variance and allow the coefficients to be interpreted as elasticities.

x_t^+ and x_t^- These are the positive and negative partial sums of the Economic Policy Uncertainty (EPU) index. They allow the model to isolate the specific impact of increasing uncertainty versus decreasing uncertainty.

u_t is the error term and represent the external variables not explicitly included in the model that may influence the exchange rate.

and β^+ and β^- are the long-run asymmetric coefficients these parameters quantify the permanent impact of political shocks. They represent the final equilibrium level where the exchange rate settles after the initial market "noise" of a presidential transition has cleared. In the NARDL

framework, these coefficients are recovered from the ECM as $\beta^+ = -\theta^+/\rho$ and $\beta^- = -\theta^-/\rho$, where θ^+ and θ^- are the level coefficients on x_t-1^+ and x_t-1^- in Equation 2.1. The crucial economic interpretation of this formula is that β^+ captures the final stable level that the exchange rate settles at in response to a sustained positive change in the political environment, while β^- captures the equivalent effect of a sustained negative change.

This is the equilibrium that the market converges toward once the transition noise of the first presidential year has dissipated. If $\beta^+ \neq \beta^-$, the exchange rate's long-run destination is fundamentally different depending on whether the political shock was positive or negative, a result that a symmetric linear model would be entirely incapable of detecting.

Step 6: The Wald Test for Asymmetry

The Wald test provides the formal statistical proof of whether the observed difference between β^+ and β^- , and between the short-run coefficients ϕ_j^+ and ϕ_j^- , is statistically significant or merely the result of sampling variation. Two distinct Wald tests are conducted. The long-run Wald test (WLR) evaluates the null hypothesis $H_0: \beta^+ = \beta^-$, testing whether the exchange rate ultimately reaches the same equilibrium regardless of the sign of the political shock. The short-run Wald test (WSR) evaluates the null hypothesis $H_0: \Sigma\phi_j^+ = \Sigma\phi_j^-$, testing whether the cumulative immediate impact of positive shocks is equal to that of negative shocks. Under the null of symmetry, both statistics follow an asymptotic chi-squared distribution (χ^2), and rejection of the null in either or both cases constitutes evidence that the exchange rate's reaction to presidential regime change is genuinely asymmetric or lopsided. These results are central to the thesis's core research question.

Step 7: Diagnostic Checks

To make sure the results obtained from the estimation of the NARDL model are robust and are not due to any technical misspecification issues, a set of tests is carried out on the residuals of the ECM. Among them are a Breusch-Godfrey LM test for autocorrelation to determine whether the residuals are independently distributed over time, which is an essential assumption of OLS estimation. To make sure the residuals are not heteroscedastic, a test for heteroscedasticity such as a White test or Breusch-Pagan test is carried out to ensure there are no variances in the errors. To ascertain that there is no specification error with regards to the functional form of the ECM, a

Ramsey RESET test is performed. The last test performed is a Jarque-Bera test for the normality of the residuals since the chi-squared distribution approximated by the Wald and bounds test depends on normality.

2.2 Why using NARDL?

The choice of employing the Nonlinear Autoregressive Distributed Lag model (NARDL) as the main analytical tool in the present investigation was made in light of the neutral bias characteristic of the classical econometric methods. Asymmetric models assume the existence of an identity, or an equal reaction of the market in response to any positive or negative economic shocks. However, in practice, the situation in the field of foreign exchange, especially in relation to the USD/EUR currency pair, is quite complicated due to the psychological component associated with the behavior of international investors. Transitions from one administration to another, e.g., Obama, Trump, and Biden, can hardly be considered simple administrative or personnel changes but rather deep structural breaks in terms of trading policies, budgetary issues, and identity. The NARDL model allows us to capture all these aspects through dividing independent variables into positive and negative partial sums; thus, the exchange rate will react differently depending on whether it has experienced political shocks.

When it comes to regime change in the United States, "the identity of the executive branch" becomes the first and foremost reason that causes policy uncertainty on the part of protectionism. For example, a regime change toward a populist and/or isolationist executive branch does not just cause exchange rate fluctuations; instead, it completely changes the risk premium of the market. The NARDL methodology is clearly better suited to study policy uncertainty because it considers increases and decreases as two separate variables of policy uncertainty. Therefore, one can determine if the Euro's response to an increase in U.S. protectionism is more sudden and violent than its response to an easing of protectionism in terms of loss aversion. This is when "hidden cointegration" can be revealed using the NARDL methodology because it does not just

average the relationships but rather highlights the long-run connections between the dependent and independent variables.

In addition, the NARDL method provides a better visual understanding of the speed of adjustment using asymmetric dynamic multipliers. The asymmetric dynamic multipliers provide a full view, in a 360-degree fashion of the speed of adjustment, showing how long it takes for the USD/EUR pair to repair its own mistakes and achieve a new balance under the new governing system. This is important because it allows us to distinguish between the temporary fluctuations within an election campaign and the long-term effects of the new governing philosophy. It also shows us if the market learned from its mistakes within the old regime.

It is vital to note that the effectiveness of the statistical approach is supported by the fact that the nature of the data is such that the quality of the results is increased. Since this paper uses daily observation of exchange rates, it is evident that the model will have excellent statistical power and asymptotic consistency

2.3 Why using EPU?

The Economic Policy Uncertainty (EPU) index created by Baker, Bloom and Davis (2016) is used as an independent variable in this research as the mechanism of influence that can be considered quantitatively in this case. As Della Corte and Fu (2020) demonstrate, what actually causes the dynamics of the dollar in Republican administrations is not the partisan identity, but uncertainty in terms of trade policy. In particular, the EPU index accounts for exactly this kind of uncertainty, combining three different variables, newspaper articles on uncertainty, expiration of tax policy provisions and disagreement between economic forecasters, in one time-series. The availability of such a dataset at a weekly frequency is especially convenient for the purpose of this research.

Apart from conceptual congruity with the research question, however, the EPU index boasts some features that justify its application to the NARDL model.

Given its continuous nature, the index can be broken down into positive and negative partial sums, an essential operation when following the NARDL procedure suggested by Shin et al. (2014), without losing any information. In this way, one can identify whether the exchange rate reacts differently to increases in uncertainty as compared to decreases in uncertainty, something a binary partisan dummy variable and a tariff variable cannot achieve. Additionally, the index has been developed openly and consistently, thus facilitating replication as well as comparison of results in the two considered transition windows. Most importantly, however, its inclusion in the 2025 window is particularly justified due to the much higher baseline economic policy uncertainty observed in this period, captured effectively by the index.

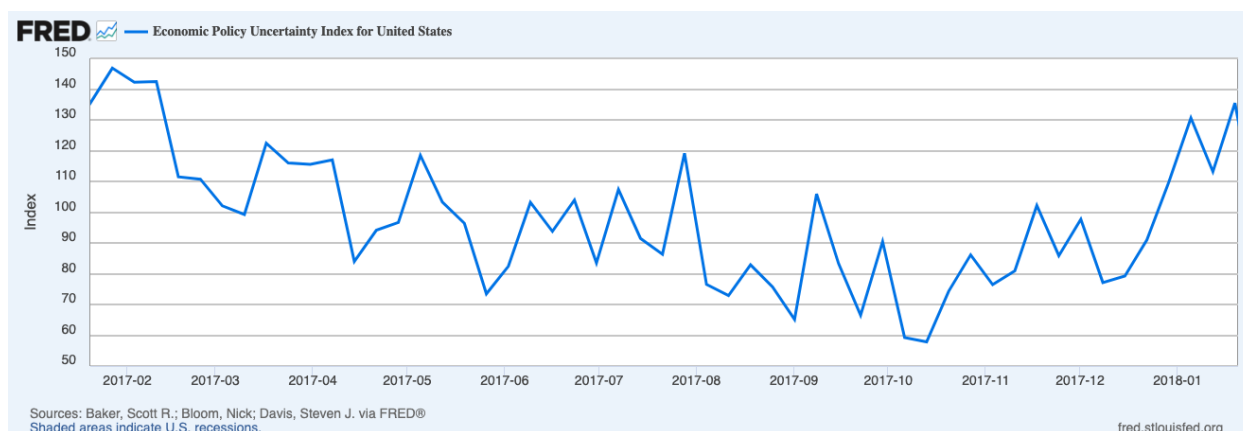


Figure 2.1 – EPU Graph (20/01/2017-20/01/2018)

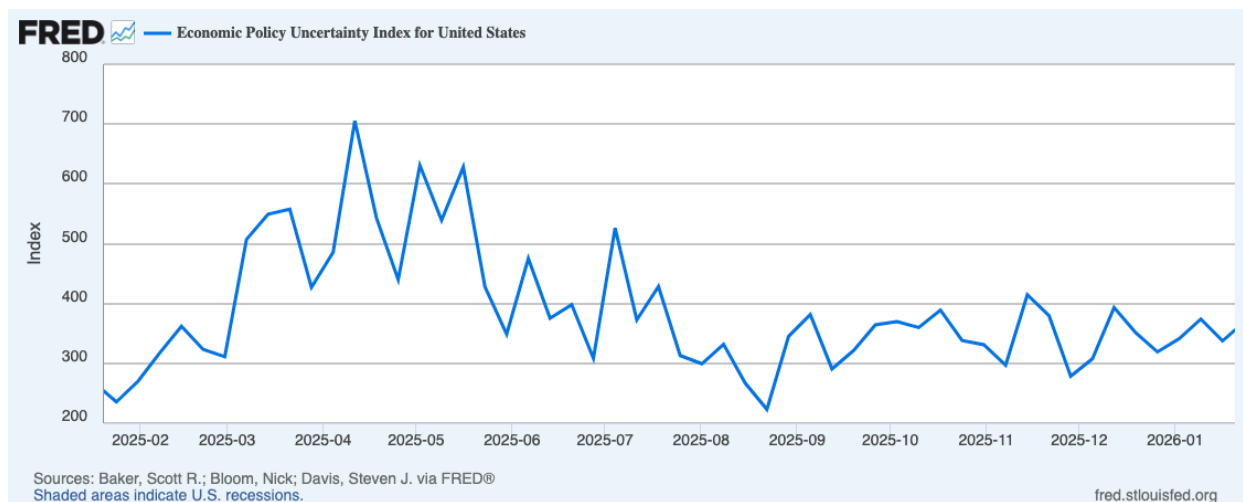


Figure 2.2 – EPU graph (20/01/2025-20/01/2026)

CHAPTER 3

NARDL Analysis of EPU and the USD/EUR Exchange Rate

3.1 Overview and Context

In this chapter, the author provides a comprehensive empirical interpretation of the NARDL estimations carried out for two separate periods of presidential transition in the United States: from Obama to Trump in early 2017, and from Biden to Trump in early 2025. For explanatory purposes, the Economic Policy Uncertainty (EPU) index is considered, where partial sums representing its positive values, x_p , reflect increases in economic policy uncertainty, while partial sums of its negative values, x_n , indicate reductions in economic policy uncertainty. The dependent variable y is the bilateral USD/EUR exchange rate in terms of USD per EUR; hence, a higher value of y represents the depreciation of the dollar relative to the euro.

Each period under analysis contains a total of 49 observations. Three major research questions are answered:

whether the impact of EPU shocks on the USD/EUR exchange rate was symmetric or asymmetric during each period considered in both short-run and long-run perspectives; whether there were differences in explaining and interpreting the EPU–exchange rate link in terms of significance and goodness-of-fit between the two periods; whether the characteristics of asymmetry between periods differed.

3.2 Obama–Trump Transition Period (2017)

The data used in this study are provided in Appendix I.

3.2.1 Overall Model Fit and Short-Run Dynamics

The NARDL model in the transition period 2017 has the adjusted R^2 value of 0.012, which shows that the regressors explain only 1.2% of variance in the weekly change of the USD/EUR exchange rate. The global F-statistic of 1.150 gives us a p-value of 0.346, which is significantly higher than any level of statistical significance that we may apply, proving that the NARDL model cannot explain the exchange rate changes in the specified period.

In terms of the short-run regressors, y_1 (0.187, $p = 0.204$) and y_2 (−0.279, $p = 0.072$) are used to represent the autoregressive processes of exchange rate fluctuations. Neither the contemporaneous positive EPU shock x_p (−0.005, $p = 0.451$) nor the contemporaneous negative EPU shock x_n (−0.007, $p = 0.290$) is statistically significant or large in absolute values.

Thus, it is evident that the changes in economic policy uncertainty on a weekly basis did not affect the USD/EUR exchange rate in any noticeable way during the period of transition between President Obama and President Trump.

3.2.2 Cointegration Evidence

The cointegration F-test from Pesaran, Shin and Smith (2001), based on the F-statistic of 1.150, is significantly lower than the lower bound of $I(0)$ critical value of 3.333 at the 10% level of

significance. Thus, there is no cointegration between EPU and the USD/EUR exchange rates in 2017. In light of this finding, long-run coefficients can be regarded as questionable and should not be trusted because they may not indicate an equilibrium relation.

3.2.3 Long-Run Coefficients

Though a lack of cointegration exists between the two series, it is still observed that $L^+ = 0.026$ ($p = 0.517$) and $L^- = 0.037$ ($p = 0.422$). Both the coefficients can be regarded as insignificant at least statistically to a large extent. The only long-run coefficient that is significant statistically is that of y_2 (1.488, $p = 0.006$) and this arises from the autocorrelation of the exchange rate itself rather than any effect of policy uncertainty.

3.2.4 Symmetry Tests

In terms of the short-run asymmetry Wald test, the W statistic is equal to 1.047 with a p -value of 0.593. The above findings do not provide any evidence in support of rejecting the null hypothesis $H_0: \sum \phi_{j+} = \sum \phi_{j-}$ of short-run symmetry: the short-run effect of x_p is statistically indistinguishable from that of x_n .

It should be noted that the long-run asymmetry Wald test provides us with the W -statistic of 29.784 with the respective p -value of 3.4×10^{-7} , thus rejecting the null hypothesis $H_0: L^+ = L^-$. However, the above conclusion needs to be treated with caution because the lack of cointegration and insignificance of both L^+ and L^- imply that the rejection of long-run symmetry should not be taken seriously due to the numerical instability of the estimated long-run ratio $L^\pm = -\theta^\pm/\rho$ in case there is no cointegration at all.

To sum up, we should note that the 2017 Obama-Trump transition period is associated with total lack of statistically or economically meaningful connection between EPU and the exchange rate of the USD/EUR pair.

3.3 Biden–Trump Transition Period (2025)

The data used in this study are provided in Appendix II

3.3.1 Overall Model Fit and Short-Run Dynamics

The NARDL framework for the period leading up to 2025 shows an entirely different scenario compared to 2017. First, the adjusted R^2 increases to 0.269, signifying that the model explains about 27% of the variations in the weekly changes in USD/EUR currency exchange rate – which represents quite a leap from the situation in 2017. Also, the overall F-statistic of 3.939 is statistically significant at 1% ($p = 0.003$) significance level.

The coefficient for error correction $y_1 = -0.159$ indicates statistically significant (at 5%) error correction mechanism in the short-run. In other words, deviations from the long-run relationship are corrected at the rate of 15.9% per week, something that was completely lacking in 2017.

As far as the short-run regressors go, there is statistical significance (at 1%) on both the contemporaneous and lagged variables. A contemporaneous positive shock $x_p = 0.030$ ($p = 0.003$) is statistically significant at 1%, and its lag $x_{p,1} = -0.024$ ($p = 0.014$) is significant at 5%. Since the signs of the coefficients are different, a positive EPU shock depreciates dollar in the contemporaneous period, although that depreciation is reversed in the next week.

As far as the negative EPU component is concerned, the values of x_n and $x_{n,1} = -0.027$ ($p = 0.023$) and $+0.031$ ($p = 0.019$), respectively, confirm that a reduction in EPU will be followed immediately by an appreciation of the dollar value, and subsequently, there will be some offset in the next period. The effect of the third lag, $x_{n,2}$ ($p = 0.957$), is not significant.

3.3.2 Cointegration Evidence

The Pesaran, Shin, and Smith test results produce an F statistic of 3.939, which is higher than the lower bound value for $I(0)$ at the 10% confidence interval (3.333) but very close to the lower $I(0)$ bound for 5% (4.07). This implies that there is evidence of cointegration, albeit on the borderline

side, since the result is very economically significant, particularly when compared to the 2017 case, in which there was no evidence of cointegration.

3.3.3 Long-Run Coefficients

$L+ = 0.187$ ($p = 0.027$). The results indicate that a persistent increase in uncertainty concerning economic policy in the United States will lead to depreciation of the dollar compared to the euro in the long run. It means that a one unit increase in EPU will lead to an increase in USD/EUR by 0.187 units.

$L- = -0.173$ ($p = 0.051$). A persistent decrease in uncertainty will result in a long-run appreciation of the dollar, as was expected. However, the strength and the statistical significance of the relationship are lower than in the case of a positive shock.

3.3.4 Symmetry Tests

The short-run asymmetry Wald test indicates a highly significant W-statistic value of 10.417, which is associated with a p-value of 0.005. This means that the null hypothesis can be rejected with sufficient statistical evidence supporting the conclusion that both x_p and x_n shocks have no symmetric effect on the USD/EUR exchange rate. The contemporaneous coefficients for x_p (0.030) and x_n (-0.027) have different levels and timing of correction.

The extremely high W-statistic value of 414.592 is accompanied by a nearly zero p-value (approximately equal to 9.4×10^{-91}). Thus, the null hypothesis can be rejected as there is statistical proof that both responses ($L+$, $L-$) are significantly different. In particular, the long-run response to x_p ($L+ = 0.187$) differs substantially from the response to x_n ($L- = -0.173$) shocks, indicating that the dollar tends to depreciate more with growing uncertainty than appreciate with decreasing uncertainty.

3.4 Comparative Summary: Key Statistics

NARDL Analysis — Comparative Summary of Key Statistics			
USD/EUR Exchange Rate vs. Economic Policy Uncertainty (EPU) Presidential Transition Periods			
Statistic	2017 Obama–Trump	2025 Biden–Trump	Interpretation
Observations	49	49	Equal sample size — comparable windows
Adjusted R ²	0.012	0.269	EPU explains 26.9% of USD/EUR variation in 2025 vs. ~1% in 2017
Overall F-statistic (p-value)	1.150 (p = 0.346)	3.939 (p = 0.003***)	Model globally significant in 2025 only
Bounds Test F-stat (PSS)	1.150 — no cointegration	3.939 — borderline (10%)	Long-run equilibrium absent in 2017; suggestive in 2025
Error-correction speed (γ_1)	<i>n.s.</i> (no ECM)	-0.159 (p = 0.023*)	15.9% per-week reversion to equilibrium in 2025
Short-run α_p (positive EPU shock)	-0.005 (<i>n.s.</i>)	0.030 (p = 0.003**)	Dollar depreciates on uncertainty rise in 2025
Short-run α_n (negative EPU shock)	-0.007 (<i>n.s.</i>)	-0.027 (p = 0.023*)	Dollar appreciates on uncertainty fall in 2025
Long-run multiplier L^+	0.026 (<i>n.s.</i>)	0.187 (p = 0.027*)	Permanent +1 EPU → +0.187 USD/EUR in long run
Long-run multiplier L^-	0.037 (<i>n.s.</i>)	-0.173 (p = 0.051.)	Permanent -1 EPU → -0.173 USD/EUR in long run
Short-run asymmetry W (p-value)	1.047 (0.593) — Symmetric	10.417 (0.005**) — Asymmetric	$L^+ \neq L^-$ short-run response in 2025
Long-run asymmetry W (p-value)	29.784 (3.4×10^{-7}) — Artefact†	414.592 (9.4×10^{-9}) — Asymmetric	Overwhelmingly asymmetric equilibrium in 2025
Diagnostics (JB / LM / ARCH)	All pass	All pass	Models structurally valid — no misspecification

† The 2017 long-run Wald rejection is a statistical artefact: both L^+ and L^- are individually insignificant and no cointegrating vector exists. Significance codes: *** p < 0.001 ** p < 0.01 * p < 0.05 . p < 0.10

3.5 Within-Period Symmetry Analysis

3.5.1 Symmetry in the 2017 Period

During the Obama–Trump transition window in 2017, the short-run asymmetric hypothesis test does not reject $H_0: \sum \phi_j^+ = \sum \phi_j^-$ ($W = 1.047$, $p = 0.593$). Despite the long-run Wald test ($W = 29.784$, $p = 3.4 \times 10^{-7}$), which rejects $H_0: L^+ = L^-$, such a conclusion cannot be economically justified because the variables do not have a cointegrating relationship (refer to Section 3.2.4). Since the EPU coefficients are insignificant across all the models, one may conclude about the actual lack of a mechanism linking EPU and exchange rate during the period under discussion, as indicated by a very poor fit of the model (adjusted $R^2 = 0.012$).

3.5.2 Asymmetry in the 2025 Period

In contrast, however, the transition period from 2025 between Biden and Trump reveals a strong and statistically significant asymmetry both in the short run and in the long run. In particular, the Wald test statistics for short-run asymmetry ($W = 10.417$; $p = 0.005$) and long-run asymmetry ($W = 414.592$; $p \approx 0$) provide evidence against symmetry at a high level of confidence.

In the short run, positive EPU shocks (x_p) lead to contemporaneous depreciation of the U.S. dollar equaling 0.030, higher in magnitude than depreciation induced by negative EPU shocks (x_n) equal to 0.027. The opposite-sign structure, $x_{p,1} = -0.024$ and $x_{n,1} = +0.031$, implies that the cumulative effect of a positive shock in the short run will be greater in magnitude than the same shock in the opposite direction.

For the long run, $L^+ = 0.187$ ($p = 0.027$) and $L^- = -0.173$ ($p = 0.051$). Testing for equality between the two parameters ($W = 414.592$) provides conclusive evidence that $L^+ \neq L^-$. In other words, uncertainty-increasing events have a more profound impact on financial markets than uncertainty-decreasing events of equal magnitude.

3.6 Cross-Period Asymmetry: 2017 vs. 2025

3.6.1 Asymmetry in Overall EPU Relevance

The primary type of cross-period asymmetry can be attributed to the basic relevance or lack of EPU as an independent variable. The result in 2017 is unequivocal, with all coefficients of EPU being insignificant and a lack of cointegration being observed. In 2025, the response is clearly affirmative, as global significance of the model at the 1% level, several coefficients of EPU having individually high significance, and a meaningful error correction mechanism were established.

The very dichotomy between these two responses, from EPU being irrelevant (adjusted $R^2 = 0.012$, F $p = 0.346$) to relevant (adjusted $R^2 = 0.269$, F $p = 0.003$), is what constitutes the strongest possible cross-period asymmetry. The 2017 result seems to have been largely priced in the currency market in anticipation of it, while the 2025 change introduced constant uncertainties moving the exchange rate.

3.6.2 Asymmetry in the Nature of Short-Run Effects

In 2017, since no significant coefficients for EPU are observed, there is no data for comparison regarding the direction of shock effect. In 2025, however, there is quite an intricate pattern of adjustment to the shock in the short run: x_p (0.030) causes a contemporaneous decrease of the dollar with a partial reverse through $x_{p,1}$ (−0.024), and x_n (−0.027) causes a contemporaneous increase of the dollar with partial reverse through $x_{n,1}$ (+0.031). The second lag $x_{n,2}$ ($p = 0.957$) does not have a significant effect, suggesting complete absorption in two periods.

3.6.3 Asymmetry in Long-Run Dynamics

The cross-period asymmetry of long-term dynamics is equally striking. While the long-run multipliers $L^+ = 0.026$ ($p = 0.517$) and $L^- = 0.037$ ($p = 0.422$) are both insignificant in 2017, in 2025, the long-run multiplier associated with positive EPU shocks increases to $L^+ = 0.187$ ($p = 0.027$), or almost seven times in absolute value and significant at the 5% level. The signs of uncertainty in 2025 implied that the signals carried structural meanings for economic policy in the United States, thus generating stable adjustments in the long run.

3.6.4 Asymmetry in the Symmetry Property Itself

The asymmetry of the two transitions in their own symmetry can be considered quite remarkable. Indeed, it turns out that whereas the 2017 period is symmetric in the short term ($W = 1.047$, $p = 0.593$), the 2025 period exhibits a pronounced degree of asymmetry, both in the short term ($W = 10.417$, $p = 0.005$) and even more so in the long term ($W = 414.592$, $p \approx 9.4 \times 10^{-91}$). In addition to the difference between the two transitions concerning the influence of economic policy uncertainty on the exchange rate, there is another significant difference concerning the structural nature of the mechanism by which that effect is produced. In the Biden-Trump transition period, the relationship is not only statistically significant, but also clearly nonlinear: $L^+ \neq L^-$ with high statistical significance.

3.7 Diagnostic Tests

Both models satisfy all diagnostic criteria, proving that the results obtained are free from structural errors and that their presence cannot be caused by the misspecification of the residuals. In particular, the Jarque-Bera test of normality of residuals produces p-values of 0.637 for 2017 and 0.684 for 2025, proving that residuals are properly normal for both time spans. At the same time, the Breusch-Godfrey LM test of serial correlation has produced p-values of 0.583 (for 2017, with 2 lags) and 0.751 (for 2025, with 1 lag). Lastly, the ARCH test of heteroskedasticity yielded p-values of 0.085 (for 2017, with 2 lags) and 0.341 (for 2025, with 1 lag). Hence, there are no structural issues associated with the model and its results.

All these facts prove that the difference in EPU significance and asymmetry is not an artifact caused by structural problems in the model, and asymmetry detected in the 2025 sample proves that it exists for certain reasons.

Conclusions

The NARDL results for the two transitions show an essential regime change in the relationship between EPU in the United States and the USD/EUR exchange rate. In the Obama–Trump transition of 2017, EPU does not have any impact, either statistically significant in the short-run or in the long-run, on the exchange rate ($x_p = -0.005$, $p = 0.451$; $x_n = -0.007$, $p = 0.290$). It accounts for essentially no variation in the process governing the movement of the exchange rate (Adjusted $R^2 = 0.012$), there is no long-run cointegration relationship ($F = 1.150$), and the short-run asymmetric response cannot distinguish between positive and negative EPU shocks ($W = 1.047$, $p = 0.593$): the relationship is symmetric, but symmetrically null.

EPU turns out to be a significant economic indicator affecting the USD/EUR exchange rate during the 2025 transition between the Trump and Biden presidencies. In particular, the speed of correction in the equilibrium process is -0.159 weekly ($p = 0.023$). Positive EPU shock x_p leads to a depreciation of the US dollar on impact (0.030 , $p = 0.003$) and in the long term ($L^+ = 0.187$, $p = 0.027$), whereas negative EPU shock x_n has an inverse effect (-0.027 , $p = 0.023$; $L^- = -0.173$, $p = 0.051$). Asymmetry is present both at short-term ($W = 10.417$, $p = 0.005$) and long-term horizons ($W = 414.592$, $p < 9.4 \times 10^{-91}$): $L^+ \neq L^-$, which means a greater exchange rate response to positive EPU than negative.

In other words, not only the impact levels are different across two presidential transitions but also the structural elements of the EPU-exchange rate transmission process, including the presence/absence of cointegration, significance of particular coefficients of EPU variables, as well as existence/nonexistence of nonlinear adjustment to the shock. This implies that there may exist some market conditions at which EPU becomes an informative signal influencing exchange rates.

The main inquiry that drives both the case studies concerns whether the election of a Republican president after a Democratic president leads to a predictable cycle of a temporary dollar appreciation and subsequent decline due to uncertainties in the trade policies, and whether such evidence found in both cases in 2017 and 2025 despite their completely different economic settings would create a structural Political Risk Premium for a dollar devaluation against the euro independent of economic cycles around the world.

The findings from the NARDL test clearly show that the answer to this question is a no in its most nuanced sense. The data collected across the two transition periods is contradictory to any notion of a predictable political currency pattern.

However, in the transition from Obama to Trump, 2017, the NARDL does not indicate any influence of EPU on the movements of the dollar at all. The entire model is statistically insignificant ($F = 1.150$, $p = 0.346$); both positive ($x_p = -0.005$, $p = 0.451$) and negative ($x_n = -0.007$, $p = 0.290$) shocks do not have any effect on the USD/EUR rate; there is no cointegration; the asymmetric short-run test shows that whatever change there is, it is symmetrical and null ($W = 1.047$, $p = 0.593$). There was no short-term peak in the dollar, no depreciation as a result of uncertainty, and no structural premium of any sort. In the case of 2017, the rate was fully dependent on its autoregressive pattern.

However, in 2025, when there is a transfer from Biden to Trump's policies, the situation looks absolutely differently. Thus, the model explains 26.9% of variation in USD/EUR weekly change (adjusted $R^2 = 0.269$), the majority of the coefficients in terms of EPU are significantly estimated both in the short run and in the long run, and asymmetry test results strongly deny symmetry ($W = 10.417$, $p = 0.005$ in the short run; $W = 414.592$, $p \approx 9.4 \times 10^{-91}$ in the long run). In fact, an increase in policy uncertainty results in dollar devaluation both in the short run

($x_p = 0.030$, $p = 0.003$) and in the long run ($L^+ = 0.187$, $p = 0.027$). Meanwhile, an opposite trend in the degree of uncertainty leads to weaker dollar valuation both in the short run ($x_n = -0.027$, $p = 0.023$) and in the long run ($L^- = -0.173$, $p = 0.051$).

But the observation that such a phenomenon is present in one scenario, but totally absent in the other proves just that, the absence of evidence for any structural theory about the effect of partisanship on political risk premiums. Indeed, for a Partisan Political Risk Premium to be confirmed regardless of global macroeconomic developments, the identical mechanism of its operation needs to be identified in both transitions. But what is observed in 2017 is the emergence of an era when the level of Economic Policy Uncertainty is not significant, whereas 2025 sees an age in which the importance of EPU cannot be overlooked; in fact, the two transitions differ in terms of every observable aspect, from cointegration ($F = 1.150$ vs $F = 3.939$) and model fit (adjusted $R^2 = 0.012$ vs 0.269) to statistical significance of coefficients, error correction rate, and the very presence of short-run asymmetry. It is the macroeconomic environment that counts here, not party affiliation.

The point that emerges, however, is not that there is no political risk premium; but rather, that any such risk premium, if it exists, is contingent, rather than structural. The Biden-Trump transition to power in 2025 produced an economically significant, asymmetric and robust depreciation of the dollar driven by EPU that the NARDL methodology was able to capture and measure. No such result was found in the case of the 2017 Obama-Trump transition to power. If the Partisan Political Risk Premium hypothesis holds in its strong form, namely as a structural phenomenon occurring predictably at Republican inaugurations, then both cases should have produced the same effect. This is clearly not the case. Any such political risk premium, when present, is thus contingent on trade policy uncertainty being credible, salient and structurally novel, rather than a simple product of partisan regime change alone. It is as yet an open empirical question whether the 2025 case constitutes a structural break in US dollar behaviour at Republican transitions, or a one-off high-uncertainty case.

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Appendix I

The dataset tracking the 2017 financial and policy environment consists of:

- **USD/EUR Exchange Rate:** Measures the external value of the US Dollar relative to the Euro.
- **Economic Policy Uncertainty (EPU) Index:** A news-based metric quantifying policy-related economic anxiety in the United States.

date	DEXUSEU	ln rate
27/01/17	1,0718	0,069
03/02/17	1,0765	0,074
10/02/17	1,0687	0,066
17/02/17	1,061	0,059
24/02/17	1,0568	0,055
03/03/17	1,0574	0,056
10/03/17	1,0594	0,058
17/03/17	1,0685	0,066
24/03/17	1,0791	0,076
31/03/17	1,0783	0,075
07/04/17	1,0649	0,063
14/04/17	1,0617	0,060
21/04/17	1,0705	0,068
28/04/17	1,0884	0,085
05/05/17	1,0941	0,090
12/05/17	1,0894	0,086
19/05/17	1,1101	0,104
26/05/17	1,1199	0,113
02/06/17	1,1226	0,116
09/06/17	1,1232	0,116
16/06/17	1,1204	0,114
23/06/17	1,1154	0,109
30/06/17	1,1338	0,126
07/07/17	1,1377	0,129
14/07/17	1,1415	0,132
21/07/17	1,1571	0,146
28/07/17	1,1668	0,154
04/08/17	1,1824	0,168
11/08/17	1,1764	0,162
18/08/17	1,1742	0,161
25/08/17	1,1811	0,166
01/09/17	1,1939	0,177
08/09/17	1,1981	0,181
15/09/17	1,1935	0,177
22/09/17	1,1966	0,179
29/09/17	1,1792	0,165
06/10/17	1,174	0,160
13/10/17	1,1832	0,168
20/10/17	1,179	0,165
27/10/17	1,1722	0,159
03/11/17	1,1636	0,152
10/11/17	1,1604	0,149
17/11/17	1,1757	0,162
24/11/17	1,1802	0,166
01/12/17	1,1891	0,173

date	USEPUNXD	ln rate
20/01/17	135,43	4,9085
27/01/17	146,81	4,9891
03/02/17	142,26	4,9577
10/02/17	142,45	4,9590
17/02/17	111,49	4,7139
24/02/17	110,72	4,7070
03/03/17	102,05	4,6255
10/03/17	99,26	4,5977
17/03/17	122,42	4,8075
24/03/17	115,97	4,7533
31/03/17	115,54	4,7496
07/04/17	116,97	4,7619
14/04/17	83,96	4,4303
21/04/17	94,12	4,5446
28/04/17	96,64	4,5710
05/05/17	118,48	4,7747
12/05/17	103,26	4,6373
19/05/17	96,38	4,5683
26/05/17	73,45	4,2966
02/06/17	82,44	4,4121
09/06/17	103,16	4,6363
16/06/17	93,75	4,5406
23/06/17	103,93	4,6437
30/06/17	83,5	4,4248
07/07/17	107,37	4,6763
14/07/17	91,48	4,5161
21/07/17	86,35	4,4584
28/07/17	119,12	4,7801
04/08/17	76,5	4,3373
11/08/17	72,9	4,2891
18/08/17	82,88	4,4174
25/08/17	75,69	4,3266
01/09/17	65,15	4,1767
08/09/17	105,92	4,6627
15/09/17	83,28	4,4222
22/09/17	66,51	4,1974
29/09/17	90,45	4,5048
06/10/17	59,23	4,0814
13/10/17	57,82	4,0573
20/10/17	74,28	4,3078
27/10/17	86,13	4,4559
03/11/17	76,45	4,3366
10/11/17	80,94	4,3937
17/11/17	102,17	4,6266
24/11/17	85,88	4,4530

08/12/17	1,1801	0,166
15/12/17	1,1769	0,163
22/12/17	1,1844	0,169

01/12/17	97,71	4,5820
08/12/17	77,12	4,3454
15/12/17	79,24	4,3725
22/12/17	91	4,5109

Appendix II

The dataset tracking the 2025 financial and policy environment consists of:

- **USD/EUR Exchange Rate:** Measures the external value of the US Dollar relative to the Euro.
- **Economic Policy Uncertainty (EPU) Index:** A news-based metric quantifying policy-related economic anxiety in the United States.

date	DEXUSEU	ln rate	date	USEPUINDXD	ln rate
24/01/25	1,0445	0,0435	24/01/25	235,57	5,4620
31/01/25	1,0431	0,0422	31/01/25	270,19	5,5991
07/02/25	1,0354	0,0348	07/02/25	317,51	5,7605
14/02/25	1,0395	0,0387	14/02/25	361,99	5,8916
21/02/25	1,0448	0,0438	21/02/25	323,24	5,7784
28/02/25	1,0461	0,0451	28/02/25	310,97	5,7397
07/03/25	1,0695	0,0672	07/03/25	507,21	6,2289
14/03/25	1,0884	0,0847	14/03/25	549,35	6,3087
21/03/25	1,0876	0,0840	21/03/25	557,8	6,3240
28/03/25	1,0801	0,0771	28/03/25	427,18	6,0572
04/04/25	1,0906	0,0867	04/04/25	485,76	6,1857
11/04/25	1,1076	0,1022	11/04/25	705,38	6,5587
18/04/25	1,1357	0,1272	18/04/25	542,64	6,2964
25/04/25	1,1414	0,1323	25/04/25	439,86	6,0865
02/05/25	1,1348	0,1265	02/05/25	630,98	6,4473
09/05/25	1,1305	0,1227	09/05/25	539,28	6,2902
16/05/25	1,1164	0,1101	16/05/25	628,01	6,4426
23/05/25	1,1293	0,1216	23/05/25	427,75	6,0585
30/05/25	1,1332	0,1250	30/05/25	348,66	5,8541
06/06/25	1,1413	0,1322	06/06/25	475,15	6,1636
13/06/25	1,1495	0,1393	13/06/25	375,25	5,9276
20/06/25	1,1539	0,1431	20/06/25	398,16	5,9869
27/06/25	1,1641	0,1519	27/06/25	308,43	5,7315
04/07/25	1,1774	0,1633	04/07/25	526,24	6,2658
11/07/25	1,1706	0,1575	11/07/25	372,44	5,9201
18/07/25	1,1632	0,1512	18/07/25	428,38	6,0600
25/07/25	1,1739	0,1603	25/07/25	313,04	5,7463
01/08/25	1,152	0,1415	01/08/25	299,21	5,7011
08/08/25	1,1619	0,1501	08/08/25	331,84	5,8047
15/08/25	1,1669	0,1544	15/08/25	266,8	5,5865
22/08/25	1,1659	0,1535	22/08/25	223,01	5,4072
29/08/25	1,1661	0,1537	29/08/25	345,13	5,8439
05/09/25	1,1684	0,1556	05/09/25	381,62	5,9444
12/09/25	1,1727	0,1593	12/09/25	290,68	5,6722
19/09/25	1,18	0,1655	19/09/25	321,54	5,7731
26/09/25	1,1736	0,1601	26/09/25	364,43	5,8983
03/10/25	1,1726	0,1592	03/10/25	369,61	5,9124
10/10/25	1,1632	0,1512	10/10/25	359,9	5,8858
17/10/25	1,1646	0,1524	17/10/25	389,02	5,9636
24/10/25	1,1624	0,1505	24/10/25	338,07	5,8233
31/10/25	1,1613	0,1495	31/10/25	331,15	5,8026
07/11/25	1,1525	0,1419	07/11/25	296,85	5,6932
14/11/25	1,1601	0,1485	14/11/25	414,57	6,0272
21/11/25	1,1551	0,1442	21/11/25	379,64	5,9392
28/11/25	1,1566	0,1455	28/11/25	278,51	5,6295
05/12/25	1,1635	0,1514	05/12/25	307,6	5,7288
12/12/25	1,168	0,1553	12/12/25	393,15	5,9742
19/12/25	1,1745	0,1608	19/12/25	350,92	5,8606
26/12/25	1,1768	0,1628	26/12/25	319,07	5,7654