Hedging Against Uncertainty: Economic Policy Uncertainty and Household Asset Financing[i]

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Abstract

We examine how economic policy uncertainty (EPU) affects household demand for alternative credit, focusing on credit lotteries, a popular tool among low- and middle-income households in Brazil. Using administrative data and an instrumental-variables design exploiting an exogenous EPU event, we find that a one standard-deviation increase in EPU raises credit lottery participation by 4%, mainly in vehicle financing. Traditional asset financing declines while savings rise, consistent with precautionary behavior and the well-documented tightening of conventional credit during uncertainty. Credit lotteries thus act as a hybrid "saving-and-credit" device, supporting household resilience by enabling vehicle financing as a hedge against economic uncertainty.

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1. Introduction

Uncertainty surrounding economic policies plays a central role in shaping financial and economic behavior. When governments announce new regulations, debate fiscal reforms, or signal shifts in monetary policy, businesses, financial institutions, and households face increased unpredictability regarding future economic conditions. This phenomenon, commonly referred to as Economic Policy Uncertainty (EPU), captures the degree of ambiguity surrounding government actions and policies.

The literature has extensively documented the adverse effects of EPU on economic activity, particularly on credit markets (Berger et al., 2022). Elevated EPU often induces financial institutions to adopt more conservative lending practices, tightening credit terms, reducing loan approvals, and raising interest rates to compensate for increased default risks (Bordo et al., 2016; Lee et al., 2017; D'Mello and Toscano, 2020). On the borrower side, heightened uncertainty discourages credit demand, as businesses and individuals delay investments, financing decisions, and consumption due to concerns over future economic stability (D'Mello and Toscano, 2020; Bloom, 2009; Gulen and Ion, 2016, Hartzmark, 2016, Barker, et al., 2020). These dynamics, however, primarily reflect the behavior of conventional credit markets and borrowers who are well integrated into formal financial systems.

In contrast, the literature on alternative credit channels highlights the crucial role of these credit instruments for financially constrained individuals, who are typically excluded from conventional banking systems due to low credit scores or lack of formal income documentation (Breza and Kinnan, 2021; Besley et al., 1993; Doornik et al., 2024a). These instruments provide an essential financial support by enabling low-income individuals to acquire productive assets and maintain economic resilience during adverse shocks (Banerjee et al., 2015; Breza and Kinnan, 2021). However, despite their importance, the interplay between

EPU and alternative household credit demand remains underexplored, leaving a significant gap in understanding how financially constrained individuals adjust their behavior in response to heightened uncertainty.

In this paper, we aim to address this gap by examining the impact of EPU on participation in Brazilian credit lotteries (*consorcios*), which are widely used for financing assets (such as vehicles, homes, and other assets). They are a unique financial arrangement resembling rotating savings and credit associations (ROSCAs) (Besley et al., 1993; Besley and Coate, 1995). Unlike conventional loans, they operate as pooled financing arrangements, where participants contribute monthly to a collective fund and are randomly selected to receive the financed asset. This structure, which eliminates interest rates and creditworthiness requirements, makes credit lotteries accessible to low- and middle-income individuals who might otherwise lack access to traditional credit. They are administered by financial institutions or specialized finance companies which charge a flat service fee.

Our empirical analysis draws on three complementary data sources. First, we use monthly administrative records on the universe of credit lotteries in Brazil (1999–2024), with new entrants and contract characteristics by administrator and asset segment. Second, we use monthly bank-branch balance sheets to track traditional asset financing and savings. Third, we work with the newspaper-based EPU index (Baker et al., 2016) over 1999–2024. The endogenous relationship between credit access and economic policy uncertainty poses an identification challenge, as movements in EPU are correlated with broader economic conditions. To address this concern, our identification strategy relies on an instrumental-variables design that leverages a time cutoff in a regression-discontinuity framework. Specifically, we use the March 2017 *Weak Flesh* investigation, a nationwide Federal Police probe in the meat-processing industry, as an exogenous shock that induced a sharp and unanticipated jump in EPU without

directly affecting economic fundamentals. This setting allows us to isolate the causal effect of EPU on household outcomes. Macroeconomic policies, including the ongoing interest-rate cuts and the labor reform, remained on track during this period, reinforcing that the shock operated primarily through uncertainty rather than broader macroeconomic changes.

Our results show that higher economic policy uncertainty raises credit-lottery participation by about 4% for each one standard-deviation increase in EPU, with effects concentrated in vehicle financing. In contrast, the same increase in EPU is associated with a decline in traditional asset financing, consistent with the tightening of traditional credit markets documented in the literature (Bordo et al., 2016; D'Mello and Toscano, 2020). Moreover, we document an increase in savings, consistent with established evidence of precautionary saving under heightened uncertainty (Giavazzi and McMahon, 2012; Wang-Ly and Newell, 2024).

These opposite results across traditional and non-traditional credit markets may appear contradictory at first glance, but they can be reconciled by emphasizing the dual nature of credit lotteries. These credit instruments combine features of both savings and credit (Doornik et al., 2024b): households make fixed monthly contributions, disciplining precautionary savings in a structured and predictable way, while retaining the possibility of reversing the asset before the full payment, and repaying the remaining balance over time through scheduled installments. In this sense, credit lotteries operate as commitment savings with an embedded credit-like advance for earlier asset acquisition. Compared with traditional savings, which may lack the immediacy of a tangible benefit, or with traditional credit, which is more expensive and subject to strict screening, credit lotteries offer flexibility and security: flexibility because installments are fixed and predictable and participants preserve the possibility to advance acquisition; security because the main cost is an administrative fee set ex ante and spread

across installments (less sensitive to month-to-month interest-rate fluctuations), contracts are standardized and regulated, and access does not require taking a new bank loan at the time of purchase. These features are particularly attractive during periods of economic uncertainty, as they address immediate financial constraints while maintaining stability in planning and reducing exposure to banks' current lending standards.

Beyond their savings-like dimension, credit lotteries channel resources into durable and productive assets. The increase in participation that we document is largely driven by vehicle financing, which enhances household mobility, improves access to distant labor markets, and can enable self-employment opportunities (Marinescu and Rathelot, 2018), as well as income-generating uses in informal labor markets (Banerjee et al., 2015). Additionally, Doornik et al. (2024a) document long-term benefits of mobility assets obtained through credit lotteries, including higher earnings, greater job stability, and expanded economic opportunities.

In this way, households transform precautionary savings into productive investments, mitigating risk while simultaneously generating income potential. Within this context, households appear to view credit lotteries, particularly those tied to productive assets such as vehicles, as a form of precautionary savings that simultaneously offers potential income-generating opportunities. This behavioral response indicates that credit lotteries operate as a complementary financial instrument within the broader credit ecosystem and help strengthen household resilience under conditions of economic uncertainty. This mechanism is especially salient under heightened uncertainty: the possibility to advance the acquisition of a productive asset while continuing to accumulate and amortize the remaining balance in predictable installments becomes particularly valuable.

Taken together, our findings indicate that when economic policy uncertainty rises, conventional credit decreases, household savings increase, and

participation in credit lotteries expands. Credit lotteries stand out in this adjustment because they operate simultaneously as a precautionary savings instrument and as a way to invest in productive assets. This distinctive dual role helps explain why they expand precisely when conventional credit markets contract and underscores their potential to strengthen household resilience, especially among financially constrained populations, under conditions of economic uncertainty. Viewed through this lens, these adjustments are consistent with a behavioral hedge against uncertainty.

Our analysis also uncovers additional patterns. We find that that the increase in credit lottery participation associated with higher EPU is not undermined by financial fragility: default rates remain stable, indicating that households during uncertain times continue to honor their contracts. This mitigates concerns that enrollment was merely a short-term, reactive decision driven by the increase in EPU. In other words, participants did not disproportionately abandon their contracts (thereby incurring in penalty fees), during periods of heightened uncertainty, which would have made credit lotteries a suboptimal financial choice compared to traditional savings.

This paper advances the literature in several ways. First, heightened levels of EPU are closely associated with changes in the dynamics of both credit supply and demand (Kara and Yook, 2022). The transmission of higher financing costs occurs through channels linked to bank-specific characteristics and exchange rate fluctuations (Bordo et al., 2016; Beckmann and Czudaj, 2017; Lee et al., 2017), ultimately constraining credit supply growth. In this study, we show that while conventional credit demand diminishes during high EPU, demand for asset-backed financing expands, potentially driven by incentives to secure future assets at current costs. This finding highlights that uncertainty does not uniformly suppress credit demand; rather, it reorients demand toward alternative forms of financing that exhibit savings-like features.

Secondly, this study carries relevant policy implications. In credit markets characterized by high borrower heterogeneity, particularly in emerging economies, the allocation of credit is strongly shaped by adverse selection and the asymmetric propagation of borrowing costs (Varela, 2017). Our findings add to the alternative credit literature by showing that low-income households are not passive recipients of credit constraints but instead strategically leverage credit lotteries to finance mobility-related assets, such as vehicles, during periods of heightened uncertainty, thereby using these instruments as a hedge against uncertainty. This behavioral response suggests the recognition by households that mobility assets can improve labor market access and income generation, highlighting the importance of mobility for economic opportunity (Marinescu and Rathelot, 2018; Van Doornik et al., 2024).

Third, credit lotteries function as an alternative financing mechanism that enables vulnerable households to accumulate productive assets and enhance resilience to labor market shocks. This finding complements prior research emphasizing the role of innovative lending mechanisms in overcoming information frictions and expanding access to credit for underserved populations (Morduch and Armendáriz, 2005). While this has clear relevance for emerging markets, where structural credit frictions are more pronounced, the results also speak to developed economies that are increasingly confronted with large inflows of immigrants and the financing challenges faced by new entrants with thin or no credit histories (Lina and Hammarstedt, 2016, Cookson et al., 2025). Thus, by enabling access to asset-backed financing with savings-like features, credit lotteries may represent a useful complement to existing credit institutions, particularly in contexts where traditional mechanisms of borrower screening and collateralization remain limited.

2. Institutional Background

2.1. Credit Lotteries (*Consorcios*)

As discussed in Doornik et al. (2024a), the Brazilian credit lotteries (*consorcios*) "are a financial product in which participants pool funds to save toward the purchase of durable goods". These credit lotteries are less regulated than other credit offerings, which can be only issued by banks, since the administrator has no risk of capital. Hence, administrators can be either banks or other financial institutions (e.g. insurance corporations or a specialized "*consorcio* broker"). These administrators are entitled to an administrative fee that covers the overhead and other expenses related to managing the credit lotteries.

These credit lotteries combine elements of savings and credit (Doornik et al., 2024b). As discussed in the introduction, if participants decide to withdraw from the credit lottery before receiving the good, then they are entitled to receive back their contributions minus a penalty fee. If the participant defaults after receiving the good, then the asset is repossessed, and the individual is entitled to receive the difference between the value of the asset minus what they owe to the administrator.

Each month, a lottery is conducted to select participants who will receive the asset. However, a portion of the assets is reserved for auction, enabling participants to bid a fraction of the asset's total value, with the highest bidders also securing immediate access to the asset. Upon making the down payment and receiving the asset, the bidder's future contributions are adjusted to reflect the remaining balance. This mechanism is particularly attractive in times of heightened economic uncertainty, as it allows participants to access the asset earlier, i.e., prior to being selected through a lottery, thereby enabling them to reap its economic benefits sooner. Another important feature of credit lotteries is that there are very few background checks or screening for applicants (Doornik et al., 2024a). Since risk is minimized due to contract design, and the fact that there is no capital risk for the administrator, almost any person is able to enroll in a credit lottery in Brazil. Hence people with bad credit, with no credit history,

without bank accounts, or without a documented job are able to finance an asset acquisition via credit lotteries.

In March 2017, the month of the Weak Flesh operation, approximately 5.8 million individuals were enrolled in credit lotteries. Prior research suggests that participants in such programs are predominantly low-income individuals with limited access to traditional credit market. For example, Doornik et al. (2024a) report that, in their sample, only 37% of credit lottery participants held formal employment, and merely 15% had completed higher education. Furthermore, the median monthly income among participants was relatively low, at approximately 1,400 BRL (equivalent to 447 USD[2]).

Moreover, Cernev et al. (2024) provides evidence that, during the sampling period, about one-third of the poorest individuals in Brazil did not have access to a bank account and around two-thirds did not have access to formal lines of credit (excluding *consorcios*). Thus, credit lotteries are a way for this large share of the population to be able to finance productive assets (such as vehicles) with lower fees than banks would charge them, if they would be able to access those lines of credits in the first place.

Figure A5 in the Appendix compares the three main mechanisms through which individuals in Brazil can acquire a vehicle: personal savings, traditional financing, and credit lotteries. As illustrated, credit lotteries enable individuals to obtain the asset at a lower overall cost, approximately 20% less than traditional financing in the example, while also offering an expected asset delivery time earlier than pure savings (25 versus 33 months). Thus, credit lotteries represent an alternative credit instrument that allows households to access productive assets sooner than traditional savings would permit, while incurring substantially lower financing costs than conventional credit arrangements.

[2] The exchange rate in July 31st, 2017 was 3.13 BRL = 1 USD

2.2. Weak Flesh Investigation

Brazil is one of the largest beef and veal producers in the World. According to the Livestock and Poultry: World Markets and Trade 2017 report, half of the 62.6 million tons of global production forecasted for 2018 was from United States and Brazil. Additionally, two firms account for the majority of these overall exports: JBS S.A. and BRF S.A. These firms are not only among the biggest companies in Brazil, but also feature on lists of the largest corporations in the world (Dahan and Norden, 2018).

On March 17th 2017, the Brazilian Federal Police started the "Weak Flesh" investigative operation (*Operação Carne Fraca*), a large-scale investigation into corruption and food safety violations in Brazil's meatpacking industry[3]. The investigation revealed that top meat producers, including JBS S.A. and BRF S.A., were involved in illicit activities such as bribing health inspectors and politicians to overlook or approve the sale of spoiled or contaminated meat products. Companies were accused of adulterating meat with chemicals to mask spoilage or extending the expiration dates of products.

These claims by the investigators affected both the domestic market and international trade relations, leading to temporary import bans on Brazilian meat by key export markets such as the European Union, China, and the United States. Additionally, the Minister of Justice at that time was implicated in the scandal, with claims that he had received bribes from these companies. These revelations eventually led to an impeachment trial of President Michel Temer, which was unsuccessful.

While the Weak Flesh operation increased economic policy uncertainty (EPU), its direct impact on actual economic policy was minimal. Key policy measures, such

[3] Grilling the world's biggest meat producer: https://www.nytimes.com/2023/09/28/climate/grilling-the-worlds-biggest-meat-producer.html

as the spending cap legislation, had already been enacted, and the labor reform was passed shortly after the investigation, in July 2017. Additionally, the Central Bank continued lowering interest rates during this period, and although the pension reform was delayed, it was eventually approved in 2019.

3. Data

3.1. Data Sources

The data on credit lotteries is collected from the Brazilian Central Bank ConsorcioBD dataset for the period between May 1999 until July 2024. This dataset includes monthly information on all active credit lotteries in Brazil, grouped by administrator and by type of asset being financed: houses, vehicles, and other goods. Information available includes the number of new participants enrolled, the number of participants in default (i.e., with at least one past-due payment), and the administrative fee charged. The full sample contains 117,790 observations at the administrator-type-month level in the period between May 1999 and July 2024.

As a measure of economic policy uncertainty (EPU), we use the newspaper-based index developed by Baker et al (2016)[4]. For Brazil, the index is constructed from text archives of the newspaper *Folha de São Paulo* starting in 1991. Each month, the share of articles containing uncertainty-related terms is computed relative to the total number of articles[5].

To measure traditional bank lending and savings, we use the ESTBAN dataset maintained by the Central Bank of Brazil. This dataset provides monthly balance

[4] The Brazilian EPU series is available at http://www.policyuncertainty.com.

[5] They count the number of articles containing the terms "incerto" or "incerteza", "econômico" or "economia", and one or more of the following policy-relevant terms: "regulação", "deficit", "orçamento", "imposto", "banco central", "alvorada", "planalto", "congresso", "senado", "câmara dos deputados", "legislação", "lei", "tarifa".

sheet information at the bank-branch–level for all financial institutions operating in all 5,570 municipalities in Brazil. Available variables include, among others, outstanding credit, deposits and interest rates.

Hence, we collect information on the ESTBAN dataset from November 2016 to June 2017, which includes 78,912 branch-month observations for asset financing, and 74,680 branch-month observations for savings.

3.2. Summary Statistics

Table 1 reports descriptive statistics for the main variables used in the analysis of credit lotteries: the natural logarithm of new participants, the administrative fee, the default rate, and the share of credit lotteries linked to vehicles, housing, and other goods. The table is constructed from four samples. The first corresponds to the full sample period (1999–2024), while the remaining three are subsamples defined by windows of 2 months ([-2,+1]), 4 months ([-3,+2]), and 6 months ([-4,+3]) around the Weak Flesh Operation in March 2017 (month 0). For each sample, we report means and standard deviations separately for the pre- and post-event periods. The table also shows that the distribution of variables in the pre-shock periods is broadly similar across the different bandwidth choices, which supports the comparability of the samples.

[Insert Table 1 Here]

Figure 1 plots the Brazilian EPU index from January 1997 to May 2024, highlighting major events associated with spikes in economic policy uncertainty. These include: the end of Brazil's currency peg to the US Dollar (1999), the general strikes and invasions of farmlands by poorer farmers (2000), the pension reforms (2003), the subprime crisis (2008), the impeachment trial and conviction of President Dilma Rousseff (2015-2016), the Weak Flesh investigative operation

(2017), and the COVID-19 pandemic (2020). The Weak Flesh operation stands out as one of the sharpest peaks in the series.

[Insert Figure 1 Here]

Figure 2 zooms in on the twelve months before and after the March 2017 Weak Flesh operation, showing a pronounced discontinuity in the EPU index at the event date. We overlay a fitted polynomial line to smooth short-term fluctuations, making the abrupt jump at the cutoff even more apparent. This local evidence illustrates that the investigation generated an immediate and sizable increase in perceived economic uncertainty.

[Insert Figure 2 Here]

4. Empirical Analysis

The empirical analysis is organized as follows. In section 4.1, we present the identification strategy to estimate the effects of economic policy uncertainty on credit-lottery participation. In section 4.2, we report the main results. Section 4.3 turns to analyze the relationship between EPU and traditional asset financing and savings. Section 4.4 discusses mechanisms, first, credit lotteries as a savings-and-credit instrument (4.4.1), then the concentration in productive assets, especially vehicles (4.4.2), followed by default rates(4.4.3) and administrative fees (4.4.4).

4.1. Identification Strategy

Our aim is to identify whether and how economic policy uncertainty (EPU) affects demand for credit lotteries. As a preliminary exploration, we estimate the following linear relation over the full sample (1999–2024):

$$\ln(New\ Participants)_{i,s,t} = \beta \cdot EPU_t + \theta_i + \tau_s + \varepsilon_{i,s,t} \quad (1)$$

where i indexes administrators, s denotes the asset segment (vehicles, housing, other goods), and t is month. We include administrator fixed effects (θ_i) and segment fixed effects (τ_s) to control for unobserved heterogeneity. Standard errors are clustered at the administrator-month level. Throughout the paper, EPU_t denotes the monthly EPU index standardized to have zero mean and unit standard deviation over 1999–2024. Hence, a one-unit change in EPU_t corresponds to a one standard-deviation increase in uncertainty, and our coefficient of interest, β, is interpreted as the percent change in new entrants associated with such a change.

The OLS estimate offers an extended-horizon view of the relationship between uncertainty and participation, but it is purely correlational. Movements in EPU may track other macroeconomic forces that also affect credit-lottery demand. We therefore treat this specification as an informative benchmark. To assess causality, our identification strategy relies on an instrumental-variables design that leverages a time cutoff in a regression-discontinuity framework. Specifically, we exploit the March 2017 launch of the *Weak Flesh* federal investigation in Brazil as an exogenous event that triggered a sudden and substantial spike in economic policy uncertainty (EPU), as documented in Figure 1. The timing and abruptness of this operation makes it suitable as a discontinuity cutoff in time, generating local exogenous variation in perceived economic uncertainty.

[Insert Figure 1 Here]

Our identification strategy proceeds in two stages. First, we use the post-event indicator as an instrument for EPU in a pre vs. post specification around the March 2017 cutoff. This yields local variation in the monthly EPU index, enabling us to isolate the component of EPU changes driven purely by the unexpected shock. In the second stage, we estimate the causal effect of this instrumented EPU on credit lottery participation.

We denote the treatment period as the months following March 2017. To ensure comparability, we symmetrically balance the sample with an equal number of months before and after the shock. Specifically, as presented in section 3.2, we use bandwidths of 2 months ([-2,+1]), 4 months ([-3,+2]), and 6 months ([-4,+3]), following best practices in regression discontinuity in time (Hausman and Rapson, 2018). The use of multiple bandwidth selections mitigates the risk of spurious results arising from potential endogeneity between the pre- and post-treatment samples. Our 2SLS specification is presented below:

First Stage (RDiT model):

$$\text{EPU}_t = \varphi \cdot Post_{t \geq c} + \gamma \cdot (t - c) + \delta \cdot Post_{t \geq c} \cdot (t - c) + \theta_i + \tau_s + \varepsilon_{i,s,t} \quad (2)$$

Second Stage (IV model):

$$\ln(New\ Participants)_{i,s,t} = \beta \cdot \widehat{EPU_t} + \gamma \cdot (t - c) + \delta \cdot Post_{t \geq c} \cdot (t - c) + \theta_i + \tau_s + \varepsilon_{i,s,t} \quad (3)$$

where $\widehat{EPU_t}$ is the instrumented value of EPU via a RDiT approach, c indicates the cutoff point of March 2017, $Post_{t \geq c}$ is a dummy equal to 1 for months from March 2017 on and 0 otherwise, θ_i and τ_s represent fixed effects for, respectively, the administrator and the segment of the *consorcio* (e.g. different types of vehicles, housing, and other assets), and errors are clustered at the administrator-month level. The parameter γ accounts for the underlying time trend, while δ captures the shift in the trend following the exogenous shock. They both act as time trend controls, since we cannot use time fixed effects in our model, due to perfect collinearity with the variable $Post_{t \geq c}$. The primary coefficient of interest in our analysis is β, which captures the causal effect of exogenous increases in economic policy uncertainty, as instrumented by the March 2017 *Weak Flesh* shock, on credit lottery participation. This interpretation follows the standard logic of instrumental variables: the shock provides an exogenous source of variation in EPU, allowing us to recover its impact on household credit decisions. As with any IV approach, identification comes from the variation induced by the

instrument, in this case, the abrupt spike in EPU triggered by the *Weak Flesh* investigation.

We find a strong first-stage relationship between the post-shock indicator and the monthly EPU index (see Table 3). The coefficient on $Post_{t \geq c}$ is large and statistically significant across all bandwidths. Identification diagnostics indicate a strong instrument and no weak-instrument concerns.

Regarding the exclusion restriction, our identification strategy relies on the assumption that the "Weak Flesh" operation affected credit lottery participation solely through its impact on perceived EPU. This assumption is plausible given the sudden and exogeneous nature of the shock, which was unrelated to planned economic policy changes and did not coincide with shifts in macroeconomic fundamentals or household income policies.

To reinforce this assumption, we examine the stability of several macroeconomic indicators around the March 2017 cutoff. These include the risk-free Selic rate (from Central Bank of Brazil), consumer inflation measured by the IPCA index (Índice de Preços ao Consumidor Amplo, from IBGE), formal employment from CAGED (Cadastro Geral de Empregados e Desempregados, Ministry of Labor), and economic activity via the IBC-Br index (Índice de Atividade Econômica do Banco Central). Figures A1-A4 in the appendix show the time series for these indicators from January 2016 through December 2018, revealing no notable breaks in level or trend around the cutoff. This evidence supports the claim that the policy uncertainty channel is the exclusive pathway through which the shock affects credit behavior.

This paper contributes to a literature that leverages Regression Discontinuity in Time (RDiT) frameworks to estimate causal effects of unexpected, time-specific shocks (e.g. Chen et al. (2020), Galiani et al. (2005), Dell et al. (2014)). For instance, Chen et al. (2020) use the sudden release of an environmental documentary in

China to examine public responses to information shocks, applying an RDiT approach centered on media exposure. While our design shares with them the emphasis on an abrupt and plausibly exogenous temporal event, we go a step further by using the RDiT-generated variation as an instrument for a continuous endogenous regressor, economic policy uncertainty (EPU), within a two-stage least squares (2SLS) framework. In doing so, our approach aligns with the identification logic proposed by Hausman and Rapson (2018), adapting local discontinuities in time to instrument for latent drivers of economic behavior.

By isolating a plausibly exogenous component of EPU and leveraging a sharp temporal discontinuity, we provide a credible identification strategy to estimate the causal impact of policy uncertainty on household credit demand.

4.2. EPU and Credit Lotteries Participation

We begin by estimating the baseline OLS specification in equation (1), where the dependent variable is the log number of new participants in credit lotteries and the regressor of interest is the standardized EPU measure. Table 2 reports the results of the estimation for three different specifications. Columns (1) to (3) progressively add administrator and segment fixed effects. Across all three specifications the relationship between EPU and credit-lottery participation is estimated to be positive and highly significant, with magnitudes that are very similar once both sets of fixed effects are included. Column (3) shows that a one standard-deviation increase in EPU is associated with about a 2.8% rise in the number of new entrants to credit lotteries. This OLS estimate offers an extended-horizon snapshot of the relationship between uncertainty and participation, suggesting an increased demand for this type of credit, particularly among low-income individuals, in periods of high economic policy uncertainty. As discussed in the section 4.1, because of endogeneity concerns, this result should be viewed as descriptive and correlational.

[Insert Table 2 Here]

To assess the causality, we next implement the instrumental variables strategy described by equations (2) and (3), in which EPU is instrumented using the exogenous shift around the 2017 *Weak Flesh* shock. Following section 4.1 and standard practice in regression discontinuity in time designs, we estimate the model in short, symmetric windows around the cutoff (March 2017 as month 0) to hold other forces roughly constant. Table 3 reports the results for three bandwidths: the 4-, 6-, and 8-month windows ([-2,+1], [-3,+2], [-4,+3]).

[Insert Table 3 Here]

As discussed in section 4.1, we find a strong and highly significant first-stage relationship between the post-shock indicator and the monthly EPU index across all bandwidths. In the second stage, coefficients are very similar across windows: a one standard-deviation increase in uncertainty raises the number of new credit-lottery entrants by approximately 4%. The sign and magnitude are in line with the OLS correlational results and indicate higher demand for this non-traditional form of credit when economic policy uncertainty is elevated. Results are stable across varying bandwidth choices, underscoring their robustness. Moreover, Table A1 (in the Appendix) presents placebo estimations that shift the cutoff back by 1, 6, and 10 years within the [-3,+2] window. We find no significant effects, which supports the identification by ruling out spurious discontinuities.

We also emphasize that our estimates are not subject to the Jiang critique (Jiang, 2017), which cautions against the overstatement of causal effects in instrumental variable settings. The IV estimates, using the *Weak Flesh* investigation as an instrument for changes in EPU, indicate an effect of approximately 4%, which closely aligns with the correlational results presented in Table 2, where the estimated effect is around 3%. This consistency suggests that our IV strategy does not appear to overly overstate the underlying relationship between EPU and

credit lotteries undertaking and lends further credibility to the causal interpretation of our findings.

Figure 3 plots the log of the number of new participants in credit lotteries from 12 months before to 11 months after the *Weak Flesh* shock. We overlay a polynomial fit to highlight the cutoff. The figure visually corroborates the timing discontinuity that underlies our IV strategy: the number of new participants jump sharply right after month 0, remain elevated for roughly five months, and revert toward pre-shock levels within about a year, consistent with the IV estimates in Table 3.

[Insert Figure 3 Here]

In sum, our estimates indicate that higher economic policy uncertainty raises participation in credit lotteries. At first glance, this positive response contrasts with the well-documented contraction of bank credit in times of uncertainty (e.g., Bordo et al., 2016; Lee et al., 2017; D'Mello and Toscano, 2020). To set up the mechanism analysis, we first apply the same instrumental variables design to standard banking outcomes in lending and savings, using administrative banking data. We do this in section 4.3. This step lets us verify whether the well-known patterns in the literature also hold in our setting. Then, in section 4.4 we reconcile the banking and credit lottery evidence and develop the mechanism linking them.

4.3. Traditional Asset Financing and Savings

In this section we apply the same instrumental variables design to standard banking outcomes in lending and savings, using data from the Brazilian Central Bank's ESTBAN system. We start with bank lending, focusing on loans destined for asset financing (e.g., vehicles, housing, and other asset loans). Specifically, we re-estimate equations (2) and (3) using as the dependent variable the month-over-

month change in outstanding balance of asset financing at the bank–municipality level:

$\Delta(Asset\ Financing)_{i,m,t}$ as $\frac{Total\ Asset\ Financing_{i,m,t} - Total\ Asset\ Financing_{i,m.t-1}}{(Total\ Asset\ Financing_{i,m,t-1}+1)}$.

Here, *i* indexes banks, *m* indexes municipalities, and *t* denotes months. We add 1 to the denominator to avoid division by zero in months when a bank reports zero asset financing in *t-1*. We include bank and municipality fixed effects (rather than administrator and segment fixed effects) and cluster standard errors at the bank-municipality level. Summary statistics for this variable are presented in the Appendix at Table A2 and Table 4 shows the results.

[Insert Table 4 Here]

Our findings are in line with the existing literature: across specifications, a one standard deviation increase in EPU reduces traditional asset financing by about 0.1%. Because the 2017 *Weak Flesh* investigation generated an EPU shock of more than five standard deviations above the historical mean (first stage, Table 3), the implied effect is economically meaningful: over a 0.5% drop in asset financing attributable to the rise in policy uncertainty. Figure 4 visually corroborates this pattern, showing a discrete decline at the cutoff.

[Insert Figure 4 Here]

We next turn to bank savings. We re-estimate equations (2) and (3), replacing the outcome with the month-over-month change in savings at the bank–municipality level, defined analogously to asset financing as:

$\Delta(Savings)_{i,m,t} = \frac{Total\ Savings_{i,m,t} - Total\ Savings_{i,m,t-1}}{(Total\ Savings_{i,m,t-1}+1)}$.

[Insert Table 5 Here]

Summary statistics for this variable are presented in the Appendix at Table A2 and Table 5 reports the results. We find that with a one standard deviation increase in EPU raises bank savings by 0.1% to 0.3%. The effect is statistically significant in the 6- and 8-month windows and close to zero in the shortest window. We place limited weight on the latter, as the timing of the shock relative to typical income receipt in Brazil likely constrained individuals' ability to adjust their savings behavior. In Brazil, most workers receive their salaries up to the fifth business day of the month, implying that savings adjustments would predominantly occur after the initial shock (i.e., at t = 1 or later). Consequently, the longer event windows ([-3, +2] and [-4, +3]) provide a more accurate measure of the impact of EPU on savings, as they encompass the period in which individuals could realistically readjust their savings behavior. Overall, the positive response of savings is consistent with precautionary behavior during uncertainty and is in line with the established evidence in the literature.

Overall, the results showing that higher policy uncertainty contracts traditional bank lending for asset purchases and raises savings replicate the well-known response of conventional credit and are consistent with precautionary saving during uncertainty, lending further credibility to our setting. With this benchmark in place, we now turn to reconciling why credit-lottery participation rises precisely when bank lending falls and savings increase.

4.4. Mechanism Discussion

We reconcile the banking and credit-lottery results by showing that credit lotteries are not a one-for-one replacement for bank lending. Instead, they combine commitment saving with the possibility to bring forward acquisition and amortize the balance in predictable installments. We organize the evidence in four parts. First, Section 4.4.1 documents the savings-like behavior of credit lotteries. Second, Section 4.4.2 shows that the expansion in participation channels resources into productive assets, especially vehicles, linking the response to

mobility and income potential. Third, Section 4.4.3 tests for post-enrollment fragility and finds no rise in default. Finally, Section 4.4.4 asks whether administrators adjusted pricing and finds no systematic increase in fees. Taken together, the evidence indicates that credit lotteries operate alongside bank lending and help households manage uncertainty, as a hedge against uncertainty.

4.4.1. Credit Lotteries as a savings-and-credit instrument

Credit lotteries are hybrid contracts that combine features of savings and credit (Doornik et al., 2024b). On the credit side, participants can receive the good prior to full payment, amortizing the remaining balance in predictable installments. On the saving side, households make fixed monthly contributions that discipline precautionary saving and can be withdrawn (net of a penalty); charges are typically administrative fees rather than interest, which improves cost predictability and reduces sensitivity to short-run lending-rate fluctuations. Because access does not require taking a new bank loan at the time of purchase, these contracts are less exposed to contemporaneous bank-credit conditions, especially valuable under uncertainty.

Empirically, the pattern we document is consistent with this savings-like interpretation. In Section 4.3 we showed that higher EPU is associated with lower traditional bank lending for asset purchases and higher bank savings. Credit-lottery participation rises in the same episodes, aligning with established evidence that increases in uncertainty raise precautionary savings (Giavazzi and McMahon, 2012; Wang-Ly and Newell, 2024). In other words, households appear to treat credit lotteries primarily as disciplined savings with an embedded option to advance acquisition, rather than as a close substitute for standard loans.

We use this interpretation to organize the remaining analysis. In Section 4.4.2, we show that the additional participation channels resources into productive assets,

with a central role for vehicles, which enhance mobility and income potential. In Section 4.4.3, we examine fees and defaults, ruling out deteriorating borrower quality or price changes as alternative explanations for the increase in participation.

4.4.2. Credit Lotteries financing productive assets

The findings from the previous section naturally raise an important question: why are individuals participating in credit lotteries in this period of heightened uncertainty? Unlike traditional savings, where underlying intentions are typically unobservable, credit lotteries offer a unique advantage: participants explicitly reveal their intended use of funds by selecting a specific category (e.g., vehicles, housing, electronics). This allows us to distinguish whether individuals are primarily using credit lotteries to finance productive assets or to fund consumption. We examine this distinction in greater detail below.

Using the same IV design as in Section 4.2, we re-estimate the model separately for vehicle lotteries and for lotteries aimed at homes and other assets. Table 6 reports estimates across the 4-, 6-, and 8-month windows.

[Insert Table 6 Here]

The results indicate that the effect is concentrated in vehicle lotteries. A one-standard-deviation increase in EPU raises new entrants into vehicle lotteries by about 3.4%–5.7% across bandwidths. In contrast, estimates for housing and other assets are small and imprecise: a positive estimate in the shortest window does not persist once we consider the 6- and 8-month samples. This pattern mirrors the approximately 4% aggregate response documented in Section 4.2 and indicates that the overall increase in credit-lottery participation is driven primarily by vehicle financing.

This concentration is consistent with the idea that credit lotteries channel precautionary savings into productive assets, most notably vehicles, which

expand mobility. Economic literature highlights the positive outcomes of enhanced mobility for access to jobs and self-employment (Marinescu and Rathelot, 2018; Heise and Porzio, 2022; Ferreira et al., 2025; Banerjee et al., 2015; Doornik et al., 2024a). Doornik et al. (2024a) show that receiving a vehicle through a credit lottery increases participants' wealth by raising both wages and labor market participation. Hence, households may be especially inclined to finance vehicles as a way to expand economic opportunities under uncertainty. Thus, the prospect of obtaining a vehicle during periods of heightened economic uncertainty may serve as a hedge against future risks that individuals anticipate following an EPU shock.

Overall, these results show that the EPU-induced rise in credit-lottery participation reallocates toward vehicle acquisition, an asset repeatedly shown to enhance labor market outcomes, and suggests that enrollment is a targeted response to anticipated economic instability. In this sense, the observed concentration in vehicle contracts aligns with the view that households seek resilience in uncertain times by securing assets that increase earnings and mobility, helping stabilize income and expand opportunity.

4.4.3. Default

As our findings demonstrate, individuals are more likely to enroll in credit lotteries during periods of elevated economic policy uncertainty, a pattern that mirrors precautionary savings behavior typically observed during times of heightened volatility (Giavazzi and McMahon, 2012; Wang-Ly and Newell, 2024). Notably, this increased enrollment is concentrated in vehicle lotteries, consistent with the view that individuals are seeking productive assets that can improve future financial outcomes as a hedge against uncertainty (Doornik et al., 2024a). However, it is important to acknowledge a potential limitation: since our primary outcome variable captures enrollment rather than completion, it is possible that individuals enroll in credit lotteries during uncertain periods but

subsequently discontinue payments once EPU regresses to the mean. In such cases, participants may incur penalty fees without receiving the asset, implying that enrollment could be a suboptimal financial decision compared to traditional savings.

In order to evaluate whether the surge in new participants during periods of elevated EPU led to increased default once uncertainty subsided, we re-estimate our main 2SLS model using the default rate (measured as the proportion of participants late on at least one payment) as the dependent variable. Given that EPU levels returned to their pre-shock baseline in the subsequent months following the *Weak Flesh* investigation, this specification captures the effect of subsiding policy uncertainty on participant default behavior. Since the increase in new entrants was concentrated on credit lotteries for vehicles, we again divide the sample into two groups (vehicle lotteries vs. all others) to test whether default rates rose disproportionately in the segment that experienced the largest influx. The results are reported in Table 7.

[Insert Table 7 Here]

We find no significant increase in default rates (across both sets of specifications) during the months in which EPU levels reverted to their pre-shock baseline. Rather, we find a small reduction in default rates, which is not consistently significant across all models. Thus, there is no evidence to suggest that individuals enrolled impulsively in credit lotteries and subsequently abandoned them as uncertainty diminished, which would be suboptimal when compared to traditional savings. Instead, the results indicate a sustained financial commitment, at least in the short term, consistent with the interpretation that participants viewed vehicle credit lotteries as a strategic investment in financial resilience rather than as a short-term reaction to uncertainty.

4.4.4. Administrative Fees

Finally, we investigate whether credit lottery administrators responded strategically to the surge in new participants by increasing administrative fees, as the literature shows that similar events have triggered increased fees for microloans (Cheng et al., 2022). If administrators strategically increased fees during periods of increased demands, then participants would be worse off by enrolling in credit lotteries in more uncertain periods. In order to assess this relationship, we re-estimate our main 2SLS model using the administrative fee, defined as a percentage of the monthly installment, as the dependent variable. This approach allows us to test whether heightened EPU, and the resulting increase in demand, translated into higher pricing by administrators. The regression results are presented in Table 8.

[Insert Table 8 Here]

We find a modest short-term increase in administrative fees (approximately 2 basis points for each one standard deviation rise in EPU) immediately following the shock. However, this effect does not persist in the broader event windows ([-3, +2] and [-4, +3]). Therefore, we find no consistent evidence that credit lottery administrators systematically raised fees in response to increased demand during periods of heightened economic policy uncertainty.

5. Conclusions

In this paper, we employ a series of instrumental variable (IV) estimations, using the *Weak Flesh* investigative operation as an exogenous shock, to examine the effects of heightened economic policy uncertainty (EPU) on asset financing decisions. Our findings indicate that rising uncertainty reduces traditional asset financing activity while simultaneously increasing participation in credit lotteries, particularly those used to finance vehicles. We reconcile this seemingly contradictory pattern by highlighting the dual nature of credit lotteries, which combine features of both credit and savings. During periods of uncertainty,

individuals appear to treat credit lotteries, especially for productive assets like vehicles, as a form of precautionary savings that provides income-generating potential. This behavioral response suggests that credit lotteries may serve as an alternative financial tool to build resilience in the face of economic instability.

This underscores not only the role that alternative credit mechanisms, such as credit lotteries, can play in broadening access to financing during periods of heightened economic policy uncertainty, but also the importance individuals place on personal mobility as a strategy for economic resilience. In the face of institutional volatility and constrained access to traditional credit markets, individuals appear to turn to alternative credit instruments, such as credit lotteries. The preference for vehicle credit lotteries suggests that participants are not merely seeking to preserve liquidity, but are actively investing in assets that can expand their labor market opportunities and income potential (Doornik et al., 2024a), as a hedge against uncertainty. This behavior highlights how, in uncertain macroeconomic environments, access to productive assets, particularly those that enhance mobility, can serve as a crucial buffer against economic shocks, reinforcing the need for inclusive financial instruments that align with the needs and constraints of lower-income populations.

Our findings carry important policy implications. First, they suggest that governments could promote alternative credit sources during periods of heightened economic policy uncertainty, particularly as substitutes for traditional credit options. Furthermore, our results align with a large body of literature demonstrating the positive impact of personal mobility (Marinescu and Rathelot, 2018; Heise and Porzio, 2022; Ferreira et al., 2025; Doornik et al., 2024a). What we add in this paper is the evidence that individuals recognize these benefits: in times of increased uncertainty, they engage in "savings and credit" contracts specifically to finance vehicle purchases. Thus, enhancing individual

mobility may significantly improve economic resilience and opportunities during volatile periods.

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Tables

Table 1. Descriptive Statistics – Credit Lotteries

Sample	All	(-2,+1)		(-3,+2)		(-4,+3)	
	Means of Variables (Standard Deviation)						
	All	Pre	Post	Pre	Post	Pre	Post
Ln(New Participants)	3.838	4.024	4.142	4.046	4.180	4.064	4.195
	(2.007)	(2.016)	(2.046)	(2.002)	(2.028)	(2.010)	(2.031)
Administrative Fee (%)	14.783	16.208	16.208	16.228	16.277	16.210	16.275
	(4.564)	(4.601)	(4.727)	(4.557)	(4.625)	(4.585)	(4.618)
Default Rate	0.167	0.199	0.193	0.195	0.189	0.195	0.189
	(0.123)	(0.113)	(0.110)	(0.110)	(0.108)	(0.109)	(0.111)
Share of Vehicles	0.735	0.690	0.682	0.689	0.680	0.685	0.682
	(0.441)	(0.463)	(0.466)	(0.463)	(0.467)	(0.465)	(0.466)
Share of Housing	0.170	0.199	0.195	0.202	0.198	0.204	0.197
	(0.375)	(0.399)	(0.397)	(0.403)	(0.399)	(0.403)	(0.398)
Share of Other Assets	0.095	0.111	0.123	0.109	0.122	0.111	0.121
	(0.293)	(0.350)	(0.328)	(0.311)	(0.327)	(0.314)	(0.326)

Notes: This table reports means and standard deviations (in parentheses) for the main variables of credit lotteries: the natural logarithm of new clients, administrative fee, default rate, and the share of contracts linked to vehicles, housing, and other assets. The first column corresponds to the full sample period (1999–2024). The remaining columns correspond to windows of 2 months ([-2,+1]), 4 months ([-3,+2]), and 6 months ([-4,+3]) around the Weak Flesh Operation in March 2017 (month 0). For each window, statistics are reported separately for the pre- and post-event periods.

Table 2. We provide results from OLS regressions using the ln(New Participants) as dependent variable. Each observation is one Administrator-level observation in a given month that offers credit lotteries for a specific segment (houses, vehicles, and other). The variable EPU is the standardized value of the Economic Policy Uncertainty for that month. We use Administrator-level and Segment fixed effects when noted, and we cluster the standard errors at the monthly level for each administrator. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

EPU	0.200***	0.216***	0.030***
	(0.008)	(0.008)	(0.005)
Observations	117,790	117,789	117,789
R^2	0.01	0.02	0.47
Administrator FE	N	N	Y
Segment FE	N	Y	Y
Month x Administrator Clustered SE	Y	Y	Y

Table 3. We provide results from 2SLS regressions using the ln(New Participants) as dependent variable. Each observation is one Administrator-level observation in a given month that offers credit lotteries for a specific segment (homes, vehicles, and other). The variable Post assumes the value of one from March 2017 (date of the "Weak Flesh" operation of the Federal Police) onwards, and 0 beforehand. The variable EPU is the standardized value of the Economic Policy Uncertainty Index value, instrumentalized by the "Weak Flesh" Federal Police operation. In the first model we use 4 months of data (-2 to +1), in the second we use 6 months (-3 to +2), and finally we use 8 months in the third model (-4 to +3). Row labeled "First Stage" show the first level results of the Post dummy on EPU. We use Administrator-level and Segment fixed effects and we cluster the standard errors at the Year-Month level for each administrator. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

EPU	0.041***	0.043**	0.051***
	(0.013)	(0.018)	(0.016)
First Stage	3.590***	3.912***	3.686***
	(0.017)	(0.041)	(0.029)
KP rk LM-stat	200.77***	313.64***	374.34***
AR Wald F-stat	10.16***	5.51**	9.64***
Observations	1,234	1,853	2,466
Administrator FE	Y	Y	Y
Segment FE	Y	Y	Y
Time Trend Controls	Y	Y	Y
Month x Administrator Clustered SE	Y	Y	Y
Sample	4 months	6 months	8 months

Table 4. We provide results from 2SLS regressions using the percentage change in the stock of asset financing as dependent variable, winsorized at the 5th and 95th percentiles. Each observation is one Bank branch-level observation in a given month in a given municipality. The variable EPU is the standardized value of the Economic Policy Uncertainty Index value, instrumentalized by the "Weak Flesh" Federal Police operation. In the first model we use 4 months of data (-2 to +1), in the second we use 6 months (-3 to +2), and finally we use 8 months in the third model (-4 to +3). We omit first level results, since they are the same as those in Table 3. We use Bank-level and Municipality fixed effects and we cluster the standard errors at the Bank-Municipality level. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

EPU	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)
Observations	39,456	59,184	78,912
Bank FE	Y	Y	Y
Municipality FE	Y	Y	Y
Time Trend Controls	N	Y	Y
Bank x Municipality Clustered SE	Y	Y	Y
Sample	4 months	6 months	8 months

Table 5. We provide results from 2SLS regressions using the percentage change in the stock of individual savings as dependent variable, winsorized at the 5th and 95th percentiles. Each observation is one Bank branch-level observation in a given month in a given municipality. The variable EPU is the standardized value of the Economic Policy Uncertainty Index value, instrumentalized by the "Weak Flesh" Federal Police operation. In the first model we use 4 months of data (-2 to +1), in the second we use 6 months (-3 to +2), and finally we use 8 months in the third model (-4 to +3). We omit first level results, since they are the same as those in Table 3. We use Bank-level and Municipality fixed effects and we cluster the standard errors at the Bank-Municipality level. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

EPU	-0.000	0.003***	0.001***
	(0.000)	(0.000)	(0.000)
Observations	37,340	56,010	74,680
Bank FE	Y	Y	Y
Municipality FE	Y	Y	Y
Time Trend Controls	N	Y	Y
Bank x Municipality Clustered SE	Y	Y	Y
Sample	4 months	6 months	8 months

Table 6. We provide results from 2SLS regressions using the ln(New Participants) as dependent variable. Each observation is one Administrator-level observation in a given month that offers credit lotteries for a specific segment (homes, vehicles, and other). The variable EPU is the standardized value of the Economic Policy Uncertainty Index value, instrumentalized by the "Weak Flesh" Federal Police operation. In the first model we use 4 months of data (-2 to +1), in the second we use 6 months (-3 to +2), and finally we use 8 months in the third model (-4 to +3). Columns labeled "Vehicles" show the results for vehicle credit lotteries, while the "Homes and Other Assets" show the results for all other credit lotteries. We use Administrator-level and Segment fixed effects and we cluster the standard errors at the Year-Month level for each administrator. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

	Vehicles			Homes and Other Assets		
EPU	0.034**	0.050***	0.057***	0.044**	0.018	0.024
	(0.014)	(0.019)	(0.018)	(0.021)	(0.031)	(0.029)
Observations	845	1,268	1,685	387	583	780
Administrator FE	Y	Y	Y	Y	Y	Y
Segment FE	Y	Y	Y	Y	Y	Y
Time Trend Controls	N	Y	Y	N	Y	Y
Month x Administrator Clustered SE	Y	Y	Y	Y	Y	Y
Sample	4 months	6 months	8 months	4 months	6 months	8 months

Table 7. We provide results from 2SLS regressions using the Default level as dependent variable. Each observation is one Administrator-level observation in a given month that offers credit lotteries for a specific segment (homes, vehicles, and other). The variable EPU is the standardized value of the Economic Policy Uncertainty Index value, instrumentalized by the "Weak Flesh" Federal Police operation. In the first model we use 4 months of data (-2 to +1), in the second we use 6 months (-3 to +2), and finally we use 8 months in the third model (-4 to +3). Columns labeled "Vehicles" show the results for vehicle credit lotteries, while the "Homes and Other Assets" show the results for all other credit lotteries. We use Administrator-level and Segment fixed effects and we cluster the standard errors at the Year-Month level for each administrator. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

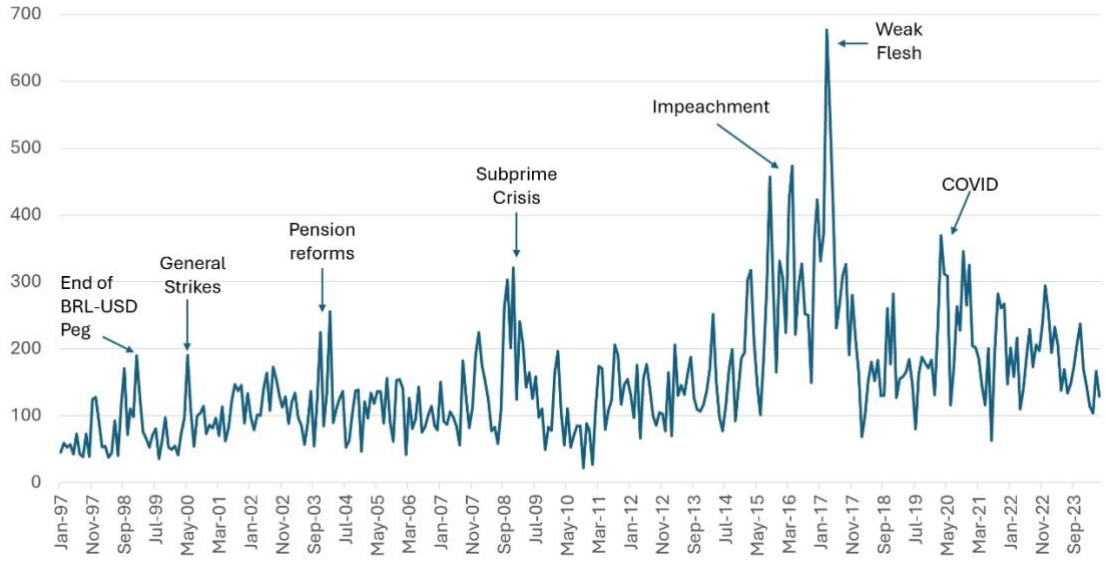
		Vehicles			Homes and Other Assets	
EPU	-0.000	-0.003***	-0.001	-0.001	-0.006**	-0.005**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)	(0.002)
Observations	843	1,265	1,680	379	575	780
Administrator FE	Y	Y	Y	Y	Y	Y
Segment FE	Y	Y	Y	Y	Y	Y
Time Trend Controls	N	Y	Y	N	Y	Y
Month x Administrator Clustered SE	Y	Y	Y	Y	Y	Y
Sample	4 months	6 months	8 months	4 months	6 months	8 months

Table 8. We provide results from 2SLS regressions using the Administrative Fee as dependent variable. Each observation is one Administrator-level observation in a given month that offers credit lotteries for a specific segment (homes, vehicles, and other). The variable EPU is the standardized value of the Economic Policy Uncertainty Index value, instrumentalized by the "Weak Flesh" Federal Police operation. In the first model we use 4 months of data (-2 to +1), in the second we use 6 months (-3 to +2), and finally we use 8 months in the third model (-4 to +3). Columns labeled "Vehicles" show the results for vehicle credit lotteries, while the "Homes and Other Assets" show the results for all other credit lotteries. We use Administrator-level and Segment fixed effects and we cluster the standard errors at the Year-Month level for each administrator. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

	Vehicles			Homes and Other Assets		
EPU	0.021*	0.009	0.008	0.039	0.024	0.013
	(0.013)	(0.017)	(0.016)	(0.025)	(0.034)	(0.035)
Observations	845	1,268	1,685	387	583	780
Administrator FE	Y	Y	Y	Y	Y	Y
Segment FE	Y	Y	Y	Y	Y	Y
Time Trend Controls	N	Y	Y	N	Y	Y
Month x Administrator Clustered SE	Y	Y	Y	Y	Y	Y
Sample	4 months	6 months	8 months	4 months	6 months	8 months

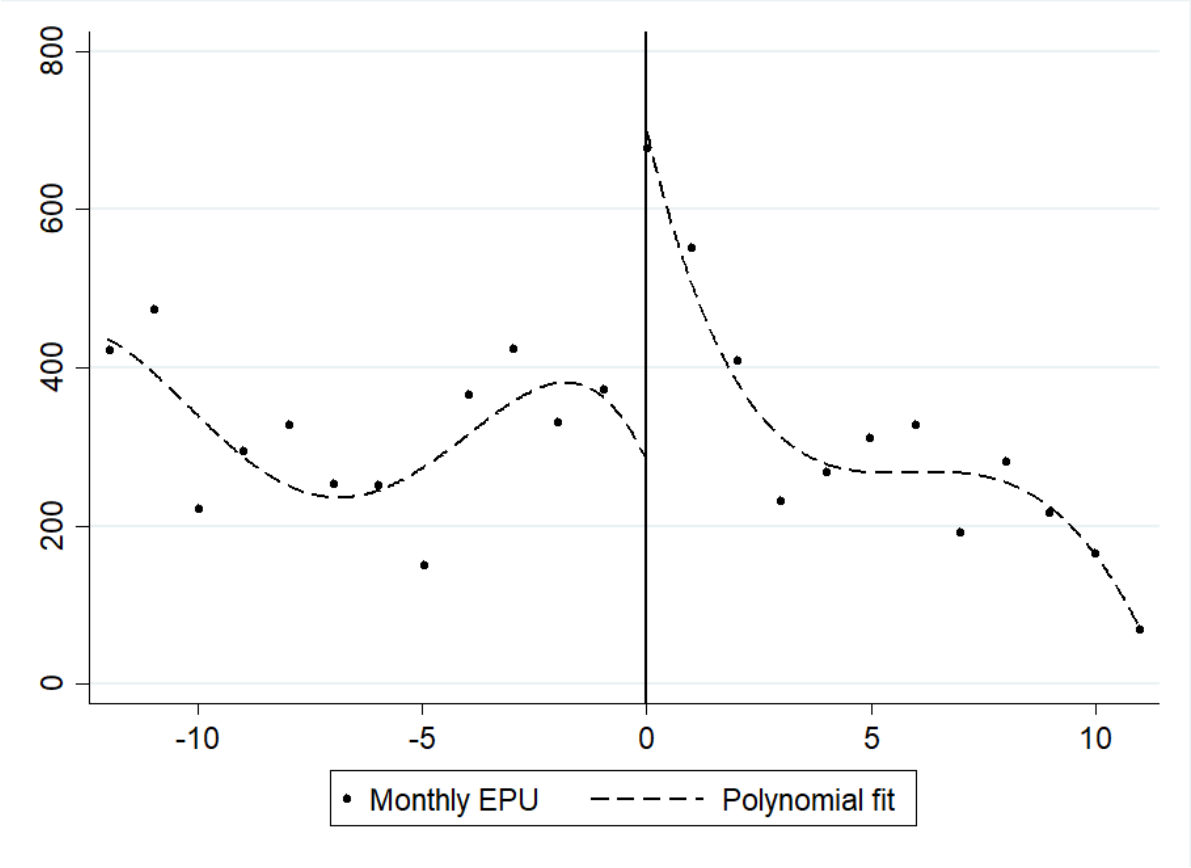
Figures

Figure 1: Brazilian Economic Policy Uncertainty (EPU) Index (1997–2024)



Notes: The figure plots the Brazilian EPU index from January 1997 to May 2024, highlighting major events associated with spikes in uncertainty.

Figure 2: Local Discontinuity in Economic Policy Uncertainty around the Weak Flesh Operation (−12 to +11 months)



Notes: The figure zooms in on the EPU index in the twelve months before and after the March 2017 Weak Flesh operation. The fitted polynomial line smooths short-term fluctuations, making the abrupt increase at the event date more apparent.

Figure 3: Discontinuity of ln(New Participants of Credit Lotteries) (from month -12 to month +11) around the "Weak Flesh" investigative operation

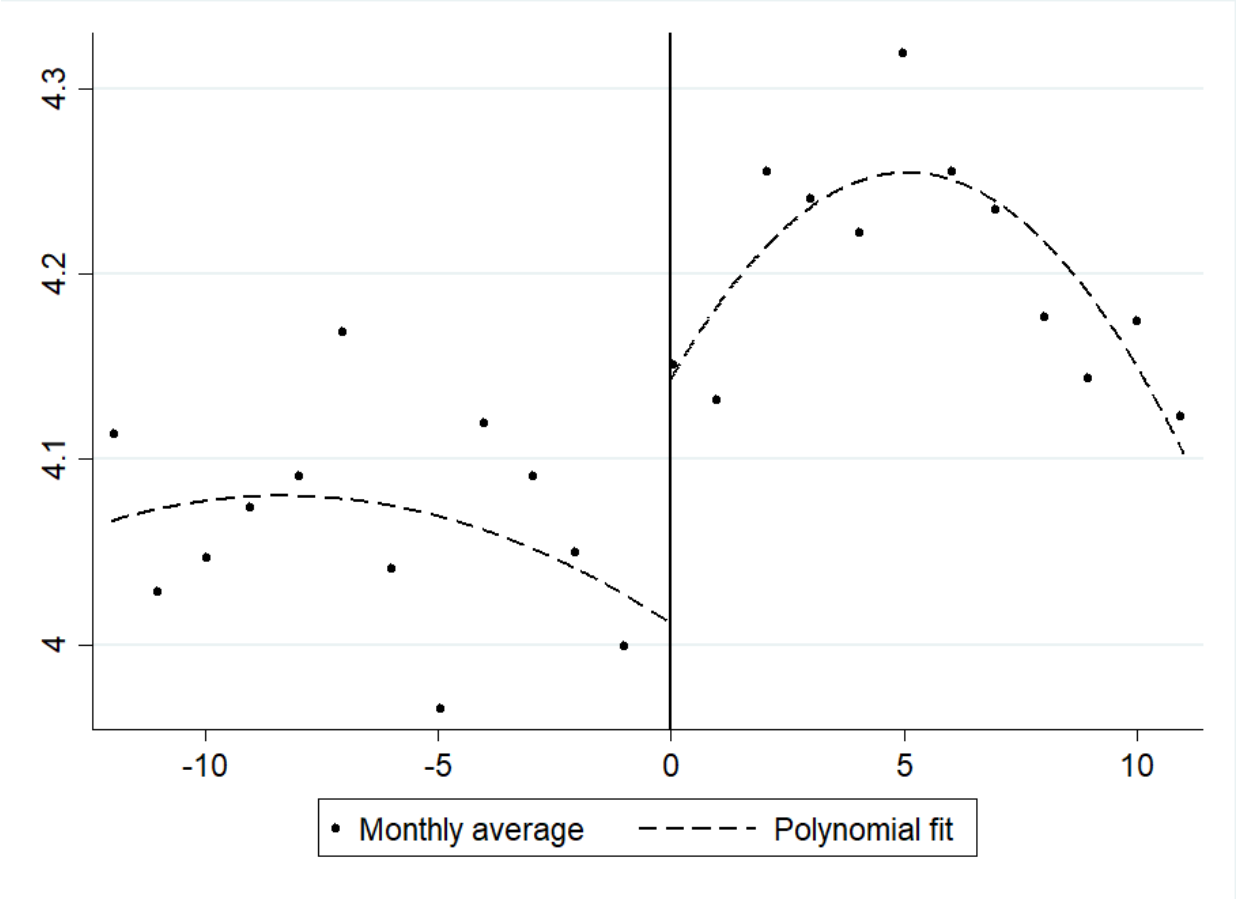
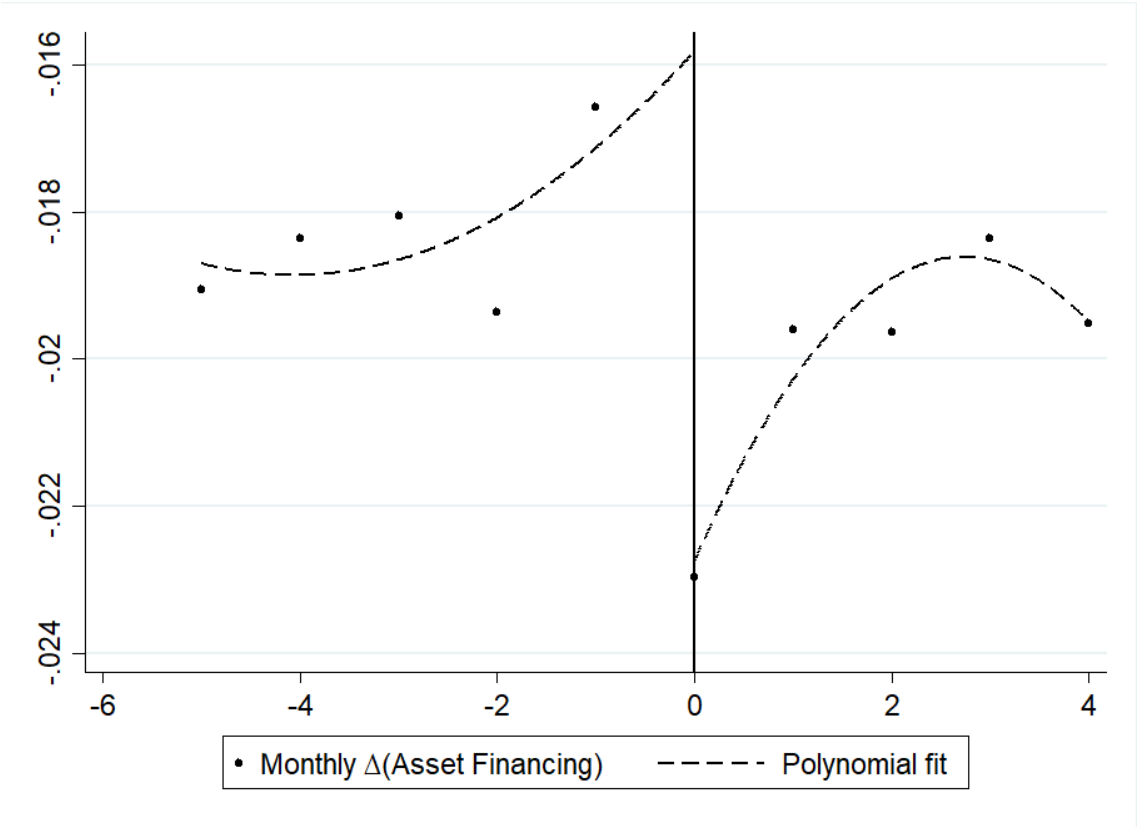


Figure 4: Discontinuity of Δ(*Asset Financing*) (from month -5 to month +4) around the "Weak Flesh" investigative operation



APPENDIX

Table A1. We provide results from 2SLS regressions using the ln(New Participants) as dependent variable. Each observation is one Administrator-level observation in a given month that offers credit lotteries for a specific segment (homes, vehicles, travel and other). The variable Placebo assumes the value of one onwards from March of 1, 6 and 10 years before the "Weak Flesh" investigative operation, and 0 beforehand. We use 6 months of data (-3 to +2) in all models. We use Administrator-level and Segment fixed effects and we cluster the standard errors at the Year-Month level. Significance levels: ***p<0.01, **p<0.05, *p<0.10. Standard errors in parentheses.

EPU	0.949	-0.035	-0.132
	(2.330)	(0.060)	(0.162)
Placebo	-2.222	-50.041***	-3.061***
	(1.728)	(1.447)	(0.468)
KP rk LM-stat	1.81	346.46***	40.48***
AR Wald F-stat	0.19	0.35	0.67
Observations	2,612	2,229	1,866
Administrator FE	Y	Y	Y
Segment FE	Y	Y	Y
Time Trend Controls	Y	Y	Y
Monthly Clustered SE	Y	Y	Y
Sampling Period	2006-2007	2010-2011	2015-2016

Table A2. Summary Statistics of ESTBAN data.

Variable	Mean	SD	Median	25th perc.	75th perc.
$\Delta(Asset\ Financing)_{i,m,t}$	-0.019	0.031	-0.017	-0.038	0.000
$\Delta(Savings)_{i,m,t}$	0.008	0.006	0.032	-0.011	0.024

Notes: This table reports means, standard deviations, medians and the 3th and 75th percentiles for the main variables of additional analyses. Both variables are winsorized at the 5th and 95th percentiles.

Figure A1: SELIC risk-free rate around March 2017. Source: Brazilian Central Bank.

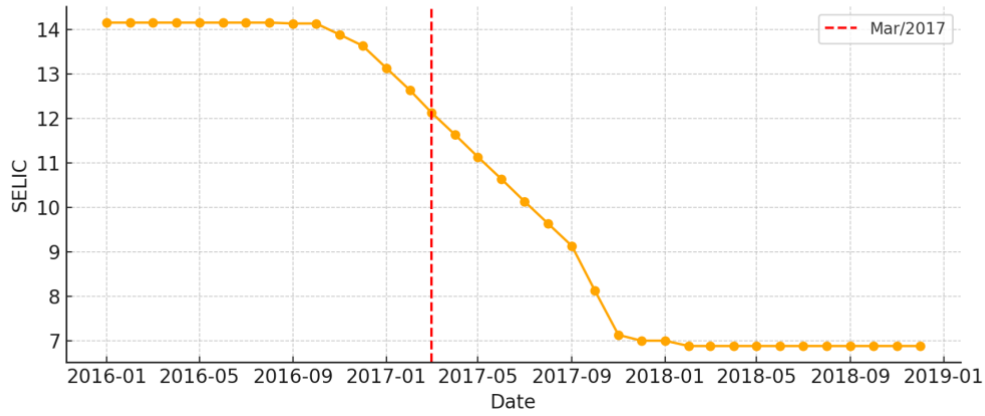


Figure A2: Consumer Inflation Index (IPCA) around March 2017. Source: Brazilian Institute for Geography and Statistics (IBGE).

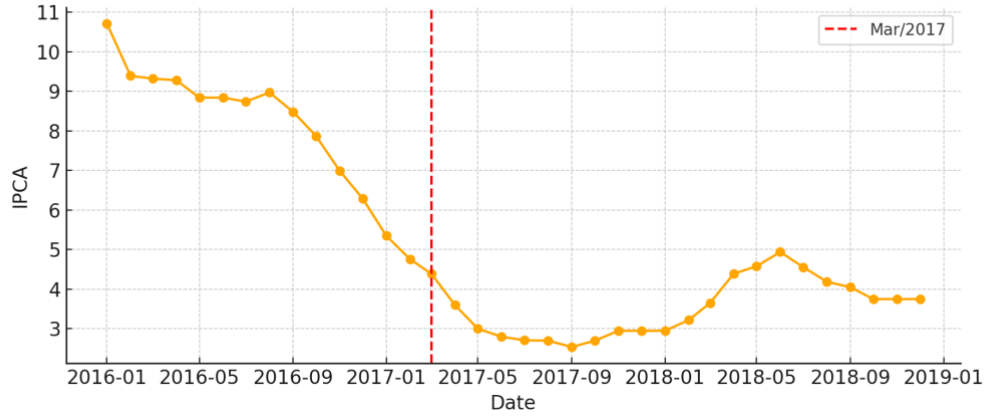


Figure A3: Formal Employment Index (CAGED) around March 2017. Source: Brazilian Ministry of Labor.

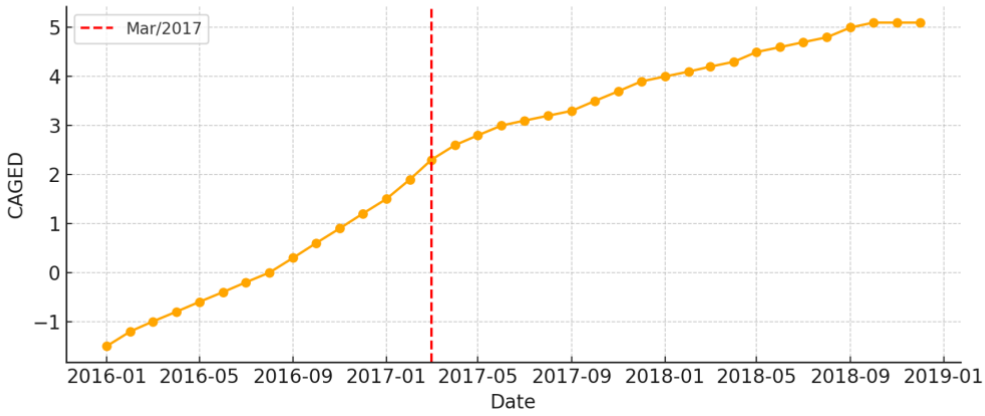


Figure A4: Economic Activity Index (IBC-Br) around March 2017. Source: Brazilian Central Bank.

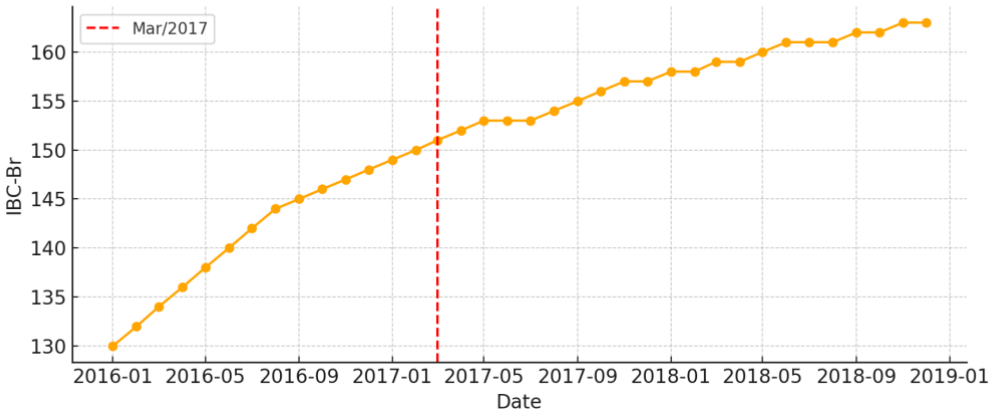
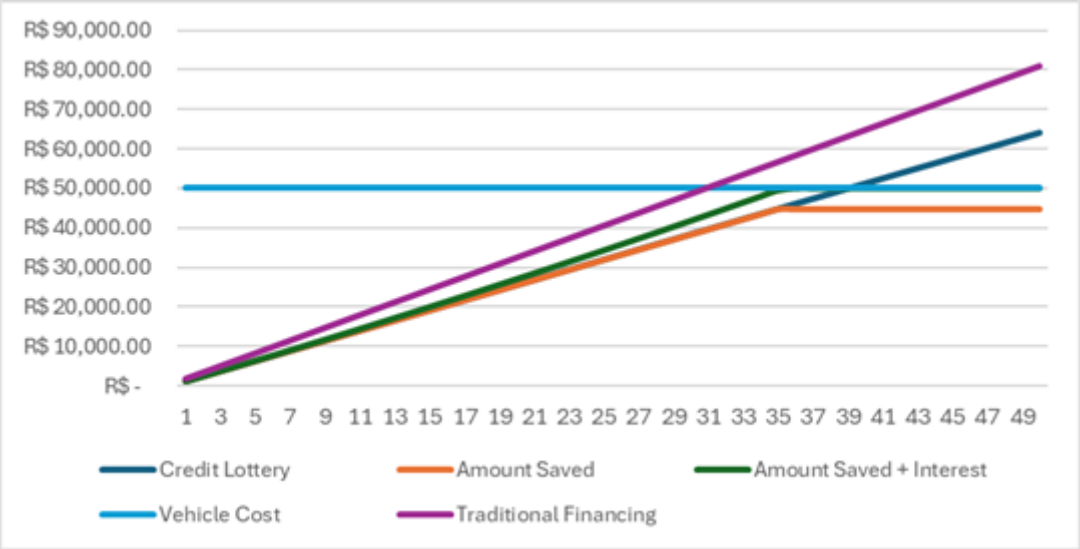


Figure A5: Comparison of Savings vs. Traditional Credit vs. Credit Lotteries for Vehicle Acquisition



Notes: This figure reports a comparison of savings vs. traditional credit vs. credit lotteries for vehicle acquisition using data from August 2025. The light blue horizontal line is the cost of the vehicle, set at 50,000 BRL. Over the 50-month financing period, the individual would pay 80,958 BRL for the vehicle (purple line) and they would receive the vehicle at time t=1, while paying about 60% more for the vehicle than the sticker price. By contrast, if the individual had saved in a savings account, they would have been able to buy the vehicle outright at t=33 (green line), while only spending 44,861 BRL (orange line). Credit lotteries participants would pay 64,087 BRL (dark blue line) over the 50-month period, an amount about 20% smaller than the traditional financing option, and they would have an expectation to receive the vehicle at t=25 (half-point of the payment schedule), 8 months before the expectation compared to the savings option.