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Scuttle for shelter: flight-to-safety and political uncertainty during the Spanish Second Republic

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The Spanish Second Republic was a unique experiment of democratization in interwar Europe, which was characterized by extreme levels of political uncertainty. We find that investors responded to shifts in uncertainty by selling stocks in favor of government bonds—a behavior known as flight-to-safety. Additionally, we find that political uncertainty caused stock market stress and induced significant differences in the cross-section of expected stock returns, consistent with the exposures to political uncertainty. The fact that investors recurrently scuttled to shelter into government bonds suggests that they did not perceive a radical change in the political regime as an immediate and credible threat.

1. Introduction

Uncertainty is an essential property of politics. The outcomes of political processes, such as elections, coalitions, policy-making, collective actions, and wars, are indeterminate and consequential, as they affect "the lives and fortunes of collectivities" (e.g., Cioffi-Revilla 1998). Since financial markets are generally forward-looking, they are sensitive to political uncertainty. For example, stocks capture investors' expectations through changes in future cash flows or discount rates, which can be affected by changes in the political environment. When investors perceive that the indeterminacy of political processes poses a threat to their wealth, they could increase their demand for safe assets—i.e., assets with minimum default risk. This is why government bonds could offer shelter for investors if stocks are negatively affected by political uncertainty. A recent stream of literature in finance (Baur and Lucey 2009; Bekaert *et al.* 2009; Baele *et al.* 2020) defines this phenomenon as "flight-to-safety" (FTS). However, this does occur only if investors do not perceive radical changes in the political order as a credible threat. Otherwise, political uncertainty would be nondiversifiable across financial assets.

In this paper, we use the experience of the Spanish Second Republic before the outbreak of the Civil War (1931–1936) to better understand the relationship between political uncertainty and asset prices in the context of massification of politics (Sartori 1973). We aim to assess to what extent the unprecedented political uncertainty generated by the new regime was diversifiable across (and within) different asset classes. To proxy for political uncertainty, we create a news-based measure based on ABC, a conservative newspaper. We verify the validity of this index against data about socio-economic conflicts and highlight its statistical relationship with economic fundamentals. Hence, we link it to data from the Madrid Stock Exchange (MSE) to provide a detailed picture of investor behavior.

The main research question is how investors adjusted their portfolios under the pressure of political uncertainty. To explore this, we focus on excess returns of government bonds over stocks. First, we highlight a strong positive relationship between this FTS metric and political uncertainty. Second, we document that the increase in political uncertainty corresponds to positive bond returns and negative stock returns. Third, we identify the existence of protracted periods of investor FTS and extreme FTS episodes in coincidence with high political uncertainty. Interestingly, narrative evidence from contemporary sources supports our findings.

In the remainder of the paper, we explore the stock market leg further. First, we highlight that stock market stress increased significantly as a consequence of political uncertainty. Second, we use the cross-section of returns to show that investors correctly priced stocks according to their exposure to political uncertainty. We also show that other sources of uncertainty, such as economic uncertainty and flight-to-liquidity effects, do not explain systematic changes in expected stock returns.

We conclude that the financial market events that occurred during the Republic can be characterized as an important FTS episode. The fact that Spanish government bonds were perceived as a shelter against political uncertainty suggests that investors did not seem to assign a significant probability to radical political changes that led to a repudiation of government debt or a permanent suppression of financial markets, such as after the Russian Revolution (Moore and Kaluzny 2005).

This paper speaks to different strands of research. First, we add to the literature on the relationship between political uncertainty and risk premia (Pastor and Veronesi 2013; Broogard and Detxel 2015) and FTS (e.g., Adrian *et al.* 2019; Baele *et al.* 2020). Second, we contribute to the literature on the relationship between political and macroeconomic uncertainties and financial market volatility during the Great Depression (e.g., Schwert 1989; Voth 2002; Mathy 2016; Cortes and Wiedenmier 2019; Moore and Verdickt 2021). To our knowledge, this is the first study that uses the state-of-the-art econometric methods to provide a comprehensive analysis of the impact of political uncertainty and investor behavior in the case of a peripheral economy with an emerging financial market in the interwar period.

2. Historical background

2.1. Political changes in the Second Spanish Republic

The Second Republic has been described as a continuously improvised process of democratization (Gonzalez Calleja *et al.* 2015). The survival of this new regime was constantly contested. In the general election of June 1931, won by a coalition of republicans and socialists, monarchic elites were almost completely replaced by new political actors. However, only a minority of liberals supported democracy wholeheartedly. Powerful forces on the left and right made only conditional commitments to constitutional procedures, seeing democratic institutions not as a goal per se, but as a caretaker government in a transition to socialism, a corporatist regime (catholic right), or the breakdown of the unitary state (regional nationalists). These forces refused to break out openly with disloyal movements on their side of the political spectrum, whose actions included conspiracies, insurrectional attempts, and politically motivated violence. Hence, governments

were fragile and the political situation always remained "very fluid and unstructured" (Linz 1978).[1]

The elections of November 1933 (won by a coalition of conservative republicans with the catholic right) and February 1936 (won by the Popular Front, which included the left republicans, socialists, and communists) caused dramatic elite turnovers and policy shifts. In both cases, winning coalitions obtained the majority of seats but a minority of votes and the opposition took the form of an armed rebellion (Colomer 2004). The escalation toward ideological polarization and violent confrontation was favored by the politicization of bureaucratic structures and the army (La Parra-Perez 2020,2021). This prevented republican governments from credibly committing to a restrained use of state power against their political opponents (Lapuente and Rothstein 2014) and made threats of a violent seizure of power by leftist parties more credible.

Concerns that some political developments could lead to a significant alteration of the existing status quo were a key source of political pressure. Traditionally, Spanish socialists rejected "revolutionary adventures" that could endanger their organizations. Thus, they preached respect for the bourgeois legality and privileged indirect action to improve the working-class material conditions (Gonzalez Calleja *et al.* 2015, pp. 420–435). Between April 1931 and September 1933, they participated in center-left cabinets, to promote constitutional, land, and labor market reform that the economic elites perceived as "harbingers of social revolution". After their defeat in the 1933 election, however, socialists rallied with communists, drifting toward a failed revolutionary insurrection in October 1934 (Gonzalez Calleja *et al.* 2015, pp. 754–69). The electoral victory of the Popular Front in February 1936 drew a massive wave of collective action and political violence that had clear pre-insurrectional overtones. Though the most recent historiography convincingly demonstrates that the leftist parties never planned a violent seizure of power, the scale of social disorder revived concerns about the possibility of radical political changes (Gonzalez Calleja *et al.* 2015, pp. 1111–1149).

2.2. The state of the economy

Like other peripheral economies, Spain suffered the consequences of the reversal of international capital flows and the propagation of the Great Depression (Wolf 2010; Accominotti and Eichengreen 2016). Structural budget and trade deficits were reflected in a continuous depreciation of the Spanish Peseta between 1928 and 1931. The stabilization of the exchange rate was a source of permanent conflict between the government and the Bank of Spain (Martinez Ruiz and Nogués-Marco 2014; Jorge-Sotelo 2020). The proclamation of the Republic in April 1931 was followed by a run on bank deposits, a stock market crash, and sizeable capital flights. International financial tensions escalated as Germany (July) and Britain (September) went off the gold standard. As a consequence, during the central months of 1931, Spain endured a twin crisis (banking and currency) that caused a 13-percent fall in gross domestic product (GDP) and a sizeable contraction of bank loans. The Bank of Spain reacted rather slowly but mitigated damages by increasing discount rates, supplying emergency liquidity and expanding the fiduciary circulation (e.g., Betrán *et al.* 2012; Martín-Aceña and Pons 2014; Betrán and Pons 2019; Jorge-Sotelo 2020).

The Great Depression had an important impact on Spain. Between January 1930 and December 1931, economic activity contracted by 17 percent, stagnated until 1934 and

[1] For instance, there were twenty cabinets during our sample period (see Table A1 in the appendix).

decreased thereafter (Albers, 2018). Hence, the priorities in economic policy-making became the duration of the recession and the speed at which monetary policy would be relaxed. Domestic monetary policy became an important source of economic uncertainty, as the government, private banks, and the Bank of Spain engaged in a permanent tug-of-war over the discount rate (Martín Aceña 1984). Moreover, a decrease in interest rates was linked to fiscal adjustments and the conversion of redeemable debt. As a result, this period was dominated by various attempts by different cabinets to reduce budget deficits.

3. The MSE

Traditionally, the MSE was specialized in government debt, which represented approximately 70 percent of its total trade volume at the end of WW1. Its share fell to 30 percent during the 1920s, due to a sustained expansion of trade in equities, and returned to 50 percent during the years of the Second Republic (Cuevas 2013, p. 163). To assess the impact of political uncertainty on financial markets, we construct a return index for equities and government bonds. In this section, we provide details on the two indices and link them to salient political events.

3.1. Stock market

The stock market index is based on the twenty-seven most liquid common stocks of Spanish companies traded in Madrid between 1 January, 1926, and 17 July, 1936. We hand-collected data on spot prices, paid dividends, the number of common stocks in circulation, and the trade volume from primary sources, such as the MSE's daily bulletin (*Boletín de Cotización Oficial*) and annual yearbook (*Anuario Oficial de Valores*). We use these data to calculate a daily value-weighted market index. Individual stock data allow us to exploit all information provided by the cross-section of expected stock returns. Since we have primary sources, they are of higher quality and free of key data biases, such as missing data or important capital operations (Brown *et al.* 1992; Annaert *et al.* 2012).

As in the case of other stock markets, there were very large cross-sectional differences in the liquidity of stocks, a few of them were trading daily (e.g., Moore 2010). We exclude from the index only stocks that had zero returns over 90 percent of all trading days (that is, 2,477 zero returns over 2,752 trading days). The average share of nonzero returns (weighted by market capitalization) over the entire sample is 63 percent and ranges for individual stocks from 93.4 percent (Banco de España, the most liquid) to 24.5 percent (Altos Hornos de Vizcaya, the most illiquid).[2] Additionally, we excluded two small foreign stocks trading on the MSE.[3] Hence, the index includes joint-stock companies that mostly operated in Spain. There are notable exceptions, such as Banco Hispano-Americano, CHADE (an electric utility), and Minas del Rif (a mining company), whose main business was abroad. Overall, our equity portfolio includes virtually all stocks with a minimum level of liquidity traded on the MSE. It

[2] Stocks that traded on average in more than 50 percent of days, account for 64 percent of total market capitalization. However, only seven of them (43 percent of market capitalization) traded in more than 70 percent of days. Liquidity did not depend linearly on size and significant variations can be observed even for companies in the same sector and with similar market capitalization.

[3] The excluded stocks are *Banco Nacional de México* (a Mexican bank), which was traded only occasionally, and *Banco Español del Rio de la Plata* (an Argentinian bank). The latter was traded with some regularity (54 percent of zero returns on average) but accounted for a mere 0.3 percent of total market capitalization.

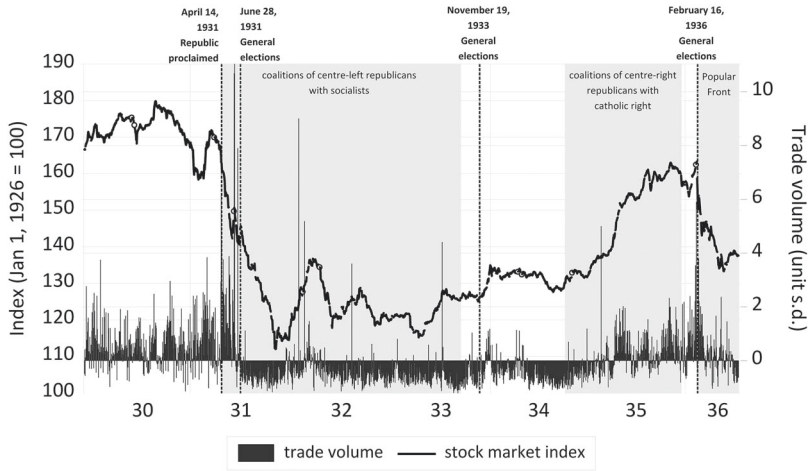

Figure 1. *Stock market index and trade volume*

also covers a wide range of sectors, including banking and insurance (with a mean weight of 33.7 percent), public utilities (31.7 percent), mining and manufacturing (23.5 percent), and transports (11.1 percent).[4]

Figure 1 plots the equity market index and the trade volume (converted to unit standard deviations). There are several notable movements, which relate to political events. For instance, the abrupt change of political regime in April 1931 led to a protracted market contraction that inflicted to investors a cumulative loss of 35 percent until November of the same year. Similarly, the index suffered a cumulative loss of 18 percent in the weeks after the victory of the Popular Front in the general elections of February 1936.[5]

On the contrary, in coincidence with the entry of the Catholic right in a cabinet with the conservative republicans and the successful repression of the revolutionary insurgence in Asturias (October 1934), the market exhibits an upward turning point, with a recovery in the trade volume in the subsequent months. This suggests that investors felt optimistic about the evolution of the political situation in this period. The episodes document that important political announcements had a strong impact on the equity market.

3.2. Bond market

For the bond market, we focus on the largest component of government securities traded in Madrid at the start of our sample period, the *Deuda perpetua interior 4 por ciento*. Similar to the equity market, we hand-collect data on spot prices and traded volume.[6]

[4] See Table A2 in the appendix for a detailed list of stocks included in the index.

[5] Trade volume remained permanently low between 1932 and 1934, reflecting the negative sentiment about equities.

[6] The deuda perpetua was split into domestic (*interior*) and foreign (*exterior*), both issued in different denominations ranging from 100 to 50,000 pesetas. After 1915, Deuda exterior (tax exempted) was gradually repatriated and 90 percent of it was domiciled in Spanish stocks exchanges by 1930. However, we do not use it as it was traded much less frequently than *Deuda interior* (subject to a 20 percent withholding tax). We collect prices of the 500 pesetas denominations (Serie A) of domestic consols, which accounted for approximately 57 percent of the total circulation. The coefficient of correlation between *Deuda interior* and *exterior* is 0.95 over the period 1926–1936.

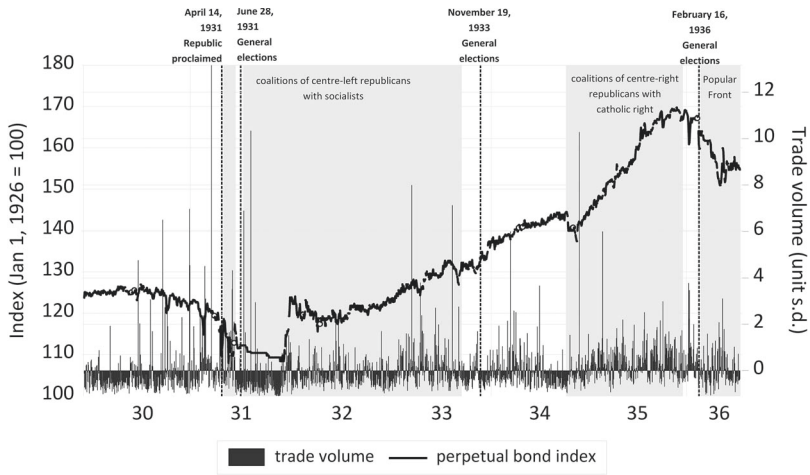

Figure 2. *Bond market index and trade volume*

Figure 2 plots the bond index and traded volume (converted to standard deviations). Compared with stocks, losses for bondholders were less pronounced both in 1931 (−10 percent until mid-May) and 1936 (−9.6 percent). After the general elections of June 1931, the stock exchange authorities, in coordination with the Ministry of Finance, imposed a temporary price floor that virtually fixed bond quotations until the end of November. In fact, bondholders were given a put option that spared them further losses. This contributed to restoring confidence and, as free trade was resumed in December, bond prices bounced back quickly to their pre-1931 level. The same intervention was successfully enforced in the weeks after the elections of February 1936. In turn, the bond market index shows a steady rising trend from 1932 to early 1936, with frequent periods of sustained trade. This suggests that investor sentiment about government bonds remained generally positive.

4. Political uncertainty index

In line with recent papers, we use the press to construct a news-based index of political uncertainty (see, e.g., Baker *et al.* 2016; Mathy and Ziebarth 2017; Verdickt 2020). Newspapers allow us to measure the magnitude of specific events while also picking up events that were expected but eventually did not materialize. Therefore, we avoid the trap of "hindsight analysis".

4.1. Source

Our news source is ABC, a conservative, catholic, and pro-monarchic newspaper. This choice has several advantages. First, ABC had the largest national circulation of the conservative newspapers during our sample period (Checa Godoy 2011). Second, its financial section published professional stock exchange chronicles (impresiones bursatiles), which allows us to use the information investors had available to them at the time. A possible limitation of focusing on one newspaper is its potential bias. In fact, ABC played a prominent role in opposition to the republican-socialist ruling coalition. Like other conservative newspapers,

its publication was suspended between 10 May and 4 June, 1931, and between 12 August and 29 November, 1932. For this reason, we have no values for the political uncertainty index during those periods. Nevertheless, since ABC did have a strong readership, it could have affected investor behavior. Moreover, there was no alternative newspaper with a comparable readership among investors and a less significant bias.[7]

4.2. Construction

To construct a metric of political uncertainty, we follow a four-step procedure. First, we read the financial chronicles on multiple important dates to identify search words that were systematically associated with political processes—such as mass mobilization, labor conflicts, and debates on socio-economic reforms (for instance, the land reform)—that could be perceived as a challenge to the socio-economic status quo. [8] Second, we use textual analysis to retrieve the monthly count of pages that contained those search words.[9] Third, we use standardized word counts and convert them into unit standard deviations, which is standard practice (Baker *et al.* 2016; Mathy and Ziebarth 2017). Finally, we reduce the dimensionality of individual news series to create composite indices through principal component analysis (PCA). Since the individual news series are correlated, PCA allows us to reduce the news components to only one variable with maximum variance.

To proxy political uncertainty, the keywords include chaos (*caos*), disorder (*desorden*), expropriation (*expropiación*),[10] revolution (*revolución*), strike (*huelga*), violence (*violencia*), and their derivatives. To limit the risk that our measure includes references to foreign events, we included *Spain* in the search words. On the other hand, we cannot rule out that international news contributed to the formation of expectations by Spanish investors. For this reason, we extensively study the validity of this measure, both quantitatively and qualitatively.

4.3. Political uncertainty index

Figure 3 plots the political uncertainty index. The index reaches high levels on several occasions: in April and July–October 1931; in January, March, May, and July 1932; in March and May 1933; between September 1933 and February 1934; in April–May, and September–November 1934; and finally, in January and April–June 1936. The months with increased

[7] Another popular source of information for investors was *El Debate*, the second most popular conservative newspaper after *ABC*. *El Debate* supported explicitly the Catholic and corporatist right politically united under *Confederación Española de Derechas Autónomas*. Overall, the main sources of information available to investors in Madrid were politically biased in favor of the conservative forces. In any case, Garcia-Uribe *et al.* (2021) find that the indices of socio-economic conflicts based on *ABC* and *La Vanguardia*, the leading newspaper published in Barcelona with a pro-catalanist and liberal stance, are very similar.

[8] Another political factor that could have an impact on investors was the Catalan separatism. However, we do not expect a direct effect on the equity market, since no stocks of Catalan companies were traded to any significant extent in Madrid. As to the bond market, the threat of a breakout of Spain as a unitary state would have caused an increase in default risk and a switch out of government debt, which would bias our data against any FTS effect from stocks to bonds.

[9] It is important to note that the number of pages did not vary significantly in our sample period.

[10] The word *expropriation* captures neatly news related to the agrarian reform, which was perceived by Spanish elites as a potential threat to private property rights. In fact, the frequency of *expropriation* peaks in August 1931, March and June–July 1932, in coincidence with its discussion in the parliament. The approval of the reform occurred in a period during which the publication of ABC was suspended (August–November 1932); therefore, we cannot observe directly its impact.

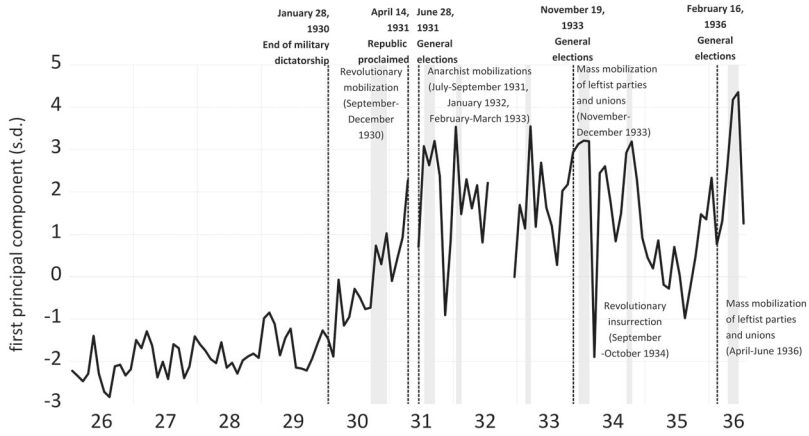

Figure 3. *Political uncertainty*

political uncertainty were characterized by multiple ongoing political processes, such as electoral campaigns, cabinet and coalition crises, parliamentary debates on institutional and socio-economic reforms, and waves of collective action (including strikes, blockades, land occupations, and insurrectional outbursts), which in many cases overlapped strategically.[11]

In coincidence with periods of high political uncertainty, ABC financial chronicles clearly captured the irruption of mass politics and socio-economic conflicts into the stock exchange. For instance, commentators noticed, with surprise, that investors seemed to respond exclusively to political news and hence neglect relevant information transmitted by economic fundamentals.

For instance, at the peak of the anarchist's mobilization of January 1932, ABC wrote,

"*There's no doubt that in recent times the market did not express itself with its own personality, but as a reflex reaction. Political directives and social manifestations are the two factors that exercised the most direct influence. . . . In hard and turbulent periods, [securities markets] are not in control of their own resources, but are slaves of external events*" (10 January, 1932).

In March 1933, as a new wave of strikes and protests took the streets, ABC reiterated,

"*Spanish stock exchanges [. . .] have become intoxicated by politics. [. . .] Factors intrinsic to each security played no role and went generally unnoticed*" (19 March, 1933).

At the beginning of the campaign for the general elections of November 1933, ABC noticed,

"*The stock exchange has an overly great concern for the electoral process [. . .] and [. . .] in spite of the occurrence of other events, they are neglected and the outlook of the elections remains preponderant [. . .] This attitude is not surprising, because our generation never experienced such an intense political and social struggle*" (29 October, 1933).

[11] For instance, local collective actions, such as land occupations, were used to accelerate the approval and implementation of land reforms in 1932–1933 and 1936 (Doménech and Martinelli 2020).

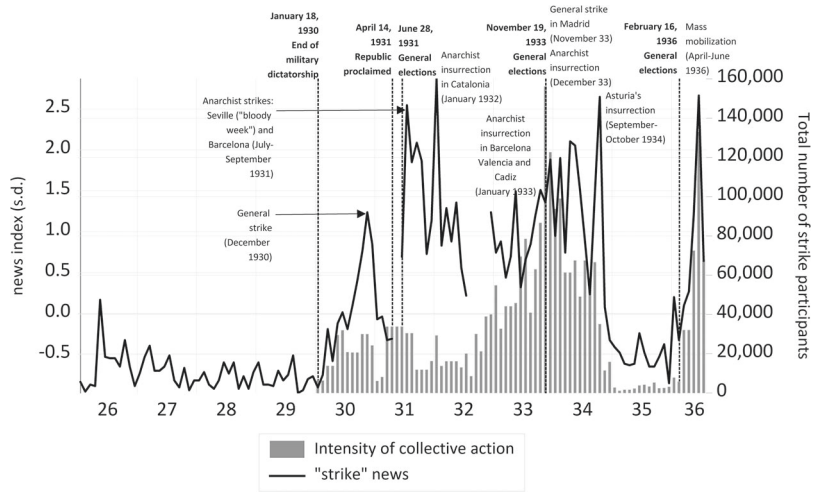

Figure 4. *Strike news and waves of collective action*

Even after the rise to power of a center-right coalition, ABC wrote in February 1934,

"*The stock exchange knows that we are living in an age of revolution, which is characterized by [. . .] excessive and violent manifestations of political activity by an extremist opposition and an extreme weakness of the government*" (11 February, 1934).

4.4. The validity of the uncertainty index

To assess the validity of our index, we compare it with factual evidence and test its impact on economic fundamentals. First, we examine it against available data about socio-economic conflicts. Figure 4 plots the monthly standardized index of strike news against the available official strike statistics.[12] We find that the strike news index tracks the magnitude of collective action relatively well. In fact, the correlation between the political uncertainty news and the number of strike participants is 0.52. This means that there is a nontrivial amount of independence between the time series. For example, the insurrection of October 1934 was a relatively small event in terms of participants—it was geographically concentrated in Asturias, Catalonia, and Madrid—but it generated a large flow of information due to its political relevance. This is captured in our metrics, and therefore, we adequately reflect the scale of politically relevant news.[13]

To further establish the validity of the political uncertainty metric, we test its relation with economic fundamentals, such as GDP, export, or import (Albers 2018). We use a local

[12] The number of strikes were reported monthly by bulletins published by the Ministry of Labor (*Boletín Mensual*). The data were then revised ex post and the amended monthly figures were published in an annual statistical summary (*Estadística Final*), not available for the years 1935 and 1936. The statistical series often exhibit large discrepancies whose origins are not clear. We use here the number of strikes reported monthly without an ex post adjustment. Initially, the Bulletin reported data bimonthly; in these cases, strikes are equally assigned to each month. The data are from Gonzalez Calleja *et al.* (2015), pp. 757–758.

[13] In figure A1, we provide additional evidence that news related to "violence" correlate with statistics of political violence.

Table 1. *Summary statistics*

Panel A: monthly data	Mean	Median	Max	Min	Std. dev
Bond total returns	0.0034	0.0025	0.1210	−0.0534	0.0192
Stock total returns	0.0025	0.0042	0.0702	−0.1156	0.0337
FTS returns (bond–stock)	0.0009	0.0010	0.1054	−0.0791	0.0316
Dividend yield	0.0401	0.0394	0.0565	0.0287	0.0062
Stock market liquidity	0.637	0.640	0.806	0.375	0.086
Stock market turnover	0.0027	0.0027	0.0055	0.0008	0.0010
Exchange rate (Pesetas/FF)	36.91	38.29	51.75	15.74	11.32
Political uncertainty index	−0.112	−0.285	4.357	−2.843	1.972
Macro uncertainty index	−0.082	−0.253	3.645	−2.089	1.376
Panel B: daily data	**Mean**	**Median**	**Max**	**Min**	**Std. dev**
Bond returns	0.0002	0.0000	0.0398	−0.0444	0.0049
Stock returns	0.0001	0.0002	0.0307	−0.0397	0.0047
FTS returns (bond–stock)	−0.0000	−0.0000	0.0521	−0.0349	0.0062
Dividend yield	0.0454	0.0453	0.0553	0.0364	0.0055
Stock market liquidity	0.359	0.364	0.909	0.037	0.128
Stock market turnover	0.0001	0.0001	0.0011	0.0000	0.0082
Exchange rate (Pesetas/FF)	36.48	37.52	51.75	15.74	11.28
Political uncertainty index	−0.059	−0.278	4.357	−2.843	1.919
Macro uncertainty index	−0.071	−0.253	3.645	−2.089	1.375

The table reports the summary statistics in a monthly (Panel A) and daily (Panel B) frequency. Results are based on the period of January 1926 to July 1936.

Table 2. *Real economic effects of political uncertainty*

	GDP growth	Import growth	Export growth
Political uncertainty	−0.001*(−1.666)	−0.005*(−1.675)	−0.007*(−1.816)
Economic uncertainty	0.000(−0.160)	0.001(0.502)	0.002(0.774)
Bond returns	−0.859(−0.612)	−4.973(−0.607)	−4.905(−0.510)
Exchange rate	0.005(0.319)	0.002(0.021)	0.206**(2.116)
Dividend yield	−0.001(−0.306)	−0.002(−0.110)	−0.004(−0.179)
GDP growth$_{t-1}$	0.631***(8.256)	—	—
Import growth$_{t-1}$	—	0.461***(5.506)	—
Export growth$_{t-1}$	—	—	0.458***(5.555)
Constant	−0.004(−0.317)	−0.01(−0.144)	−0.041(−0.491)
R-squared	0.458	0.267	0.239

The table reports regression coefficients from a local projections model. We regress GDP and import or export growth on the index of political uncertainty, controlling for economic uncertainty, bond returns, the exchange rate between the Spanish Peseta and French Franc, and the dividend yield. Using the AIC-criteria to estimate the appropriate number of lags, we include one lag. *t*-statistics are given in parentheses. Results are based on the period of January 1926 to July 1936. *, **, and *** represent significance at the 10, 5, and 1 percent levels, respectively.

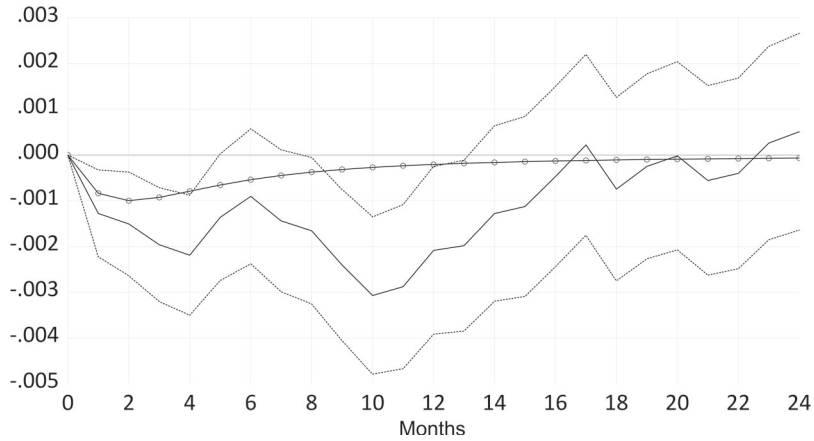

Figure 5. *Local projections: GDP growth*

projection regression model (Jordà 2005) since it is robust to regression misspecifications, not state-dependent, and, more importantly, allows for nonlinearities in the data. The specification is

$$\Delta y_{t,t+h} = \alpha + \beta\ POL_t + \gamma\ X_t + \varepsilon_{t,t+h}, \tag{1}$$

where $\Delta y_{t,t+h}$ is the growth rate of GDP, import, and export from month t to $t+h$, POL is the political uncertainty index, and X is a vector of control variables. To control for economic uncertainty, we use ABC to construct an index of economic news based on words related to monetary, fiscal, or exchange rate policies.[14] We also add the exchange rate between the Spanish Peseta and the French Franc, the stock market dividend yield, a measure of aggregate market liquidity (stock turnover), and a dummy variable that yields one in the months during which ABC's publication was suspended.[15]

We report summary statistics in table 1 and the regression results in table 2. We document a negative relationship between economic fundamentals and political uncertainty. For instance, a one-unit increase in the political uncertainty index corresponds to a decrease in GDP growth of 0.1 percent, which is statistically significant at a 10 percent confidence level. Similarly, an increase of political uncertainty index relates to decreases in import (−0.5 percent) and export (−0.7 percent) growth. For the control variables, there are two key takeaways. First, we find a negative relationship between dividend yield and economic fundamentals. Since dividend yield relates to business cycles, this negative effect is in line with expectations.

[14] We focus on the following keywords: Bank of Spain (*Banco de España*), discount rate (*tipo de descuento*), foreign exchange rates (*cambio, tipo de cambio*, *Peseta*), and government budget (*presupuesto del Estado*). Very similar words are used by Ghirelli *et al.* (2021) to construct an index of economic policy uncertainty for Spain. Similar to political uncertainty, we included *Spain* to the words used in the search. Figure A2–A4 in the appendix provide additional information.

[15] We define the dividend yield as the rolling sum of all paid dividends over the past 12 months without reinvestment (see Verdickt *et al.* 2019). The exchange rate is from the Banco de España (2005). Finally, we use the stock turnover ratio to control for aggregate market liquidity, similar to Campbell *et al.* (2018).

Second, the depreciation of the exchange rate has a positive effect on export growth, as expected.[16]

To study the longevity of the effect, we plot the impulse-response function for GDP growth in figure 5. The figure shows that the negative relation between political uncertainty and GDP growth persists over several months. This finding compares well with more recent evidence (Baker *et al.* 2016). More importantly, the results validate the use of the political uncertainty measure in the remainder of this paper.

5. Flight-to-safety

To study the effect of political uncertainty on financial markets, we focus on stock and bond data at both the monthly and the daily frequencies. Low-frequency data are a natural choice, given our monthly uncertainty index. However, high-frequency data may be better able to capture a short-term impact of contiguous uncertainty shocks in a very fluid political environment.

In the period 1926–1936, the monthly (daily) average return equaled 0.25 percent (0.01 percent) on stocks and 0.34 percent (0.02 percent) on bonds, with a monthly (daily) volatility of 3.30 percent (0.47 percent) and 1.90 percent (0.49 percent), respectively (see table 1). Over the sample period, the correlation between monthly (daily) stock and bond returns was 0.393 (0.162). The positive correlation between stocks and bonds is a fact in empirical finance, as they both respond to similar economic fundamentals. Yet, it is also well known that the dependence between their returns is time-varying. Periods of negative correlation are frequent, and there exists a large literature devoted to studying their determinants. Investor flight-to-quality during periods of stock market turbulence is one possible source of stock–bond decoupling, as risk aversion increases and portfolios are adjusted accordingly (Baele *et al.* 2020). In the next section, we propose an empirical strategy that allows us to identify precisely FTS episodes and their impact on financial markets.

5.1. FTS returns

Our FTS metric is the excess return of bonds over stocks. The median monthly FTS return is 0.10 percent (daily 0.00 percent, equivalent to a monthly return of 0.20 percent). We fit a linear regression to estimate both the contemporaneous relationship between political uncertainty and FTS returns and the ability of political uncertainty to predict FTS returns up to 6 months ahead:

$$FTS_{t,t+h} = \alpha + \beta\ POL_t + \gamma\ X_t + \varepsilon_{t,t+h}, \tag{2}$$

where *FTS* is the bond excess return, *POL* is the political uncertainty index, X is a vector of control variables similar to Equation ((1), and t + h defines the predictive time horizon with

[16] The negative impact of political uncertainty, social reforms, and labor conflicts on private investment and the level of economic activity was a concern expressed also by the most influential economists of the period (Martín-Aceña 1984; Comín 2011).

Table 3. *FTS effects: monthly data*

Panel A: benchmark regressions					
	(1) Cont.	(2) h = 1	(3) h = 2	(4) h = 4	(5) h = 6
1. FTS return	0.001	0.000	0.002***	0.005***	0.002
	(0.894)	(0.035)	(2.788)	(2.627)	(0.756)
2. Bond return	−0.001	−0.002	−0.001	0.002***	0.003**
	(−0.566)	(−1.454)	(−0.426)	(2.807)	(2.487)
3. Stock return	−0.001	−0.001	−0.002*	−0.004**	−0.000
	(−1.253)	(0.516)	(−1.919)	(−2.333)	(−0.014)
Panel B: high political uncertainty					
	(1) Cont.	(2) h = 1	(3) h = 2	(4) h = 4	(5) h = 6
4. FTS return	0.009	0.007	0.016**	0.021***	−0.002
	(1.315)	(0.946)	(2.301)	(3.906)	(−0.128)
5. Bond return	−0.003	−0.005	0.008**	0.013***	0.001
	(−0.625)	(−0.859)	(2.323)	(3.627)	(0.321)
6. Stock return	−0.001	−0.008	−0.011**	−0.014***	0.001
	(−1.253)	(−1.073)	(−2.419)	(−2.963)	(0.233)
Obs	127	126	125	123	121

The table reports regression coefficients from linear regression models. We regress monthly bond returns, stock returns, or FTS returns on the index of political uncertainty, controlling for economic uncertainty, a dummy that yields one in the months when the publication of the ABC newspaper was suspended by the government, dividend yield, a measure of aggregate stock market liquidity, the contemporaneous bond or stock return, and a dummy that yields one in March–April 1928 to take into account the effect of the conversion of part of *Deuda perpetua interior* into redeemable debt. Newey–West adjusted *t*-statistics are given in parentheses. Results are based on the period of January 1926 to July 1936. *, **, and *** represent significance at the 10, 5, and 1 percent levels, respectively.

h ranging from 1 to 6 months (24–144 days) for monthly (daily) observations.[17] To enhance comparability, we multiply daily data by 24 to express them in monthly equivalents.

Our benchmark results for the coefficient of interest (β) are summarized in tables 3 and 4. In table 3 (Panel A), where we focus on monthly data, we find that political uncertainty has the expected positive and statistically significant effect in a time horizon between 2 and 4 months. A one-unit increase in political uncertainty predicts an increase of the average FTS monthly return between 0.2 and 0.5 percent.

Bond and stock returns allow us to better understand the economic channels behind this result. We find that a one-unit increase in the political uncertainty index predicts a fall in the average monthly stock market return between −0.2 and −0.4 percent in a time horizon of 2–4 months and an increase in the bond market return of 0.2 percent after 4 months.

Daily data, reported in table 4 (Panel A), yield similar findings. An increase in political uncertainty predicts an average increase up to 0.5 percent of FTS returns in a time horizon between 48 and 72 days. This relates to an increase of 2.6 percent per year, which is

[17] Until 1931, the MSE operated as a rule on a 6-day week (Monday to Saturday) from October to May, reduced to 5 days (Monday to Friday) from June to September. As a consequence, our windows correspond to four, eight, twelve, and twenty-four standard trading weeks. A working week of 5 days for the whole year was adopted after 1931.

Table 4. *FTS effects: daily data*

Panel A: benchmark regressions						
	(1) Cont.	(2) h = 24	(3) h = 48	(4) h = 72	(5) h = 96	(6) h = 144
1. FTS return	0.002	0.001	0.005***	0.003*	0.002	0.001
	(0.850)	(0.444)	(3.040)	(1.787)	(1.082)	(0.560)
2. Bond return	−0.000	−0.001	0.001	0.002†	0.001	0.003***
	(−0.266)	(−0.646)	(1.036)	(1.551)	(0.615)	(3.322)
3. Stock return	−0.002	−0.002	−0.004***	−0.002	−0.001	0.002
	(−1.081)	(−1.049)	(−3.008)	(−1.051)	(−0.962)	(1.076)
Panel B: high political uncertainty						
	(1) Cont.	(2) h = 24	(3) h = 48	(4) h = 72	(5) h = 96	(6) h = 144
4. FTS return	0.012	0.012	0.023***	0.012†	−0.001	0.001
	(1.249)	(1.528)	(3.188)	(1.447)	(−0.141)	(0.195)
5. Bond return	−0.001	0.003	0.013***	0.009	0.003	0.008**
	(−0.210)	(0.645)	(2.836)	(1.533)	(0.556)	(2.292)
6. Stock return	−0.013†	−0.009	−0.011**	−0.004	0.003	0.006
	(−1.568)	(−1.316)	(−2.147)	(−0.552)	(0.636)	(0.785)
Obs	2,752	2,728	2,704	2,680	2,656	2,608

The table reports regression coefficients from linear regression models. We regress monthly bond returns, stock returns, or FTS returns on the index of political uncertainty, controlling for economic uncertainty, a dummy that yields one in the months when the publication of the ABC newspaper was suspended by the government, dividend yield, a measure of aggregate stock market liquidity, the contemporaneous bond or stock return, and a dummy that yields one in March–April 1928 to take into account the effect of the conversion of part of *Deuda perpetua interior* into redeemable debt. Newey–West adjusted *t*-statistics are given in parentheses. Results are based on the period of January 1926 to July 1936. *, **, and *** represent significance at the 10, 5, and 1 percent levels, respectively.

economically meaningful. There is an increase of 0.1 to 0.2 percent for bond returns (significant only at the 15 percent level) and a decrease of up to −0.4 percent in the stock return. Overall, these results indicate that a strategy where investors responded to political uncertainty by going long in bonds and short in stocks yielded a significant positive performance.

As a robustness check, we consider the possibility that investors did not react linearly to increases in political uncertainty, but only when a critical threshold was reached. To explore the issue further, we turn to investors' responses to periods of high political uncertainty.[18] For that purpose, we create dummy variables that take the value of 1 in all months (or trading days within a month) with a political uncertainty index above two standard deviations (see Section 4.3) and zero otherwise.[19]

Results confirm our previous findings. As shown in tables 3 and 4 (Panel B), the dummy predicts an increase in average monthly FTS returns between 1.6 and 2.1 percent in a time horizon of 2–4 months, an increase in bond returns between 0.8 and 1.3 percent, and a decrease in stock returns between −1.1 and −1.4 percent. Using daily data, the predicted increase in the monthly average FTS return and bond returns is 2.3 and 1.3 percent,

[18] We are grateful to one of our anonymous referees for this suggestion.

[19] As a robustness check, we repeat the analysis with a threshold of 1.5 s.d. The results do not change.

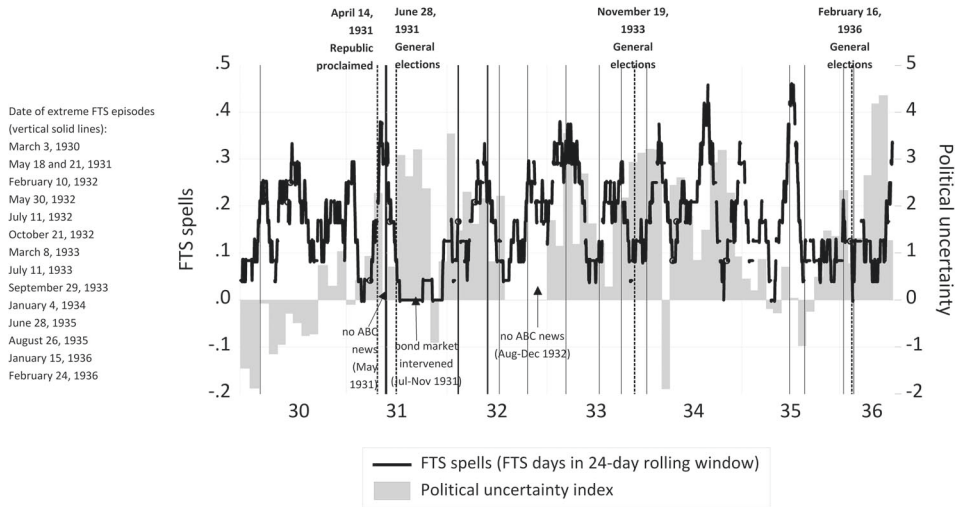

Figure 6. *FTS spells and extreme episodes*

respectively, and the decrease of stock returns −1.1 percent. As the predictive ability weakens over longer time horizons, our evidence also indicates that political uncertainty yields a temporary rather than a permanent effect. Therefore, we argue that political uncertainty led to short-term shifts in the investor portfolios out of stocks and into government bonds.

5.2. FTS spells

In this section, we provide a more detailed analysis of FTS episodes during the Republic. First, we use daily data to identify FTS days, that is, days with both a positive bond return and a negative stock return. We find 451 cases in our sample, accounting for 16.0 percent of trading days both in 1926–1929 and 1930–1936.

Second, we calculate their frequency within rolling windows of 24, 48, and 72 days to detect whether they clustered in specific periods. A protracted increase of this metric identifies FTS spells during which investors switched more frequently from stocks to bonds. Figure 6 plots this indicator, measured over a 24-day rolling window, against our political uncertainty index. We find that peaks of FTS spells (an incidence of FTS days above two standard deviations, equal to 30 percent of trading days) coincide regularly with periods of high political uncertainty. Interestingly, extreme FTS events—i.e. days with bond returns in the top (positive) 10 percent and stock returns in the bottom (negative) 10 percent of their distributions—occurred regularly in coincidence with FTS spells.[20]

Investor behavior did not go unnoticed by contemporary observers during the periods we identified as FTS spells. For instance, in March 1933, ABC commented,

"*Money [. . .] is hesitant, rather reluctant and uncertain, seeking refuge one day in government debt, another day in securities with similar characteristics, which attract capital and savings for their*

[20] Further details in Table ... in the appendix.

safety. On the contrary, it looks at industrial securities from a distance, and this attitude has the immediate consequence of causing their prices fall every day" (26 March, 1933).

And again in June 1934,

"*Another week full of [political] events and impressions [. . .] In the midst of all these abnormalities government securities exhibit upward resiliency, because there is no other shelter for money seeking to be invested*" (10 June, 1934).

We conclude that our results confirm that investors recurrently scuttled for shelter into government bonds during the uncertain period of the Second Republic. Of course, we do not claim that bonds were the *only* possible shelter. As it is usual in periods of heightened political uncertainty, part of the money that left the stock market likely found its way into other refugees, such as gold, cash, or (if capital controls were circumvented) foreign assets.

However, the frequency and magnitudes of the FTS effects from stocks to bonds suggest that investors did not perceive radical political changes leading to a repudiation of government debt or a permanent suppression of financial markets as an immediate and credible threat for most of the period of the Republic. This finding is consistent with other signals of investor confidence, such as the sustained recovery of bank deposits that started in 1931 and continued unabated during the rest of the Republican period (Jorge-Sotelo 2020, p.105).

5.3. Financial market volatility

To get a deeper understanding of the effects of political uncertainty on financial markets, we investigate its impact on the volatility of daily stock and bond returns. To link them with the monthly political uncertainty measure, we use the mixed-data sample regression model (MIDAS) with a generalized autoregressive conditional heteroskedasticity (GARCH) component, similar to Engle *et al.* (2013). This is appropriate since volatility clusters over time. An additional advantage is that the volatility, conditional on political uncertainty, can be divided into long- and short-term components. The GARCH-MIDAS model is specified as

$$r_{i,t} = \mu + \sqrt{\tau_t * g_{i,t}}\varepsilon_{i,t}, \forall i = 1, \ldots, N_t, \tag{4}$$

whereμ is the mean and $g_{i,t}$, τ_t refer to components of respectively short- and long-term conditional variance. The short-term component is estimated with a GARCH(1,1) model, that is,

$$g_{i,t} = (1 - \alpha - \beta) + \alpha \frac{\left(r_{i,t} - \mu\right)^2}{\tau_t} + \beta g_{i-1,t}, \tag{5}$$

where $\alpha > 0$, $\beta > 0$ and $\alpha + \beta < 1$.

The long-run component of volatility is then given as

$$\tau_t = m + \theta \sum_{k=1}^{K} \varphi_k \left(\omega_1, \omega_2\right) RV_{t-k} \tag{6}$$

where

$$RV_t = \sum_{i=1}^{N} r_{i,t}^2,$$

Table 5. *Financial market volatility*

Panel A: stock market								
μ	α	β	θ_t	ω_t,	m	BIC	LLI	RMSE
0.000*	0.102***	0.869***	0.204***	1.455***	0.002***	−17,958.9	9,003.19	0.0007
(1.713)	(15.074)	(117.390)	(14.526)	(5.769)	(5.852)			
Panel B: bond market								
μ	α	β	θ_t	ω_t,	m	BIC	LLI	RMSE
0.000*	0.197***	0.779***	−0.019	3.858	0.004***	−18,337.2	9,192.38	0.008
(1.959)	(14.576)	(67.650)	(−0.175)	(1.007)	(3.766)			

The table reports regression coefficients of GARCH-MIDAS with daily stock returns (Panel A) or daily bond returns (Panel B) on monthly political uncertainty. Standard errors are reported in parentheses. Results are based on the period of January 1926 to July 1936. *, **, and *** represent significance at the 10, 5, and 1 percent levels, respectively.

where RV_t is the realized variance, measured as squared daily returns, τ_t, the long-term component becomes a smoothed realized volatility variable through the MIDAS regression, and θ is the variable that links political uncertainty to the smoothed realized volatility.

We report the regression results in table 5. In Panel A, the θ coefficient is positive and significant. With a weighting parameter of 0.455 and θ component of 0.204, the effect equals 0.93 percent $\left(e^{\left(0.455\ x\frac{0.204}{12}\right)}-1\right)$. This indicates that an increase of political uncertainty by one standard deviation leads to an increase in long-run volatility. The magnitude of this relationship is in line with the literature that focuses on a more recent period, such as Engle *et al.* (2013).

In figure 7, we can link spikes in volatility with episodes of high political uncertainty. For instance, a long-lasting volatility cluster started around 14 April, 1931 (when the Republic was proclaimed) and peaked on 1 July, 1931 (announcement of the success of republicans and socialists in the general elections). During this period, stock volatility reflected investors' concerns heightened by electoral uncertainty, clearly expressed by ABC chronicles:

"*The proximity of the elections for the Constituent Parliament stirs the spirits, and the political and social organizations go to war with no possibility to predict the result*" (21 June, 1931).

In the press, the second shorter cluster around 1 November, 1931, was related to the announcement of a bill draft on worker unions' participation in the management of firms. This proposal (eventually withdrawn) stirred a violent political controversy also within the center-left coalition and generated huge uncertainty among investors (Palafox 1991, p. 202). As ABC wrote,

"*[The project] caused embarrassing impressions [and] conflicting opinions: some believe that its enforcement will not inhibit firms' investment, [but the majority believes] that it will be used to hinder their development*" (25 October, 1931).

The third (2 June, 1932) and fourth (9 March, 1933) spikes are related to expectations (eventually not fulfilled) of an imminent exit of socialists from the center-left ruling coalition, with a short-lived recovery of trading and prices.

Finally, the highest volatility spike (18–21 February, 1936) corresponds to the surprising victory of the Popular Front in the general elections and the ensuing political uncertainty. In fact, ABC wrote,

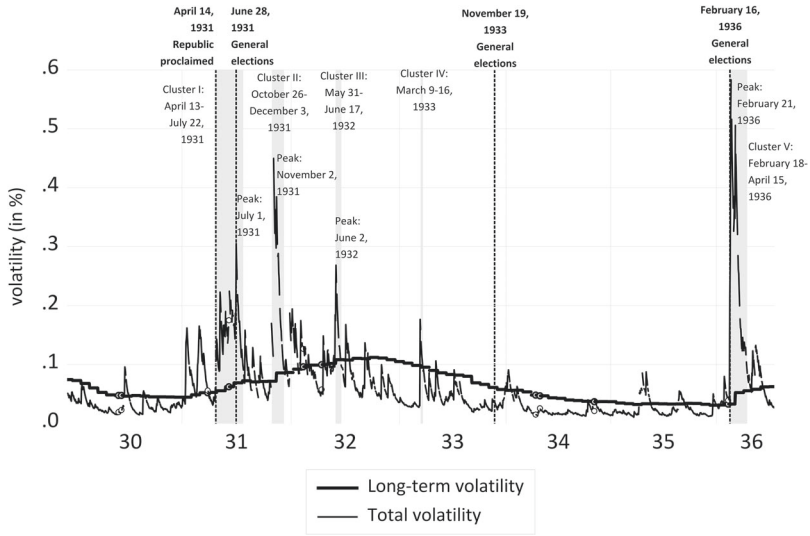

Figure 7. *Stock market volatility*

"*The stock exchange predicted an electoral outcome in favor of rightist and centrist parties [and] large trade volumes with high prices rested on this premonition. [. . .] The electoral results were surprising [and] as the stock exchange opened, consternation prevailed and a depression of spirits and prices arose. [. . .] In this period of agitation and confusion, it is very difficult to ascertain the true sentiment of the market. A banker told us [. . .] that in forty years he never had witnessed such an action and reaction in all types of securities as during the last week*" (22 February, 1936).

In Panel B, we find that the coefficient θ for bond volatility is statistically insignificant. This suggests that there is no contemporaneous effect of political uncertainty on bond volatility. This corresponds well with more recent evidence (Baele *et al.* 2020), which shows that, during FTS episodes, most of the action in volatility takes place in the equity market relative to the bond market. This confirms our main findings: spikes in political uncertainty during the Second Spanish Republic led to FTS for the average investor.

6. The cross-section of expected return

In this section, we dig deeper into the stock market to better understand how changes in political uncertainty affected the cross-section of expected returns. Our key questions here are whether stocks differed in their exposure to political uncertainty and to what extent those differences were correctly priced.

6.1. Univariate regression

We start with univariate portfolio analysis. This has the advantage of being nonparametric since we do not impose a functional form on the relationship between political uncertainty and stock returns. We measure the exposure of individual stock returns to political uncertainty from a monthly rolling regression of excess returns on the 1-month-ahead political uncertainty. As in Bali *et al.* (2017), we use a 60-month fixed window estimation (for instance,

from January 1926 to December 1930, then from February 1926 to January 1931, and so on). The monthly political uncertainty betas obtained from the rolling regressions are used to predict the cross-sectional returns in the next month. Then, we form four equally weighted portfolios sorted by uncertainty betas and run the following regression:

$$EPR_t = \alpha + \beta_1 EMR_t + \beta_2 EMR_{t-1} + \varepsilon_t, \tag{9}$$

where EPR_t is the excess portfolio return at time t, EMR_t is the excess market return at time t or t-1, and the regression intercept ("Alpha") measures abnormal returns. We run a model with (Model_2) or without (Model_1) lagged excess market returns, to control for potential nonsynchronous trading.

Table 6 reports the average uncertainty beta, average excess, and abnormal returns across portfolios. In Panel A, the first row shows that there is significant cross-sectional variation in the average beta, ranging from −0.7 to 0.5. This suggests that stock returns decrease (increase) for companies with a low (high) exposure to political uncertainty, conditional on the increase in the uncertainty measure. Moreover, this implies that some stocks could benefit from political uncertainty. However, when we include the 1-month-ahead excess returns, the portfolio performance ranges from −0.4 percent (Portfolio 1) to −1.2 percent (Portfolio 4). This indicates that, although Portfolio 1 has a negative exposure to political uncertainty, stocks did not benefit (on average) from this uncertainty. This re-confirms that investors scuttled for shelter toward bonds rather than stocks with lower exposure to political uncertainty.

The monthly long-short portfolio returns equaled −1.1 percent. Even if we control for the market index, the abnormal return across portfolios was significant. Indeed, stocks that were more affected by a surge in political uncertainty earned negative returns relative to less-affected stocks. Since the difference between stocks with high (long side) and low (short side) exposure is statistically significant, this implies that investors adjusted stock prices according to their sensitivity to political uncertainty. If we compare the results to recent findings, the observed differences in our sample period are larger in magnitude, while they are similar in direction (Brogaard and Detzel 2015; Bali *et al.* 2017).

6.2. Stock characteristics

To better understand the differences between Portfolio 4 (high exposure) and Portfolio 1 (low exposure), we investigate average stock characteristics. Each month, we calculate the equally weighted measure of interest—correlation, dividend yield, liquidity, size, and volatility—in a given portfolio, and average them over time.

We report the findings in table 6 (Panel B). First, stocks with low exposure to political uncertainty (Portfolio 1) have significantly higher liquidity compared with their more-exposed counterparts. On average, stocks in Portfolio 1 were traded around 70 percent of trading days in a month, where stocks in Portfolio 4 were traded only around 60 percent of trading days in a given month. This could indicate that the FTS effect is a "flight-to-liquidity" effect. In the following section, we dig deeper into this hypothesis.

Second, there is little variation in other cross-sectional metrics, that is, Size, dividend yield, volatility, and correlation are relatively similar in Portfolios 1 and 4. This suggests that there were no systematic differences between low- and high-exposure stocks. For instance, the average (log) size of stocks in Portfolio 1 equals 18.39 relative to 18.49 for Portfolio 4.

Table 6. *Cross-sectional evidence*

Panel A: univariate portfolios sorted on political uncertainty					
	1.	2.	3.	4.	(4–1)
Beta	−0.647	−0.259	0.079	0.471	1.119
Excess return	−0.004	−0.007	−0.012**	−0.015***	−0.011*
	(−0.685)	(1.262)	(−2.279)	(−2.946)	(−1.891)
$Alpha_1$	−0.002	−0.005*	−0.010***	−0.013***	−0.011**
	(−0.703)	(−1.815)	(−3.472)	(−3.136)	(−2.057)
$Alpha_2$	−0.002	−0.004*	−0.010***	−0.013***	−0.011**
	(−0.747)	(−1.632)	(−3.581)	(−3.235)	(−2.120)
Panel B: stock-level characteristics					
	1.	2.	3.	4.	(4–1)
Beta	−0.647	−0.259	0.079	0.471	1.119***
					(29.139)
Correlation	0.037	0.026	0.002	0.041	0.011
					(0.264)
Dividend yield	0.051	0.050	0.050	0.053	0.004
					(0.707)
Liquidity	0.698	0.705	0.677	0.594	−0.104***
					(−4.676)
Size	18.387	18.289	18.358	18.485	0.098
					(0.406)
Volatility	0.010	0.011	0.011	0.014	0.004
					(0.406)

Panel A reports regression coefficients from univariate portfolio sorts. Each month, we form four portfolios by sorting all individual stocks based on their political uncertainty beta (beta), where Portfolio 1 (4) contains the stocks with the lowest (highest) beta during the previous month. The first row reports the average uncertainty beta of individual stocks in each portfolio. The second row reports average monthly returns. The third and fourth rows report the regression intercept from a one (two) factor model with the market index (or lagged market index). The last column represents the difference in beta, returns, and alphas. Panel B reports portfolio averages for several metrics, such as beta, correlation with bond returns, liquidity, dividend yield, log of market capitalization (size), and monthly volatility. Results are based on the period of January 1926 to July 1936. *, **, and *** represent significance at the 10, 5, and 1 percent levels, respectively.

Moreover, there is no significant difference in terms of dividend yield. This indicates that investors did not rebalance portfolios to include high-yield stocks. We therefore conclude that flight-to-yield does not seem to explain the observed long-short difference.

Finally, we show that the likelihood of stocks in Portfolio 1 (or 4) remaining in that specific portfolio equals 28 percent (45 percent). This indicates there is persistence in stocks with low and high political uncertainty exposure. This also implies that there were other characteristics—for instance, the firm's sector—that determined the exposure to political uncertainty.[21]

[21] In the appendix (Table A11), we find that the worse performing firms are steel-making and mining companies (especially harmed by recurring waves of collective action), railways, and electric utilities (sensitive to state regulation and subsidies).

Table 7. *Fama–MacBeth analysis*

	(1)	(2)	(3)	(4)	(5)
Political uncertainty	−1.185**	−1.108*	−1.556***	−1.497***	−1.415**
	(−2.026)	(−1.951)	(−2.592)	(−2.618)	(−2.242)
Economic uncertainty	—	0.260	—	0.463	0.454
		(0.615)		(1.136)	(1.070)
Stock returns	0.004	0.004	0.015	0.015*	0.010
	(0.616)	(0.572)	(1.424)	(1.653)	(1.594)
Bond returns	—	—	−0.008*	−0.008*	−0.007
			(−1.718)	(−1.734)	(−1.585)
Exchange rate	—	—	0.007	0.006	0.007
			(0.482)	(0.483)	(0.549)
Dividend yield	—	—	0.002	0.001	0.001
			(0.944)	(0.789)	(0.522)
Turnover	—	—	0.103	0.097	—
			(0.686)	(0.738)	
Liquidity	—	—	—	—	−0.007
					(−0.239)
Constant	0.000	−0.000	0.001	0.001	0.001
	(0.133)	(−0.044)	(0.411)	(0.288)	(0.758)
R-squared	0.260	0.245	0.380	0.352	0.343

This table reports the time-series averages of slope coefficients obtained from regressing monthly stock returns on the political uncertainty index and a set of predictive variables using the Fama–MacBeth methodology. Newey–West adjusted *t*-statistics are given in parentheses. Results are based on the period of January 1926 to July 1936. *, **, and *** represent significance at the 10, 5, and 1 percent levels, respectively.

6.3. Fama–Macbeth regression

Was the relationship between political uncertainty and future returns affected by other factors? In this section, we use a Fama–MacBeth (1973) regression to control for additional risk factors, such as "flight-to-liquidity effects". First, we estimate stock exposure to political uncertainty and control variables in individual-stock time-series regressions. Second, we run a cross-sectional regression of realized stock returns on the estimated exposures in each period:

$$r_{i,t} = \alpha_{i,t} + \beta_i \lambda_{gt}, \tag{7}$$

where λ refers to the political uncertainty factor (and control variables), t refers to time, and i to each stock. To compute the average of prices of uncertainty across predetermined risk factors, we estimate

$$\hat{\lambda} = T^{-1} \sum_{t} \lambda, \tag{8}$$

We are interested in the slope estimates of these regressions,

$$\hat{\beta} = \frac{1}{T} \sum_{t=1}^{T} \hat{\beta}_t. \tag{9}$$

The return forecasts are estimated from the Fama–MacBeth regression of stock returns on the lagged factors. As control variables, we include political uncertainty, macroeconomic uncertainty, stock and bond returns, exchange rate variation, liquidity, and dividend yield. To test whether a characteristic significantly predicts returns, we compute the standard error of the slope estimate $\hat{\beta}$ as

$$Var\left(\hat{\beta}\right) = \frac{1}{T}\sum_{t=1}^{T} Var_T\left(\hat{\beta}_t\right), \tag{10}$$

To account for potential persistence in $\hat{\beta}$, we use Newey–West standard error adjustments. Table 7 shows the Fama–MacBeth regression coefficients. The negative price of risk associated with political uncertainty indicates that higher exposure to political uncertainty led to a decrease in stock returns (see Figure A7). This is in line with the cross-sectional regression analysis, where we showed that investors adjusted stock prices negatively for companies more affected by political uncertainty. Even when we include additional variables, there remains a significant cross-sectional difference across stocks. For instance, in Column 5, we document that liquidity is not a significant predictor of expected returns. This implies that there was a no "flight-to-liquidity" effect present in stock returns.

To put these numbers in perspective, we use the average values of the uncertainty betas of the four portfolios from table 6. The difference between the top and the bottom portfolios is 0.0112. The average slope coefficient in table 7 equaled −1.42. As in Bali *et al.* (2017), the increase in average expected returns for moving from the first to the last portfolio rounds up to −1.58 percent (1.12 × 1.42) per month, which is the equivalent of −20.74 percent per year, which is both statistically and economically significant. It does also re-confirm the conclusion from univariate regressions: political uncertainty was priced in stock returns, even if we control for other sources of uncertainty.[22]

7. Conclusions

During the Second Spanish Republic, political uncertainty increased immensely relative to previous regimes and the concerns about the possibility of radical changes in the political and socio-economic status quo became a key feature of political life. Periods with similar characteristics usually generate market stress and FTS episodes. We studied this hypothesis in the context of the interwar period, for which FTS was never documented empirically.

Using a news-based measure of political uncertainty, we document that the average investor shifted from equities to government bonds. The FTS shift remained significant up to 4 months after an important increase in the uncertainty index. Additionally, we find that there were protracted periods of investor FTS spells and extreme FTS events in coincidence with periods of heightened political pressure. Overall, this indicates that investors recurrently scuttled for shelter into bonds. ABC's financial chronicles qualitatively support our conclusions.

In the cross-section of stock returns, we show that stocks with high exposure to political uncertainty performed significantly worse than stocks with low exposure. However, investors did not consider low-exposure stocks as a shelter. Moreover, we highlight that there were neither "flight-to-liquidity" effects nor significant variation in expected returns due to general

[22] In table A12 in the appendix, we present the results of a "crash risk" test as a further robustness check.

economic uncertainty. Most of the actions in the equity market were a direct consequence of investors' concerns for political uncertainty.

We conclude that the political events during the Second Spanish Republic represented an important historical example of "flight-to-safety". This suggests that investors did not seem to perceive radical political changes as a credible threat. If they perceived the possibility of an alteration of the political order, leading to a repudiation of government debt or a permanent suppression of financial markets, political uncertainty would be non-diversifiable across assets, and we would not expect to observe any flight toward government bonds.

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Supplementary material

Supplementary material is available at *European Review of Economic History* online.

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