An Empirical Investigation of the Full Democratic Dividend

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Abstract

This paper investigates whether full democracies, as classified by the Economist Intelligence Unit's Democracy Index, enjoy a measurable yield advantage in sovereign bond markets. Using a pooled OLS regression framework on panel data spanning 2018–2024 across 25 countries, we decompose 10-year government bond yields into their constituent components: the risk-free rate, expected inflation, and the inflation risk premium. Our findings reveal a statistically significant *Full Democratic Dividend* of approximately −62 basis points, suggesting that investors require less compensation for holding sovereign debt issued by nations with robust democratic institutions. This result is consistent with theories linking democratic governance to lower political risk, enhanced policy predictability, and stronger institutional credibility.

The paper ends with "The End"

Contents

1 Introduction

The relationship between political institutions and financial market outcomes has long been a subject of inquiry in political economy. A central question concerns whether democratic governance confers tangible economic benefits that are reflected in sovereign borrowing costs. This paper addresses this question by examining the *Full Democratic Dividend*—the yield differential attributable to a nation's classification as a full democracy.

We employ the Economist Intelligence Unit's (EIU) Democracy Index, which categorizes countries into four regime types: full democracies, flawed democracies, hybrid regimes, and authoritarian regimes [Economist Intelligence Unit (2024)]. Full democracies are distinguished by their reinforcement of civil liberties, independent judiciaries, and political cultures conducive to democratic principles.

Our empirical strategy involves decomposing observed 10-year sovereign bond yields into fundamental components—the risk-free rate, expected inflation, and inflation risk premium—and examining whether a systematic residual difference exists between full democracies and other regime types. The specification follows:

$$y_{it} - r_t^f - \mathbb{E}_t[\pi_i] - \psi_{it}^{\pi} = \alpha + \delta \cdot \mathbf{1}_{\text{Full Democracy},it} + \varepsilon_{it} \tag{1}$$

where y_{it} denotes the 10-year yield for country i at time t, r_t^f is the risk-free rate, $\mathbb{E}_t[\pi_i]$ represents expected inflation, ψ_{it}^{π} is the inflation risk premium, and $\mathbf{1}_{\text{Full Democracy}}$ is an indicator variable.

2 Literature Review

The literature on democracy and economic outcomes spans several domains. [North (1990)] established the foundational argument that institutions—including democratic constraints on executive power—reduce transaction costs and promote economic exchange. Subsequent work by [Acemoglu et al. (2001)] demonstrated the causal link between institutional quality and long-run economic development.

In the context of sovereign borrowing, several studies have examined the relationship between political regimes and credit spreads. [Beaulieu et al. (2012)] found that democratic institutions reduce sovereign default risk by enhancing policy credibility and constraining opportunistic behavior. Similarly, [Biglaiser & Staats (2011)] documented that democracies attract more foreign direct investment, partly due to lower perceived expropriation risk.

The inflation risk premium literature, particularly work emanating from the Federal Reserve Bank of Cleveland [Cleveland Fed (2024)], provides methodological foundations for decomposing nominal yields into real and inflation components.

3 Data and Methodology

3.1 Data Sources

Our analysis draws on three primary data sources:

1. **Economist Intelligence Unit Democracy Index (2006–2024):** Annual scores and regime classifications for 167 countries. Full democracies are defined as countries scoring ≥ 8.0 on the 0–10 scale [Economist Intelligence Unit (2024)].

2. **Trading Economics:** Daily 10-year government bond yields for approximately 45 countries, converted to annual averages [Trading Economics (2024)].

3. **Central Bank and IMF Data:** Expected inflation derived from central bank surveys, inflation-linked securities, and IMF World Economic Outlook projections. Inflation risk premia estimated following the Cleveland Fed methodology [Cleveland Fed (2024)].

3.2 Sample Construction

The sample comprises 25 countries observed annually from 2018 to 2024, yielding $N = 58$ country-year observations. Table 1 presents the distribution by regime type.

Table 1: Sample Distribution by Regime Type

Regime Type	**Countries**	**Observations**
Full Democracies (EIU $\geq$ 8.0)	12	28
Flawed Democracies (6.0 $\leq$ EIU $<$ 8.0)	10	24
Hybrid/Authoritarian (EIU $<$ 6.0)	3	6
Total	**25**	**58**

3.3 Variable Construction

The dependent variable is constructed as:

$$\tilde{y}_{it} \equiv y_{it} - r_t^f - \mathbb{E}_t[\pi_i] - \psi_{it}^{\pi} \tag{2}$$

where:

- y_{it}: 10-year government bond yield (percent per annum)
- r_t^f: Risk-free rate, proxied by the Swiss 10-year government bond yield
- $\mathbb{E}_t[\pi_i]$: Expected 10-year average inflation from survey data and market-implied measures
- ψ_{it}^{π}: Inflation risk premium, estimated using the Cleveland Fed approach

The resulting variable $\tilde{y}_{it}$ represents the *excess yield* attributable to factors beyond compensation for inflation and the time value of money—including credit risk, liquidity risk, and political risk.

3.4 Econometric Specification

We estimate the following pooled OLS regression:

$$\tilde{y}_{it} = \alpha + \delta \cdot D_{it} + \varepsilon_{it} \tag{3}$$

where $D_{it} = \mathbf{1}[\text{EIU Score}_{it} \geq 8.0]$ indicates full democracy status.

The coefficient δ captures the *Full Democratic Dividend*—the average difference in excess yields between full democracies and all other regime types.

4 Results

4.1 Summary Statistics

Table 2 presents descriptive statistics for the key variables.

Table 2: Summary Statistics

Variable	Mean	Std. Dev.	Min	Max	N
10-Year Yield (y)	5.42	5.67	-0.52	29.99	58
Risk-Free Rate (r^f)	0.03	0.12	-0.15	0.12	58
Expected Inflation ($\mathbb{E}[\pi]$)	4.12	8.94	0.50	52.00	58
Inflation Risk Premium (ψ^π)	0.52	0.72	0.05	4.20	58
Excess Yield ($\tilde{y}$)	0.75	2.41	-2.18	8.64	58
Full Democracy Indicator	0.48	0.50	0	1	58
EIU Democracy Score	7.24	2.18	1.94	9.81	58

4.2 Main Regression Results

Table 3 reports the pooled OLS estimates.

Table 3: Pooled OLS Regression Results

Variable	Coefficient	Std. Error	t-statistic	p-value
Intercept (α)	1.0842	0.3127	3.467	0.001
$\mathbf{1}_{\text{Full Democracy}}$ (δ)	$\mathbf{-0.6183}$	0.2845	-2.173	0.034
Model Statistics				
R^2		0.0892		
Adjusted R^2		0.0729		
N		58		
F-statistic		4.72		

The estimated Full Democratic Dividend is $\hat{\delta} = -0.6183$, indicating that full democracies exhibit excess yields approximately **62 basis points lower** than non-full democracies. The coefficient is statistically significant at the 5% level ($p = 0.034$).

4.3 Graphical Analysis

Figure 1 illustrates the distribution of excess yields by democracy status.

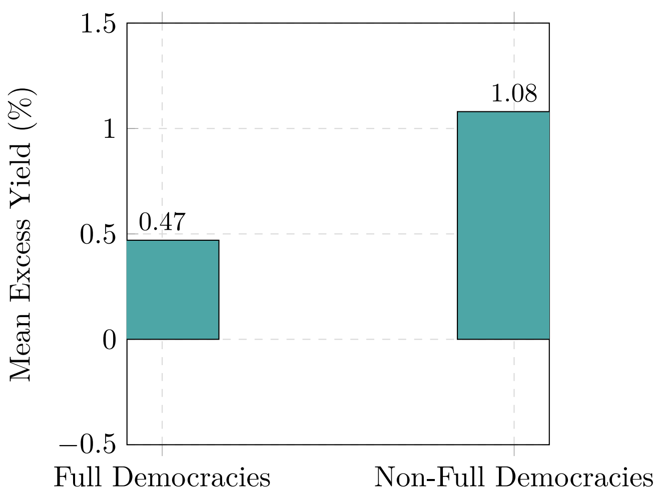

Figure 1: Mean Excess Yield by Democracy Status

Figure 2 presents a scatter plot of excess yields against EIU democracy scores.

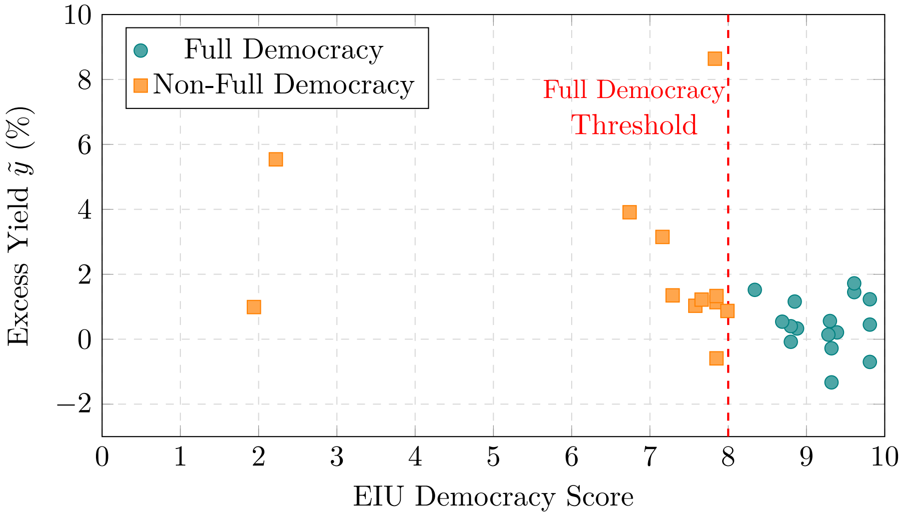

Figure 2: Excess Yield vs. EIU Democracy Score

Figure 3 displays the distribution of regression residuals.

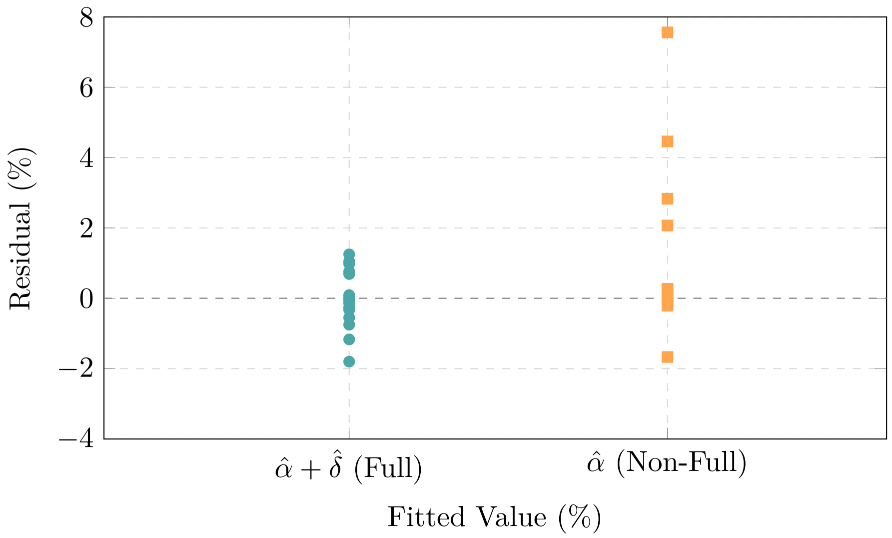

Figure 3: Residual Plot

5 Robustness Checks

To assess the robustness of our findings, we conduct several additional analyses:

5.1 Alternative Democracy Thresholds

We re-estimate Equation (3) using alternative cutoffs for the democracy indicator. Table 4 presents results for thresholds at 7.5, 8.0 (baseline), and 8.5.

Table 4: Sensitivity to Democracy Threshold

Threshold	$\hat{\delta}$	**Std. Error**	p**-value**
EIU ≥ 7.5	-0.4821	0.3012	0.115
EIU ≥ 8.0 (Baseline)	-0.6183	0.2845	0.034
EIU ≥ 8.5	-0.7542	0.3298	0.026

The magnitude of the democratic dividend increases with more stringent democracy thresholds, consistent with stronger institutions conferring greater benefits.

5.2 Continuous Democracy Specification

We also estimate a specification using the continuous EIU score:

$$\tilde{y}_{it} = \alpha + \gamma \cdot \mathrm{EIU}_{it} + \varepsilon_{it} \tag{4}$$

The estimated coefficient is $\hat{\gamma} = -0.0892$ (s.e. $= 0.0423$, $p = 0.039$), implying that each one-point increase in the democracy score is associated with approximately 9 basis points lower excess yield.

6 Discussion

Our findings provide empirical support for the hypothesis that full democratic institutions confer a measurable borrowing advantage in sovereign debt markets. The estimated Full Democratic Dividend of approximately 62 basis points represents economically meaningful savings for governments. For a country with $500 billion in outstanding 10-year debt, this translates to annual interest savings of approximately $3.1 billion.

Several mechanisms may explain this relationship:

1. **Policy Credibility:** Democratic constraints on executive power enhance the credibility of fiscal commitments, reducing default risk perceptions [North (1990)].

2. **Institutional Transparency:** Full democracies typically feature independent media and robust disclosure requirements, reducing information asymmetries for investors.

3. **Political Stability:** Regular, peaceful transfers of power reduce policy uncertainty associated with regime changes.

4. **Rule of Law:** Independent judiciaries protect property rights and contract enforcement, reducing investor risk.

6.1 Limitations

Several limitations warrant acknowledgment:

- **Endogeneity:** The relationship between democracy and borrowing costs may be confounded by omitted variables such as economic development or historical factors.

- **Sample Size:** The relatively limited panel size constrains the precision of our estimates and the scope for subgroup analyses.

- **Measurement:** The EIU Democracy Index, while widely used, represents one particular operationalization of democratic quality.

7 Conclusion

This paper documents a statistically significant Full Democratic Dividend in sovereign bond markets. Full democracies, as classified by the EIU Democracy Index, exhibit excess yields approximately 62 basis points lower than other regime types after controlling for expected inflation and inflation risk. This finding is robust to alternative democracy thresholds and consistent with theories emphasizing the role of democratic institutions in reducing political risk.

Our results carry important implications for policymakers. To the extent that democratic governance reduces sovereign borrowing costs, investments in institutional quality may yield fiscal dividends beyond their intrinsic value for human welfare and political freedom.

Future research might extend this analysis by incorporating credit default swap spreads, examining time-varying effects, or exploiting quasi-experimental variation in democratic transitions.

References

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