Research Paper

Eric Wang

Wednesday 20th November, 2024

Abstract

The economic performance of the U.S. is often linked to the political affiliation of the incumbent president, with studies suggesting stronger GDP growth under Democratic administrations. However, while existing research has primarily focused on macroeconomic indicators such as GDP growth, unemployment, and stock market performance, little attention has been given to business formation—a critical driver of economic vitality. This study addresses that gap by analyzing the relationship between presidential political affiliation and the annual rate of new business formation in the U.S. from 1978 to 2021, using data from the Business Dynamics Statistics (BDS) published by the U.S. Census Bureau. To ensure robust results, the analysis controls for key economic and political variables, including real GDP growth, unemployment, inflation, real interest rates, corporate tax rates, population growth, and the composition of Congress. Preliminary findings suggest xxxx... These results contribute to the broader discussion of how political leadership impacts economic outcomes and offer valuable insights for policymakers seeking to foster entrepreneurship and for business leaders navigating political uncertainty.

Part I

Content

Abstract

Introduction

New business formation reflects a nation's commitment to innovation, entrepreneurial vibrancy, and potential for economic growth. Policies governing taxes, loans, and business registration are often shaped by the incumbent administration's political ideology, influencing entrepreneurs' decisions to launch new ventures. Therefore, understanding how political affiliation affects entrepreneurship can provide useful insights for policymakers seeking to promote business activity and for entrepreneurs evaluating economic conditions.

This study draws on the Business Dynamics Statistics (BDS) from 1978 to 2021, which documents the number and proportion of new businesses among active businesses each year. Over this period, Democrats and Republicans each held the presidency for six terms by four people. I create a dummy variable to represent presidential affiliation (0 for Republican, 1 for Democratic) and map it against the business formation rate.

A major challenge of my study is while it is possible that presidential policies influence entrepreneurial activity, many external factors—such as economic cycles, interest rates, technological shifts, and global economic events—also shape business formation. To address this challenge, following Blinder and Watson's approach, I control for real GDP growth, unemployment, inflation, real interest rates, corporate tax rates, population growth, and congressional composition to isolate the relationship between political affiliation and entrepreneurship.

Amid post-COVID-19 recovery efforts and debates on small business support ahead of the 2024 election, understanding how presidential affiliation influences business formation offers timely and valuable insights.

Literature Review

This is the place where you should write your literature review.

The relationship between political orientation and economic outcomes has been extensively studied, with a notable focus on macroeconomic indicators such as GDP growth, stock market performance, and unemployment rates. One foundational study is Douglas Hibbs' Political Parties and Macroeconomic Policy (1977) Hibbs [1977], which analyzes how political ideologies shape economic outcomes. Using data from 12 Western European and North American nations, Hibbs demonstrates that left-leaning governments, such as the U.S. Democratic Party and the U.K. Labour Party, prioritize employment over inflation control. In contrast, right-leaning governments, including the Republican Party and the Conservatives, emphasize inflation control even at the expense of higher unemployment. Hibbs' work set a precedent for understanding the impact of political leadership on economic outcomes.

Building on these insights, Blinder and Watson (2016) Blinder and Watson [2016] analyze U.S. economic performance under Democratic and Republican presidents through the lens of GDP growth. They find that GDP growth is consistently higher under Democratic administrations, though much of this disparity remains unexplained by fiscal or monetary policy. Instead, external factors like oil shocks, productivity changes, and consumer sentiment may account for up to 56% of the growth gap.

Santa-Clara and Valkanov (2003) Santa-Clara and Valkanov [2003]also explore political leadership's influence on economic outcomes. Their study, The Presidential Puzzle: Political Cycles and the Stock Market, finds that stock market returns are higher under Democratic presidents without a corresponding increase in risk. The authors attribute this outcome to unexpected policy shocks that positively surprise market participants.

More recently, Boumans et al. (2021) Boumans et al. [2021] conducted a randomized controlled trial to examine how U.S. presidential elections shape the economic expectations of international experts. They found that Joe Biden's election raised 2021 growth expectations by 0.98 percentage points, though this optimism quickly diminished as uncertainty rose. This suggests that the Democratic-Republican growth gap is not only a domestic reality but also an international expectation.

While prior research has largely focused on macroeconomic indicators, there is limited work exploring how political affiliation influences entrepreneurship. Nanda (2008) Ramana [2008] found that tax reforms increasing the cost of external financing can deter entrepreneurship, especially for individuals with limited wealth. However, few studies address how presidential affiliation directly affects business formation. My study seeks to fill this gap by investigating the relationship between presidential political affiliation and new business creation.

Methodology

To examine the relationship between new business formation and the political affiliation of the incumbent US president, I employ the OLS method. The indepedent variable, political affiliation, is captured by a dummy variable where 1 represents a Democrat and 0 represents Republican. The dependent variale, new business formaion, is measured by the establishment entry rate, which is computed by dividing the number of new businesses formed in a given year by the total number of active businesses in that year.

To empirically assess the relationship of interest, I first regress the political affiliation on the establishment entry rate without controls.I then run a multivariate regression controlling for real GDP growth, population growth, corporate profit after tax adjusted by real GDP, and unemployment rate.

An issue of concern in the model is multicollinearity, where corporate profit may be correlated with political affiliation of the incumbent president. The regression of corporate profit against president party, together with existing literature, validates this issue: an incumbent Democrat president is associateed with 0.014 units higher in adjusted corporate profit, which is statistically significant at 0.16 level.

```
import pandas as pd

import matplotlib.pyplot as plt

df_president = pd.read_csv('/home/idies/workspace/Temporary/ericwangzixu/scratch/as.180.369/contrib/ezwa

df_president = pd.read_csv('/home/idies/workspace/Temporary/ericwangzixu/scratch/as.180.369/contrib/ezwa
from statsmodels.formula.api import ols
model3 = ols('adjusted_corporate_profit ~ president_party', data= df_president)
fit3 = model3.fit()
fit3.summary()
```

Dep. Variable:	adjusted_corporate_profit	R-squared:	0.047
Model:	OLS	Adj. R-squared:	0.024
Method:	Least Squares	F-statistic:	2.066
Date:	Wed, 20 Nov 2024	Prob (F-statistic):	0.158
Time:	14:33:42	Log-Likelihood:	88.968
No. Observations:	44	AIC:	-173.9
Df Residuals:	42	BIC:	-170.4
Df Model:	1		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	0.0525	0.007	7.850	0.000	0.039	0.066
president_party	0.0143	0.010	1.437	0.158	-0.006	0.034

Omnibus:	12.901	Durbin-Watson:	0.084
Prob(Omnibus):	0.002	Jarque-Bera (JB):	4.706
Skew:	0.517	Prob(JB):	0.0951
Kurtosis:	1.777	Cond. No.	2.53

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

1 Results

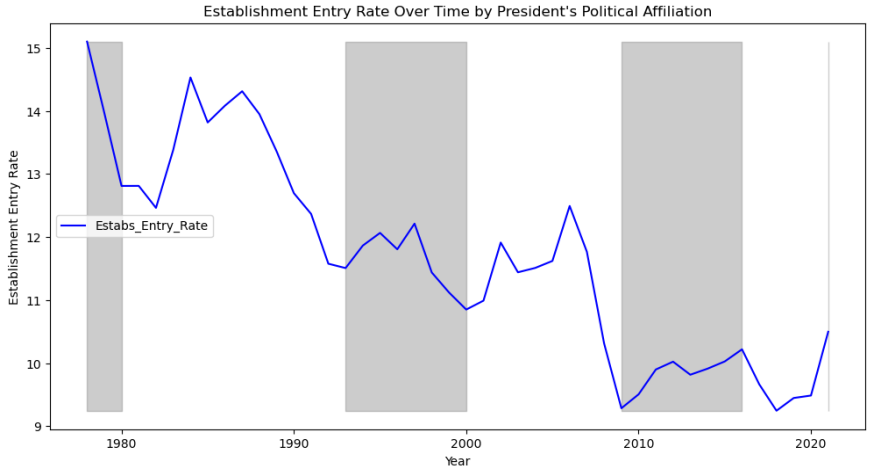
Before conducting the regression analysis, I visualized the new business formation rate over time, annotating the years under Democratic presidencies with shading. From 1978 to 2021, there is a general decline in the rate of new business formation. Visually, there appears to be no direct correlation between the president's political affiliation and new business formation rates. However, a noteworthy observation is the spike in new business formation that occurs immediately after a transition from one political party to another in the presidency. I hypothesize that this pattern emerges because new presidents typically introduce a range of new policies upon taking office, some of which may be perceived as favorable by entrepreneurs. Subsequently, the intensity of policy announcements tends to decrease, and some previously enacted policies may prove less effective than anticipated.

In the first model, the result shows that the president being a Democrat is associated with a 0.85 units decrease in the establishment entry rate, which is statistically significant at 0.1 level.

In the second model, the result shows that controlling for these variables, the president being a Democrat is associated with a 0.43 units decrease in the establishment entry rate, but such coefficient is not statistically significant at 0.1 level.

My findings suggest that Democrat presidents is negatively associated with amount of new business formations. Potential explanations might be that Democrat presidents create a more stringent regulatory environment and place more emphasis on social welfare and redistribution. However, understanding whether these mechanisms hold true require further empirical analysis. Moreover, the fact that controlling for some economic variables makes the coefficient insignificant implies that economic factors may outweigh political influences in their impact on entrepreneurship. With that said, we need additional models addressing multicollinearity and endogeneity problems to validate this claim.

```
# Sort data by year if not already sorted
df_president.sort_values('year', inplace=True)

# Initialize the plot
plt.figure(figsize=(12, 6))

# Plotting the line for 'estab_entry_rate'
plt.plot(df_president['year'], df_president['estabs_entry_rate'], label='Estabs_Entry_Rate', color='blu

# Adding shaded areas for Democratic years
# Assuming 'political_party' is 1 for Democrats, 0 for Republicans
democratic_years = df_president['president_party'] == 1
plt.fill_between(df_president['year'], df_president['estabs_entry_rate'].min(), df_president['estabs_en
                 where=democratic_years, color='grey', alpha=0.4)

# Adding labels and title
plt.title('Establishment Entry Rate Over Time by President\'s Political Affiliation')
plt.xlabel('Year')
plt.ylabel('Establishment Entry Rate')
plt.legend()

# Show the plot
plt.show()
```




```
model = ols('estabs_entry_rate ~ president_party', data= df_president) # create linear model
fit = model.fit()
fit.summary()
```

Dep. Variable:	estabs_entry_rate	R-squared:	0.071
Model:	OLS	Adj. R-squared:	0.049
Method:	Least Squares	F-statistic:	3.229
Date:	Wed, 20 Nov 2024	Prob (F-statistic):	0.0795
Time:	14:33:43	Log-Likelihood:	-81.300
No. Observations:	44	AIC:	166.6
Df Residuals:	42	BIC:	170.2
Df Model:	1		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	12.0507	0.321	37.566	0.000	11.403	12.698
president_party	-0.8550	0.476	-1.797	0.080	-1.815	0.105

Omnibus:	0.629	Durbin-Watson:	0.200
Prob(Omnibus):	0.730	Jarque-Bera (JB):	0.718
Skew:	0.250	Prob(JB):	0.698
Kurtosis:	2.623	Cond. No.	2.53

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

```
model2 = ols('estabs_entry_rate ~ president_party + real_gdp_growth + adjusted_corporate_profit + popula
fit2 = model2.fit()
fit2.summary()
```

Dep. Variable:	estabs_entry_rate	R-squared:	0.765
Model:	OLS	Adj. R-squared:	0.734
Method:	Least Squares	F-statistic:	24.71
Date:	Wed, 20 Nov 2024	Prob (F-statistic):	5.36e-11
Time:	14:33:43	Log-Likelihood:	-51.091
No. Observations:	44	AIC:	114.2
Df Residuals:	38	BIC:	124.9
Df Model:	5		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	13.8104	1.331	10.376	0.000	11.116	16.505
president_party	-0.4285	0.282	-1.517	0.137	-1.000	0.143
real_gdp_growth	19.4957	5.614	3.473	0.001	8.131	30.860
adjusted_corporate_profit	-40.7818	6.196	-6.582	0.000	-53.325	-28.238
population_growth	-0.7546	0.871	-0.866	0.392	-2.518	1.009
unemployment_rate	0.0979	0.071	1.377	0.177	-0.046	0.242

Omnibus:	4.018	Durbin-Watson:	0.735
Prob(Omnibus):	0.134	Jarque-Bera (JB):	3.003
Skew:	0.618	Prob(JB):	0.223
Kurtosis:	3.329	Cond. No.	385.

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Conclusion

While the impact of the political affiliation of U.S. presidents on macroeconomic indicators like GDP growth and stock returns has been extensively explored, the influence on new business formation has received less attention. In this paper, I utilized data from the Business Dynamics Statistics to conduct a multivariate regression analysis to investigate this relationship. After controlling for variables such as real GDP growth, population growth, corporate profits after tax adjusted by real GDP, and the unemployment rate, my findings indicate that having a Democratic president correlates with a 0.43 unit decrease in the business establishment entry rate. However, this coefficient is not statistically significant at the 10% level, suggesting that no definitive relationship exists between a president's political affiliation and entrepreneurial activity. Future research can focus less on political affiliation itself and more on how specific policies influence new business formation. As the U.S. approaches a presidential transition in 2025, this topic may continue to generate interest and scholarly debate.

Appendix

Here I want to have some additional regressions I do not want to put in the main body.

References

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