"U.S. POPULISM AND CURRENCY RISK PREMIA"

Ilias Filippou[1] Arie E. Gozluklu[2] My T. Nguyen[1] Mark P. Taylor[1,3]

[1]Washington University in St. Louis
[2]Warwick Business School
[3]Centre for Economic Policy Research

EEA, August 31, 2023

MOTIVATION

- Recent literature on cross-sectional **Currency Return Predictability**:
    - $\mathbb{E}_t[\frac{S_{t+1}}{S_t}] = \frac{i_t}{i_t^*} - i_t cov_t(M_{t+1}, \frac{S_{t+1}}{S_t})$
        - M distribution and risk-premia must be *time-varying* (e.g., Fama, 1984; Lustig et al., 2011)
        - Permanent component of M plays a crucial role (Chernov and Creal, 2023; Sandulescu et al., 2021; Alvarez and Jermann, 2005)
    - Determinants of currency premia: currency crash risk (Brunnermeier, Nagel,and Pedersen, 2008), FX volatility (Menkhoff et al., 2012a), country size (2012), FX liquidity (Mancini et al., 2013), sovereign risk (Della Corte et al., 2018), **gravity** (Lustig and Richmond, 2020), global imbalances (Della Corte et al., 2016), macro risk (Filippou and Taylor, 2017), bond liquidity (Lee and Jung, 2020), credit risk (Della Corte et al., 2020), global equity market and financial cycle (Panayotov, 2020; Rey, 2015)

MOTIVATION

- BUT little progress on the role of **political risk/environment** for currency returns
    - global political risk explains the cross-section of currency momentum (e.g., Filippou et al., 2018)
    - Trump tweets –related to macro policy, trade, and FX content– reduce speculative trading, with a corresponding decline in trading volume and volatility, and induce a bias reflecting Trump's (optimistic) views on the U.S. economy (Filippou et al., 2023)
    - U.S. presidential cycles can predict dollar-based exchange rate returns (e.g., Della Corte and Fu, 2021)
- Rapidly growing number of papers investigating populism, in political science and economics literature (e.g., Guriev and Papaioannou, 2022; Rodrik, 2018)

THEORETICAL MOTIVATION

- Pastor and Veronesi (2021):
  - Agents in two countries, U.S. and RoW **dislike inequality** within their country
  - Under **globalization**: an increase in aggregate consumption/output and domestic inequality in the U.S.
  - Under **autarky**: a **decrease** in **aggregate consumption/output** and domestic inequality in the U.S.
  - A presidential candidate is defined as a populist if he or she promises to end globalization
  - Market expectation of the U.S. shifting from an integrated to autarkic regime (proxied by our Populist Rhetoric Index) is a **relevant state variable** affecting asset prices through the risk channel
  - We would expect our U.S. populist rhetoric indices to affect the cross-section of currency excess returns

INTRODUCTION
0000●000

U.S. POPULIST RHETORIC
0000000000

EMPIRICAL RESULTS
000

ROBUSTNESS
0

CONCLUSIONS
0

DEFINITION OF POPULISM

- A widely-cited definition:
  - Populism is 'a thin-centered ideology that considers society to be ultimately separated into two homogenous and antagonistic groups, **'the pure people'** versus **'the corrupt elite'**, and which that politics should be an expression of the volonte generale (general will) of the people' (Mudde, 2004)

- Another common feature of populism is 'anti' (Mueller, 2017), such as
  - anti-globalization
  - anti-immigration
  - anti-austerity
  - anti-establishment

- Considering populism as an **ideology** limits the ability to capture the time variation of this concept

- We consider populism as a **political style** or **rhetoric** (e.g., Jagers and Walgrave, 2007; Bonikowski and Gidron, 2015) and focus on *media attention* to populism

CONTRIBUTION

- We extend an existing populist dictionary to capture the new form of populism via social media

- We construct a novel news-based measure of U.S. populism based on the extended dictionary

- We link US media attention to populism to **financial globalization**

- We study the cross-sectional predictive ability of populism rhetoric for currency returns

MAIN RESULTS

- Our empirical findings show that media attention to U.S. populism is **priced** in the cross-section of currency excess returns

- Currencies that perform well (badly) when media attention to U.S. populism is high yield low (high) expected excess returns

- Investors require a **risk premium** for holding currencies that underperform in times of rising U.S. populism

- **Financial segmentation** explains why friction to globalization in the form of populism affects the cross-section of currency returns.

- **Fund flows** are most sensitive to U.S. populism

ROAD MAP

- U.S. Populist Rhetoric (APR) Index
- Dataset
- Currency Portfolios
- Asset Pricing Tests
- Robustness and Other Specification Tests
- Conclusions

Bonikowski and Gidron (2015)'s Populist Dictionary

Unigrams
bureaucrat OR millionaire OR baron
OR venal OR crooked OR unresponsive OR arrogant

Bigrams
special interests OR Wall Street OR Main Street
OR big corporations OR ordinary taxpayer
OR wealthy few OR professional politician
OR big interest OR big money OR Washington elite
OR rich friend OR power monger OR power grabbing
OR easy street OR privileged few
OR forgotten Americans OR long nose

Trigrams
top 1 percent OR average American taxpayer

Four-grams+
government is too big OR government that forgets the people

This dictionary does not contain some economically relevant terms, e.g., tariffs, tax cuts, and immigration which one would expect in a populist narrative (Rodrik, 2021)

NEW DICTIONARY OF POPULISM 2.0

- Social media has been extensively used as a campaign tool in modern U.S. politics, especially by populist candidates (Bode et al., 2020)
- We obtain an archive of Donald Trump tweets from the account @realDonaldTrump
- Data Period: 2015:06 - 2019:08
- We implement Bi-term topic model (BTM) approach

METHOD: BI-TERM TOPIC MODEL (BTM) APPROACH

- **BTM model** developed by Yan et. al (2013) to discover the topic of our corpus
- Specifically designed for corpus of **short texts**, outperforming conventional methods such as LDA or LSA
- **Key intuition**: The corpus consist of a mixture of topics, and each biterm is drawn from a specific topic
- Two sets of **input** required:
    - Corpus: Trump Tweets (after various text - cleaning steps)
    - Number of topics: 10
- Two sets of **output** generated:
    - Top keywords and their distribution for each topic
    - Probability of the topic given the biterms

Top Keywords from Populism Topics

INTRODUCTION
0000000

U.S. POPULIST RHETORIC
0000●00000

EMPIRICAL RESULTS
000

ROBUSTNESS
0

CONCLUSIONS
0

(New) Populism 2.0 Dictionary

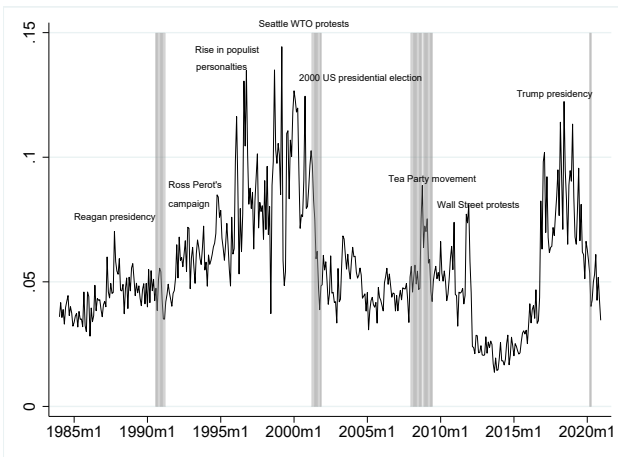|	
Unigrams	tariffs OR maga
Bigrams	tax cuts OR fake news OR border security OR illegal immigration OR American first
Trigrams	fake news media
Four-grams+	make America great again

U.S. Aggregate Populist Rhetoric (APR) Index

- **APR**: monthly counts of populist articles divided by the number of U.S. politics articles as in Baker et al. (2016)
- Data Period: 1984:01-2020:12
- Source: Factiva
- Newspapers: The New York Times
- Dictionary: 26 populist terms in the dictionary constructed by Bonikowski and Gidron (2015) and 9 populist terms in the new Populism 2.0 Dictionary
- "Populist" Articles: All articles containing at least one of the terms
- Shorter sample from 2000:01 with 5 newspapers: The New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times

U.S. AGGREGATE POPULIST RHETORIC (APR) INDEX

INTRODUCTION
0000000

U.S. POPULIST RHETORIC
0000000●00

EMPIRICAL RESULTS
000

ROBUSTNESS
0

CONCLUSIONS
0

DATASET

- **Foreign Exchange Data**
  - Daily spot and 1-month forward exchange rates
  - Data period: 1984:01-2020:12
  - Source: WM/Reuters and Barclays Bank International (BBI) *via* Datastream
  - Frequency: Monthly (*end-of-month* series as in Burnside et al. (2011a)
  - Our sample includes Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Europe, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Kuwait, Malaysia Mexico, Netherlands, Norway, Philippines, Poland, Portugal, Russia, Saudi Arabia, Singapore, South Korea, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Ukraine and United Kingdom.
  - Transaction costs: bid, middle and ask quotes are employed

CURRENCY EXCESS RETURNS

- Going long the foreign currency at time t in the forward market, while offsetting the position in the spot market at time $t + 1$:

$$rx_{t+1} = f_t - s_{t+1} = f_t - s_t - (s_{t+1} - s_t)$$
$$\stackrel{CIP}{\simeq} (\hat{i}_t - i_t) - (s_{t+1} - s_t) \tag{1}$$

- f_t (s_t) denote the log forward (spot) rate expressed in units of foreign currency per USD.
- $\hat{i}$ (i) is the foreign (domestic) risk-free rate.

INTRODUCTION
0000000

U.S. POPULIST RHETORIC
000000000●

EMPIRICAL RESULTS
000

ROBUSTNESS
○

CONCLUSIONS
○

CAPTURING POPULISM

- **Populism betas**
  - Estimate the **exposure** of each currency to APR Index by regressing individual currency excess returns at time t on a constant and APR Index using a 60-month rolling window
  - Link populism betas to financial globalization/segmentation controlling for country size, geographical distance, institutional quality

- **Populism-sorted Portfolios**:
  - Currencies are sorted into three portfolios based on their exposure to APR or IR indices.
  - P1: currencies with low APR betas
  - P5: currencies with high APR betas
  - $LMH_{APR,t+1}$: a portfolio which is long (short) on currencies with low (high) APR betas (i.e. $LMH_{APR,t+1} = P1 - P5$).

POPULISM BETAS AND FINANCIAL GLOBALIZATION
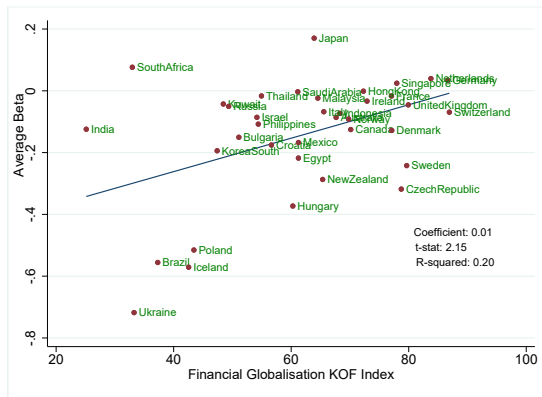
The figure shows the scatter plot of the average beta APR (New York Times) and KOF financial Globalization Index (Gygli et al., 2019)

POPULISM PORTFOLIOS

Panel A: Full Sample: New York Times	P_1	P_2	P_3	P_4	P_5	LMH_{APR}
Mean	3.09	2.90	0.60	0.12	-0.10	3.19
	[2.19]	[2.11]	[0.43]	[0.10]	[-0.07]	[2.19]
Std	8.23	8.01	8.15	7.54	7.82	8.49
Skewness	-0.53	-0.09	-0.50	-0.56	-0.72	-0.16
Kurtosis	4.86	4.46	5.28	5.45	6.16	4.37
Exchange rate change	-0.36	-2.22	0.68	1.43	3.03	-3.40
	[-0.25]	[-1.56]	[0.46]	[1.04]	[2.15]	[-2.40]
Forward discount	2.72	0.68	1.28	1.56	2.94	-0.22
	[6.96]	[3.33]	[4.28]	[6.10]	[9.47]	[-0.37]
SR	0.38	0.36	0.07	0.02	-0.01	0.38
β^{APR}	-0.47	-0.20	-0.06	0.07	0.30	

Panel B: Recent Sample: Five Newspapers	P_1	P_2	P_3	P_4	P_5	LMH_{APR}
Mean	4.48	1.81	0.41	1.41	-0.73	5.21
	[2.20]	[0.89]	[0.22]	[0.87]	[-0.43]	[2.63]
Std	8.63	8.63	7.80	6.85	7.18	8.41
Skewness	-0.53	-0.09	-0.50	-0.56	-0.72	-0.16
Kurtosis	4.86	4.46	5.28	5.45	6.16	4.37
Exchange rate change	0.30	-1.00	0.47	0.06	2.93	-2.63
	[0.14]	[-0.49]	[0.25]	[0.03]	[1.76]	[-1.38]
Forward discount	4.79	0.81	0.87	1.47	2.24	2.55
	[7.79]	[3.85]	[3.75]	[4.42]	[5.31]	[2.98]
Exchange rate change (New York Times)	0.11	-1.82	0.22	1.63	2.62	-2.51
	[0.05]	[-0.92]	[0.12]	[0.98]	[1.40]	[-1.32]
Forward discount (New York Times)	4.43	0.79	1.11	1.25	2.66	1.78
	[7.17]	[4.57]	[4.49]	[4.91]	[6.04]	[2.57]
SR	0.52	0.21	0.05	0.21	-0.10	0.62
β^{APR}	-0.58	-0.33	-0.17	-0.01	0.24	

CROSS-SECTIONAL REGRESSIONS

Panel A: Full Sample: New York Times	(1)	(2)	(3)	(4)
λ_{APR}	-0.006***	-0.006***	-0.005**	-0.006***
	(-2.94)	(-2.64)	(-2.23)	(-2.64)
$\lambda_{Volatility}$		0.238*		0.274*
		(1.85)		(1.94)
$\lambda_{Illiquidity}$			-0.000	-0.000
			(-0.77)	(-0.16)
Constant	0.001	0.000	-0.000	-0.000
	(0.69)	(0.48)	(-0.23)	(-0.50)
Obs	9,868	9,020	9,025	9,020
R^2	0.16	0.22	0.27	0.32

Panel B: Recent Sample: Five Newspapers	(1)	(2)	(3)	(4)
λ_{APR}	-0.012***	-0.008**	-0.007**	-0.007**
	(-3.12)	(-2.18)	(-2.06)	(-2.04)
$\lambda_{Volatility}$		0.131		0.143
		(1.06)		(1.14)
$\lambda_{Illiquidity}$			0.000	0.000
			(0.09)	(0.49)
Constant	0.001	0.001	0.000	0.000
	(0.53)	(0.56)	(0.32)	(0.14)
Obs	6,665	5,843	5,845	5,843
R^2	0.13	0.17	0.21	0.25

ROBUSTNESS AND OTHER SPECIFICATION TESTS

- Alternative measures of segmentation/globalization via model-free estimation of (permanent component) of M (Sandulescu et al., 2021) or using equity data (Barrot et al, 2019)
- We control for additional factors that drive the cross-section of currency returns, such as dollar, carry, and momentum trade factors
- We also conduct Fama-Macbeth asset pricing tests and three-pass Fama-Macbeth regressions (Giglio and Xiu, 2021)
- Our results are robust when we consider *realistic* transaction costs
- Populism betas and trading activity of market participants (banks, **funds**, corporates) via CLS order flow data

CONCLUSIONS

- We construct a novel index of U.S. populism
- The APR Index spikes around key events featuring populism in the U.S. politics, such as Seattle WTO protests, the Tea Party movement, and the 2016 U.S. presidential election
- We show empirical evidence that U.S. populist rhetoric is **priced** in the cross-section of currency returns, which suggests that investors require high risk premium for holding currencies underperforming in times of rising U.S. populist rheotric
- Our empirical findings are in line with theoretical framework in Pastor and Veronesi (2021)