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JEL Classification: G11, G12, G14, G32

Keywords: populism, Foreign exchange market, textual analysis

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"There is a historic battle going on across the west, in Europe, America, and elsewhere. It is globalism against populism. And you may loathe populism, but I'll tell you a funny thing. It is becoming very popular! And it has great benefits." Farage (2020)

1 Introduction

Cambridge University press chose 'Populism' as the Word of the year in 2017 based on the word-searches during the year, highlighting its significance at both local and global contexts. This confirms the enormous public attention surrounding this topic following a range of recent unexpected political events around the world, such as the election of Donald Trump as the 45th president of the U.S. or the UK's vote to exit from the European Union. There has been a rapidly growing number of papers investigating populism and its consequences, mostly in the political science and economics literature. However, its effect on financial markets remains unexplored.[1] One of key challenges to conduct empirical work remains to be quantifying this rather elusive concept.

When it comes to asset markets, foreign exchange market is a natural starting point: currencies issued on behalf of sovereign entities are intertwined with politics (e.g., the effect of Brexit on the British Pound), and it is the biggest asset market in the world in terms of trading volume. More than 6.6 trillion USD are traded on average everyday in this market based on the BIS (2019) survey. This high volume of trading together with its globally integrated characteristic makes the foreign exchange market particularly sensitive to global events. Political climate in the U.S. should be of particular relevance for this market due to the size and importance of the U.S. economy as well as the intensive use of USD as a vehicle currency. The victory of Donald Trump in the recent 2016 U.S. presidential election gives us a perfect example showing the extent to which U.S. politics in general, and U.S. populism

[1] One exception is a recent theory paper by Pastor and Veronesi (2018) which we discuss in detail to motivate our empirical analysis.

in particular can impact the foreign exchange market. Following the election outcome, the Mexican Peso hit its lowest performance against the USD in 20 years. However, some currencies such as British Pound showed resilience against USD, reaching its best fortnight performance in eight years at some point during that time period. This motivates us to investigate the question as to how U.S. populism, which is a growing political tendency is linked with cross-sectional currency excess returns.

The main contribution of our paper to the literature is twofold. First, we construct a novel index of U.S. populism by assessing the overall populist rhetoric reported by U.S. leading newspapers. There are some ongoing large-scale projects trying to quantify populism by measuring populist characteristic of specific political leaders based on campaign speeches (TeamPopulism 2019 Project), or the demand for populism based on vote shares for populist leaders or parties (Bayerlein, Funke, and Trebesch 2019). We differentiate our work from those projects as we aim to assess the populist rhetoric in the U.S. politics in media coverage, not populist characteristic of any particular political leader or party. Second, to the best of our knowledge, our paper is the first major empirical work to investigate the link between populism and the foreign exchange market. We show that U.S. populist rhetoric is priced in the cross-section of currency excess returns due to heterogenous sensitivity to USD valuation in times of rising populist rhetoric. We explain this heterogeneity via USD denominated debt issued by developing countries and U.S. assets held by developed economies.

Although 'populism' has become the catchword in current global affairs, it is not easy to define. In fact, despite being a popular theme in political science for decades, a universally accepted definition is still open to debates. The term 'populism' comes from the Latin word 'populus', which means 'the people'. Mudde (2004) proposes a widely cited definition describing populism as '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 according to which politics should be an expression of the volonté

générale (general will) of the people. Based on this definition, as it is a thin ideology, populism can be combined with other thicker ideologies such as socialism, nationalism, and communism. It can also be found in all ideological cleavages, including left or right wing politics. It is the interpretation of the 'elite' that differentiates left-wing populism and right-wing populism. While left-wing populism typically classifies groups based on class and therefore be inclined to attack economic elites, right-wing populism typically classifies groups as a nation and therefore the target of their attacks should be current establishment and immigrants (Kriesi 2014). Similarly, in a more recent work, Müller (2017) highlights a prominent feature of populism, which is 'anti', such as anti-pluralist, anti-establishment, anti-globalisation, anti-immigration...

Although the 'us versus them' element in Mudde's definition is generally agreed upon, a number of papers propose some limitations of defining populism as an ideology (Gidron and Bonikowski 2013, Aslanidis 2016). Populist characteristic of political actors or parties is likely to vary over time, whereas their ideologies are much more stable. Considering populism as an ideology therefore limits researchers' ability to study the time variation of this concept. Hence, we follow Jagers and Walgrave (2007), and Bonikowski and Gidron (2015) to consider populism as a political style or rhetoric.

We follow the same methodology as in Baker, Bloom, and Davis (2016) to construct our Aggregate Populist Rhetoric (APR) Index. In particular, we rely on the dictionary containing populist terms constructed by Bonikowski and Gidron (2015) to identify populist articles, which contain terms in this dictionary from five leading U.S. newspapers. We then scale this raw counts of populist articles by total number of articles belonging to U.S. politics section for each individual newspapers. The APR Index is constructed as the average of five individual newspapers, weighted by their circulation figures. Our 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 then implement

LDA Algorithm to discover topics conveyed in populist articles. This step allows us to decompose the APR Index into six sub-indices, each of which corresponding to one of the topics identified by LDA Algorithm. Of those sub-indices, we are particularly interested in the International Relations (IR) component in the context of foreign exchange market.

We then show empirical evidence that U.S. populist rhetoric, proxied by our APR Index and the International Relation sub-index is negatively priced in the cross-section of currency excess returns. Currencies with lowest U.S. populist rhetoric beta yield high expected excess returns, while currencies with highest U.S. populist rhetoric beta yield low expected excess returns. A trading strategy that goes short currencies at the highest U.S. populist rhetoric beta tercile and long currencies at the lowest U.S. populist rhetoric beta tercile can generate a statistically significant average excess returns of up to 5.27% (p.a.) with a Sharpe ratio of 0.82. We rationalise our findings based on the theoretical framework proposed by Pastor and Veronesi (2018). As a shift to populism is associated with a decrease in consumption/output for U.S. investors, their marginal utility increases in times of rising populism. Currencies with negative U.S. populist rhetoric beta yield low excess returns in times of rising U.S. populist rhetoric, hence they are considered relatively risky assets by U.S. investors. By contrast, currencies with positive exposure to U.S. populist rhetoric beta yield high excess returns when U.S. populist rhetoric is high, so they are considered as hedge against U.S. populist rhetoric by U.S. investors. Therefore U.S. investors demand higher expected returns for holding currencies with low U.S. populist rhetoric beta, and are willing to pay higher prices and accept lower returns from currencies with high U.S. populist rhetoric beta. The pricing results are particularly strong in the post-crisis period, and around gubernatorial elections in swing states. Moreover, we show that a trading strategy based on the sensitivity to U.S. populist rhetoric provides diversification benefits to currency investors on top of the conventional trading strategies such as carry and momentum.

The rest of the paper is structured as follows. Section 2 summarizes related literature. Section 3 outlines theoretical framework for our empirical works in details. Section 4 describes the methodology implemented to construct the APR Index and associated sub-indices. Section 5 discusses empirical findings between U.S. populist rhetoric and cross-section of currency returns. Section 6 offers robustness checks. Section 7 concludes.

2 Literature Review

Our paper is related to several strands of literature. Firstly, it is closely related to the political science literature investigating different methodologies to measure populism. The traditional approach is to apply the populist label without any systematic empirical justifications (Hawkins 2009). There are clearly issues associated with this approach, therefore scholars have made significant breakthroughs by not only providing justifications, but also attempting to assess the of populism on a scale basis rather than classify political parties or actors as either 'populist' or 'non-populist'. However, it also leads to another debate over how to develop a suitable methodology to measure populism. Textual analysis has been a popular method implemented to measure populism, which is natural as the input used to assess populism is normally spoken or written statements made by political actors. Majority of papers rely on classical manual textual analysis (Jagers and Walgrave 2007, Rooduijn and Pauwels 2011, Balcere 2014, Bos and Brants 2014) to measure populism of political parties and leaders for a wide range of countries such as the Netherlands, Latvia, France, and the UK. It typically involves human reading the documents under analysis, with codebooks, and deciding either a score of populism or the 'populist – non populist' label. Labour intensive nature of human coding significantly limits the sample size, and also raises reliability issues as the process is dependent on coders' subjective judgements. Therefore a growing number of papers have shifted their approach to computer based textual analysis. Rhodes and Johnson (2017) use a dictionary to identify statements mentioning the wealthy from Democratic presidential campaigns speeches, then create an index of frequency of these statements over time, and analyse the tone of these statements. Although this study addresses the issue of researcher bias and small sample size associated with manual textual analysis, its limitation is the focus on left-wing populism only. Pauwels (2011) is one of the first studies to follow a dictionary based approach to measure populism of Belgian parties. This study relies on the dictionary developed by Laver and Garry (2000), which

was based on manifestos of UK political parties. This raises questions as to whether it is suitable to apply to Belgian context. Rooduijn and Pauwels (2011) develop a dictionary containing anti-elitism words, and count the frequency of these words as an index of populism. Bonikowski and Gidron (2015) also develop a dictionary of populist terms based on more than 2,400 U.S. presidential campaign speeches between 1952 and 1996. Employing a sophisticated algorithm to construct this dictionary, the authors are able to capture both general and U.S. specific context words, with words ranging from unigram to four-grams+. They also validate their dictionary by manually reading 40.1% of their total dataset and hand-coding excerpts from 890 speeches. It is these merits of their populist dictionary that make it an ideal choice for our purpose of searching for newspapers articles with populist rhetoric.

Our index of populism, however, deviates from previous works using dictionary based method in several ways. Firstly, we do not aim to measure populism of any particular party or leader, but the overall populist rhetoric used in U.S. politics. Secondly, choosing newspapers articles as documents under analysis allows us to get a time-varying index of populism at higher frequency and also enables us continuously tracking the time-variation in populist rhetoric. Previous studies using campaign speeches, or manifestos can only capture features of populism during pre-election time. It can be argued that the emergence of social media makes Facebook posts and Tweets appealing alternatives as in Ernst, Engesser, Büchel, Blassnig, and Esser (2017). However, archives of newspapers articles on Nexis database allow us to have a sample going back as far as 1990s, which is not the case for Facebook posts and Tweets.

Our paper is also related to papers studying populism in economics literature. The first strand of papers propose reasons for the rise of populism from economic perspective. Acemoglu, Egorov, and Sonin (2013) build a theoretical model, highlighting the weakness of democratic institutions and the potential nonelectoral power of the elite as driving

forces of populist politics. In a more recent work, Rodrik (2018) suggests that the shock of globalisation is one of the reasons leading to political backlash, by increasing domestic inequality. Globalisation creates gaps in society, between 'capital and labor, skilled and unskilled workers, employers and employees, globally mobile professionals and local producers, industries/regions with comparative advantage and those without, cities and the countryside, cosmopolitans versus communitarians, elites, and ordinary people'. This explanation has been supported by empirical evidence (Guiso, Herrera, and Morelli 2017, Colantone and Stanig 2018). However, a different view is found in Inglehart and Norris (2016). They suggest that the recent rise in populism is less to do with economic reason, but more to do with cultural reason. The spread of progressive values such as environmental protection, acceptance of gender and racial equality, leads to increased approval of diverse lifestyles, religions, cultures, international cooperation. This has stimulated a cultural backlash among people who feel threatened by these changes.

Another strand of literature studies the effects of populism on the economy. The impact of populism on macroeconomics has been dated back since the work of (Sachs 1989, Dornbusch and Edwards 2007). They define populism as 'an approach to economics that emphasises growth and income redistribution, and deemphasises the risks of inflation and deficit finance, external constraints and the reaction of economic agents to aggressive non-market policies'. To be more specific, the authors associate populism with economic policies such as budget deficits to stimulate aggregate demand, nominal wage increase, and exchange rate control or appreciation. Using theoretical explanations, backed up with practical case studies of Chile and Peru, they suggest that populist policies have different impacts on the economy depending on the phases. In the first phases, they are successful as objectives of improved output growth and real wages and employment are achieved. However, in the long run, these policies end up hurting groups of people that were supposed to be beneficiaries. In a recent paper, Rodrik (2018) suggests that economic populism

involved populists rejecting restraints on the implementation of economic policy. He further explains that delegation to independent agencies occurs in two different contexts, the first one is to prevent the majority from harming itself in the future, and the second one is to cement a redistribution arising from a temporary political advantage for the longer term. In fact, economic populism to deal with the former context is desirable. For example, global trade agreements have been shaped by special interests, such as multinational corporations, financial institutions for their benefits. In this case, returning this policy autonomy to the domestic government may be desirable. Given the close link between asset prices and macroeconomic performance, we expect populism to affect asset prices as well.

In fact, the link between populism and asset prices has been established in Pastor and Veronesi (2018). Their theoretical model, which is discussed in more details in the next section, suggests that U.S. populism is a relevant state variable affecting asset prices, including bonds and stocks. To the best of our knowledge, there is no published empirical work exploring the link between populism and asset prices, in particular currency returns. Therefore, our work provides supporting evidence for theoretical framework of Pastor and Veronesi (2018) regarding populism and asset prices by establishing empirical evidence between populism and the cross-section of currency excess returns.

The effects of media coverage on asset prices have been extensively studied in the literature. There are two main theories providing explanations for the link between media coverage and asset allocation decisions. The first is the information view, which states that media coverage helps the stock prices to incorporate the new information more rapidly, which is supported by empirical evidence by Peress (2014). To be more specific, the author examines the stock return performance under periods of media strikes and finds a decrease in the trading volume during these periods, the volatility, and the dispersion of stock return. It provides the evidence that the media help the market to be more efficient due to the dissemination of the information across investors, and thus the rapid incorporation of

the new information in the prices. On the other hand, based on the salient view, media coverage merely shifts investor attention across securities, resulting in a transitory increase in investors' demand for salient stocks covered in the news. This behavior creates an upward pressure to stock prices demonstrating an investor overreaction to salient news (Huberman and Regev 2001; Tetlock 2007; Heston and Sinha 2014). Existing papers have studied various aspects of news and asset prices. Dang, Moshirian, and Zhang (2015) examine the common trends in the news around the world based on 41 countries from 2000 until 2009. The authors find that news commonality is positively related to liquidity and stock return commonality. Soo (2018) shows that an index of rhetoric based on local housing news in the U.S. accounts for an additional 70% of the variation in national house prices beyond observed fundamentals. Our paper differentiates from existing papers by capturing a novel aspect of media coverage, which is the populist rhetoric.

Our paper is also related the broad interdisciplinary research investigating the effects of politics on asset prices. The first strand of literature focuses on the movements of stock returns around election events. Sattler (2013) suggests that stocks decrease considerably after the election of a left party, and increase after the election of a right party, in countries where political constraints are low. The second strand of literature investigates the link between the political parties in power and performance of financial markets in longer term, not just around the election event. Santa-Clara and Valkanov (2003), examine the performance of stock market during Democratic and Republican presidencies between 1927 and 1998. They find the presidential puzzle, which shows that the excess return of stocks is higher during the time Democratic president is in power and differences in returns cannot be explained by common factors. Booth and Booth (2003) also confirm this pattern for small stock portfolio, but it is not the case for large stock portfolio. Other studies also find that this presidential puzzle exists in other countries outside the U.S., such as Germany (Döpke and Pierdzioch 2006), New Zealand (Cahan, Malone, Powell, and Choti 2005),

Australia (Worthington 2009). Compared to these existing papers, our paper is novel in the sense that we aim at capturing a narrow aspect of politics, which is populism.

Our paper is also related to previous works applying text-based methodology to construct economic or political indicators. Baker et al. (2016) construct economic policy uncertainty indices by counting the number of uncertainty related words in newspapers articles. Caldara and Iacoviello (2018) also follow a similar methodology but their interest is in a different type of risk, which is geopolitical risk. None of these papers particularly focus on the rising political tendency in the form of populist rhetoric.

Last but not least, a vast literature has examined the foreign exchange predictability in the cross-section of currency excess returns. The predictability has been shown using investment strategies, such as carry (Lustig, Roussanov, and Verdelhan 2011), and momentum (Menkhoff, Sarno, Schmeling, and Schrimpf 2012b). Although these papers document the predictability of currency excess returns, the fundamental forces behind are still unclear. Della Corte, Riddiough, and Sarno (2016) suggest that global imbalance is a risk factor that can be used to explain returns to carry trade. However, Barroso, Kho, Rouxelin, and Yang (2018) argue that the evidence is sensitive to the choice of test assets, and it is also not robust once controlling for financial variables. This highlights the challenge of determining market valuation of currency returns. Also taking a macroeconomic perspective, Riddiough and Sarno (2016) suggest output gap as the risk factor. Some papers suggest risk factors based on properties of FX returns, such as correlation risk (Mueller, Stathopoulos, and Vedolin 2017), and global FX volatility risk (Menkhoff, Sarno, Schmeling, and Schrimpf 2012a). From political perspective, Filippou, Gozluklu, and Taylor (2018) suggest that global political risk explains returns to momentum strategy. In this paper, we do not aim to use U.S. populist rhetoric as a risk factor to explain conventional trading strategies. Instead, we highlight that U.S. populist rhetoric is priced in the cross-section of individual currency excess returns.

3 Theoretical Framework

Our empirical work is largely motivated by the theoretical framework established in Pastor and Veronesi (2018). In their model, agents in two countries, which are the U.S. and the rest of the world (RoW) dislike inequality within their country. U.S. agents are less risk-averse than RoW agents. Under globalisation, agents in two countries trade freely, which increases not only aggregate consumption/output in the U.S. but also its domestic inequality. The reverse is the case under financial autarky, in which U.S. aggregate consumption/output decreases, but the gap between the rich and the poor is narrower. A presidential candidate is characterised as populist if he or she promises to end globalisation as soon as elected. The model suggests that when U.S. output is large enough, more than half of U.S. agents will vote for populist candidate due to their inequality aversion, which shifts the U.S. to financial autarky. Two important predictions from the model regarding populism and stock prices and bond yields are of particular importance to our paper. Regarding stock price, the model suggests that as the probability of populist victory increases, U.S. market price of risk goes down. As a result, U.S. stock market valuation increases. The intuition is as follows: Under autarky, the risk associated with U.S. output is borne by U.S. agents only, which is not the case under globalisation, in which this risk is borne by both U.S. and rest of the world (RoW) agents. As U.S. agents are assumed to be less risk averse, they demand a lower compensation for risk. Regarding bond yields, the model predicts that U.S. bond yields are low, possibly negative as anticipation for populist's victory escalates. The intuition underlying this prediction is that as moving to autarky decreases U.S. agent's consumption, marginal utility to U.S. agents is high in this case. Therefore U.S. bonds are more valuable under autarky, as they provide future consumption when its marginal utility of consumption to U.S. agents is high.

These theoretical predictions indicate that U.S. populism is a relevant state variable for asset prices through the risk channel. Pastor and Veronesi (2018) model U.S. populism as a

shift from globalisation to financial autarky. Market expectation of this outcome therefore plays a role for asset prices. We argue that our APR index, and especially International Relations sub-index, in spite of not perfectly capturing this feature, are still good observable proxies for the underlying state variable. Given that media coverage, and in particular newspapers, is an important source of information for investors, when there is a rise in populist rhetoric reported by leading newspapers, especially related to international relations, U.S. investors are likely to consider it as a signal regarding the rising probability of the U.S. economy moving from an integrated to autarkic regime.

We would expect U.S. populist tone, captured by our APR Index and IR sub-index, to affect the cross-section of currency excess returns. It is based on the key intuition that U.S. populism leads to lower U.S. consumption/output, increasing marginal utility of consumption to U.S. agents. Currencies that provide U.S. investors high excess returns in times of rising populist rhetoric are valued by investors, hence they are willing to pay higher prices, and accept lower returns from these currencies. By contrast, they demand higher excess returns to be compensated for holding currencies that underperform during rising populist rhetoric. Therefore we expect U.S. populist media tone to be negatively priced in the cross-section of currency excess returns.

4 U.S. Populist Rhetoric Index

In this section, we describe the methodology we use to construct our Aggregate Populist Rhetoric Index from leading newspapers, and introduce the latent Dirichlet Allocation (LDA) algorithm to obtain its sub-indices.

4.1 Newspapers

We rely on digital archives of five leading U.S. newspapers, including The New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times. Statistics from World Atlas in 2017 [2] suggest that these five newspapers account for around 70% of total circulation from 10 U.S. leading newspapers. Therefore, newspapers captured by our index should reach a majority of U.S. readers. The same political news may be reported differently by different newspapers, due to their political bias. To ensure diversity in terms of political bias of newspapers, we draw on both left-leaning and right-leaning newspapers. In particular, two right-leaning newspapers in our sample are the The New York Daily News, and The New York Post, whereas two left-leaning newspapers are The New York Times and The Washington Post. USA Today is considered politically neutral. The classification of political leanings is obtained from Boston University Libraries website.[3] Our index begins from January 1998, when data for all five newspapers are available in Nexis database, up until October 2018.

[2] https://www.worldatlas.com/articles/the-10-most-popular-daily-newspapers-in-the-united-states.html
[3] https://library.bu.edu/news/bias

4.2 U.S. Aggregate Populist Rhetoric Index

Our objective is to search for articles containing populist rhetoric published in these five newspapers. We define an article as populist if it falls under U.S. politics category and contains at least one term in the populist dictionary constructed by Bonikowski and Gidron (2015) either in its title or main content. To minimise the risk of finding articles incorrectly classified as populist by the algorithm (false positives), we rely on the short version of their dictionary, in which the authors have eliminated all underperforming terms. This final dictionary we use contains 26 terms ranging from uni-grams to four-grams+. There might be potential concerns that there are populist articles not detected for not containing any terms in the populist dictionary (false negatives). However, as Bonikowski and Gidron (2015) emphasise in their paper, this number is expected to be low due to their extensive search for relevant populist terms. We search for populist articles from five newspapers on Nexis database by entering 26 populist terms in the search box, and applying two index terms to filter out non-U.S. politics articles. The first index term is Public and Government Administration as subject, and the second one is United States as geography. The list of our populist terms can be found in Table 1. This allows us to obtain the count of populist articles from newspapers over our sample period.

[TABLE 1 ABOUT HERE]

Previous studies following similar methodology such as Baker et al. (2016) have pointed out a problem related to the focus on the raw counts of articles, as the volume of articles tends to vary over time and across newspapers. Therefore we are interested in the ratio of the raw counts of populist articles divided by the total number of U.S politics articles published on monthly basis. The latter can be obtained by removing all the populist terms in the search box whilst still keeping two index terms. Having constructed five individual time

series corresponding to each newspaper, we standardise each time-series by demeaning and dividing it by its standard deviation.

Based on five individual standardised time-series, our Aggregate Populist Rhetoric (APR) Index is constructed as the average of all time-series, weighted by their circulation figures. USA Today is the newspapers with highest circulation, whereas the New York Post is the least circulated among the newspapers[4]. Figure 2 shows the plot of our APR Index, and we provide its summary statistics in Table 2. We report summary statistics of both APR Index and its change (i.e. ΔAPR).

[FIGURE 2 ABOUT HERE]

[TABLE 2 ABOUT HERE]

We evaluate our APR Index by uncovering events underlying their patterns. The plot of our APR Index displays a number of spikes over this sample period. The first spike is recorded during the year 2000, which reflects two notable political events featuring populism surrounding this time frame. The first event is the Seattle WTO protests on 30 November 1999, and the second event is the run-up to the 2000 presidential election with several candidates emphasising the issue of economic inequality in their campaign such as Al Gore and John McCain. Our indices exhibit some major jumps again between 2010 and 2012. This corresponds to the emergence of Tea Party movement opposing big government intervention in the economy, and the burst of Occupy Wall Street protests against financial greed and corruption. Finally, the spike of our indices during the recent period is clearly associated with the remarkable 2016 presidential campaigns, which observed two candidates from both left-wing (Bernie Sanders) and right-wing (Donald Trump) claiming to represent interests of American people. The ultimate victory of Donald

[4]Circulation figures used to construct the index can be found at https://www.worldatlas.com/articles/the-10-most-popular-daily-newspapers-in-the-united-states.html

Trump together with his populist rhetoric explain the rise in the index even after the election in November 2016.

In *Panel A* of Table 3, we report the correlation between our index and some prominent uncertainty and political risk indices in the literature. Our APR Index seems to have a mild positive correlation with VIX Index, Economic Uncertainty Indices constructed by Jurado, Ludvigson, and Ng (2015), and the Political Risk Index from International Country Risk Guide (ICRG). However, the correlation is not very high. Besides, our APR Index seems to be unrelated to Economic Uncertainty Index constructed by Baker et al. (2016), and it is negatively correlated with Geopolitical Risk Index constructed by Caldara and Iacoviello (2018). The reason behind this negative correlation is likely to be due to the fundamental differences in index construction. Geopolitical Risk Index captures events associated with wars, terrorist acts, and some events that do not feature U.S. involvement. Overall, correlation results suggest that our APR Index captures a different dimension compared to the existing economic and political uncertainty indices.

[TABLE 3 ABOUT HERE]

4.3 Topic Distribution of Populist Rhetoric Articles

In this section, we decompose the APR Index into sub-indices by discovering the topics reported in populist rhetoric articles.

4.3.1 The Latent Dirichlet Allocation (LDA) Algorithm

We choose the LDA topic modelling algorithm, which is one of theprominent latent topic models, to analyse our data. The LDA algorithm is developed by Blei, Ng, and Jordan (2003), and it has been applied in various contexts, including finance (Jegadeesh and Wu

2017, Hansen, McMahon, and Prat 2017). This method employs hierarchical Bayesian analysis to discover the semantic structure of textual documents. The intuition behind this method is that each document is represented as combinations of latent topics, and each latent topic is characterised by a distribution over words. Latent topic models infer these two hidden distributional properties based on the corpus. LDA assumes that these two distributions follow Dirichlet distribution. The base unit of our analysis is a newspaper article, which means that we have a collection of T newspapers articles. Each article is a mixture of a list of words. We denote by V the number of unique words across all T newspaper articles. Two inputs required when fitting LDA model are the corpus of documents, and the number of topics N. In order to minimise researcher's subjectivity when choosing number of topics for LDA model, a topic coherence score matrix is computed for number of topics being in the range between 5 and 20. A topic coherence score matrix is an indicator of how well the LDA model fits the data with that particular number of topics. The coherence score suggests that the optimal number of topics given our data is when N = 6.

We briefly describe the methodology implemented by LDA. Each document t is constituted by a mixture of N topics. $\theta_d = [\theta_{d,1},...,\theta_{d,N}]'$, in which $\theta_{d,n}$ is the proportion of topic n in article t. This mixture of topic proportions is assumed to follow an order -N Dirichlet distribution over the N topics.

Each topic n is a mixture of v words, and it is also assumed to follow an order-V Dirichlet distribution over the V words.

The probability of each words contributing to document t can be expressed as follows:

$\prod_{n=1}^{N} \sum_{zn} \Pr[z_n|\theta] \Pr[w_n|\beta_{zn}]$

The probability of each document t is therefore:

$\int ... \int \prod_{k=1}^{K} \Pr[\beta_k|\ \eta] \Pr[\theta|\alpha](\prod_{n=1}^{N} \Pr[z_n|\theta] \Pr[w_n|\ \beta_{z,n}])\ t\theta t\beta_1 ... t\beta_K$

Two important sets of results are the output from the LDA algorithm. The first one is the top keywords and their distribution for each topic, and the second one is the proportion of each topic in each article.

We implement LDA algorithm with the corpus being all articles containing populist rhetoric identified in the previous section. This amounts to 19,784 articles in total. We first follpw standard text cleaning procedures. In particular, we only extract the text from the articles, other information such as name of the journal, article title, length, language from raw Nexis downloaded files are all removed. All words are converted to lowercase, then all website links, email addresses are removed. We also remove English stop words [5], words with length less than 2 characters, 300 most common words, and 1000 least common words in our sample. After being tokenised into unigrams, the words are stemmed using Porter stemmer (Porter 1980), which is implemented through Python's Natural Language Toolkit.

4.3.2 Results from LDA Algorithm

The first set of results obtained from LDA algorithm is the top keywords and their distributions in each topic. For each topic n, there is a set of vectors $\hat{\beta}_n = [\hat{\beta}_{n,1},..., \hat{\beta}_{n,J}]'$, in which $\hat{\beta}_{n,j}$ is the probability that the word j defines topic n.

The full list of top 15 key words for all 6 topics can be found in Table A1. Based on those keywords, we can identify what each topic is about. For example, topic 2 contains words such as insur, price, medicar, reduc, debt..., which suggests that this topic is about Fiscal Matters. Based on key words of topic 5 such as china, terrorist, iraqi, japan..., we can identify this topic as International Relations. Similarly, the other 4 topics can be clearly identified. In particular, topic 0 covers lawsuits, topic 1 covers judiciary system, topic 3 covers election time, and topic 4 covers campaign contribution.

[5] Full list of stop words removed is available upon request

The second set of output is the proportion of topics for each article. In particular, for each article t there is a set of vectors $\hat{\theta}_t = [\hat{\theta}_{t,0}, \hat{\theta}_{t,1}, \hat{\theta}_{t,2}, \hat{\theta}_{t,3}, \hat{\theta}_{t,4}, \hat{\theta}_{t,5}]'$, in which $\hat{\theta}_{t,n}$ is the proportion of article t that is made up of topic n. Some samples of populist rhetoric articles and their corresponding classification results from LDA can be found in Appendix A.

Figure 1. International Relations

The figure reports the most important words in the International Relations Sub-index. This sub-index is constructed by multiplying the average proportion of International Relations topic across all populist rhetoric newspapers articles from 5 newspapers with the Aggregate Populist Rhetoric Index. The monthly data are between January 1998 and October 2018.

For our analysis in the next section, we are particularly interested in the sub-index corresponding to the International Relations topic. Figure 1 displays the set of words that appear more often in this topic. These words are clearly associated with the U.S. exposure to the international environment. We also report the average proportion of this topic in Figure 3. Average proportion of other topics can be found in Figure A2 to Figure A6 in the Internet Appendix.

[FIGURE 3 ABOUT HERE]

Based on these two sets of output from LDA, we are able to decompose our APR Index into sub-indices, with each of them corresponding to one of the 6 topics identified:

$$subindex_{n,m} = \overline{\hat{\theta}_{n,m}} \times APR_m$$

where $subindex_{n,m}$ is the sub-index for topic n with n = 0, 1, 2, 3, 4, 5 at month m, $\overline{\hat{\theta}_{n,m}}$ is the average of topic n proportion across all populist rhetoric articles at month m, and APR_m is the Aggregate Populist Rhetoric at month m constructed in the previous subsection. We show the plot for International Relations sub-index in Figure 4, and report its summary statistics in Table 2.

[FIGURE 4 ABOUT HERE]

5 Currency Data and Portfolio Construction

This section discusses the exchange rate data and the construction of populism portfolios.

5.1 Currency Data

Our data focuses on two samples. The first sample covers a rich set of developed and developing economies. A potential concern associated with this broad sample is that market frictions may impede investors from trading particular currencies, which could affect the validity of our findings. To address this problem, we follow Della Corte, Sarno, Schmeling, and Wagner (2018) and apply two filters. In particular, we start with a large sample of 60 countries and eliminate month/country observations of countries that implement fixed or quasi-fixed exchange rate regimes, and those imposing restrictions to their capital account (e.g., a negative Chin Ito index). Our final sample after these filters include 24 currencies.

These currencies include Australia, Brazil, Canada, Chile, Europe, Hungary, Iceland, Indonesia, Israel, Japan, Latvia, Mexico, New Zealand, Norway, Philippines, Poland, Russia, Singapore, South Korea, Sweden, Switzerland, Taiwan, Turkey, and United Kingdom.[6] We refer to this set of sample as "*All countries*". To guard against hard-to-trade and illiquid currencies, we also use the second set of sample containing G10 currencies, including Australia, Canada, Euro Area, Japan, New Zealand, Norway, Sweden, Switzerland and United Kingdom. These currencies constitute around 85% of the average daily turnover in FX markets based on the BIS (2019) and correspond to a set of countries with significant trade ties with the US economy. Our monthly data covers the period between January 1998 to October 2018. We report results of all regressions for both "*All countries*" and "*G10*" samples.

5.2 Currency Excess Returns

Our exchange rate data are collected from Barclays and Reuters *via* Thompson Reuters Datastream (Eikon). We denote by S_t (F_t) the level of the spot exchange rate and 1-month forward rate at time t, which are expressed in units of foreign currency per U.S. dollar, meaning that an increase in S_t implies an appreciation of U.S. Dollar. The realised currency excess return at time t+1 (rx_{t+1}) is computed as follows:

$$rx_{t+1} = f_t - s_{t+1}, \tag{1}$$

in which s_{t+1} is the log spot exchange rate at time $t+1$ and f_t the log 1-month forward rate at time t. In other words, the currency excess return can be decomposed into the rate of depreciation of the foreign currency subtracted from the forward discount at time t (e.g., $rx_{t+1} = f_t - s_t - (s_{t+1} - s_t)$). Assuming that the Covered Interest Rate Parity (CIP) holds,

[6] We also eliminate observations of currencies that exhibit significant deviations from CIP.

the above equation can be expressed as $rx_{i,t+1} \simeq i_t^* - i_t - (s_{t+1} - s_t)$, where i_t^* and i_t are the foreign and domestic risk-free interest rates, respectively.[7]

5.3 Portfolios sorted on APR and IR betas

One way to test the role of U.S. populist rhetoric as a pricing factor for the cross-section of currency excess returns is to sort currencies into portfolios based on their exposure to U.S. populist rhetoric. If U.S. populist rhetoric is a pricing factor for the cross-section of currencies, there should be a significant dispersion in terms of excess returns between portfolios of low-betas and those of high-betas, and the corresponding spread portfolio (HML) should generate statistically significant excess returns.

Rolling Betas. Our proxies for U.S. populist rhetoric are the APR Index, and the IR sub-index. In order to obtain the exposure of each currency to these two proxies for U.S. populist rhetoric, we regress individual currency excess returns at time t on a constant and the APR Index (or IR sub-index) using a 36-month rolling window (with a minimum of 20 observations) which ends in period $t-1$. The time-varying slope coefficient obtained from this regression is $\beta_{i,t}^{APR}$ or $\beta_{i,t}^{IR}$. Intuitively, currencies with negative betas exhibit higher exposure to U.S. populism as an increase of populism is associated with negative currency excess returns.

Populism Portfolios. At time t, we sort currencies into portfolios based on their past (i.e. $t-1$) betas with APR Index (or IR sub-index). In order to have a reasonable number of currencies in each portfolio, we limit the number of portfolios to three. We rebalance our portfolios monthly. The first portfolio (P1) includes currencies with the lowest betas, while the third portfolio (P3) covers currencies with the highest betas. We then construct a

[7] We start to include the Euro in our sample following its launch in January 1999.

zero-cost portfolios (HML), which goes short the first portfolio (P1) and long the high beta portfolio (P3).

6 Empirical Results

In this section, we empirically investigate the link between U.S. populist rhetoric and the cross-section of currency excess returns.

6.1 Populism-sorted Portfolios

As a first attempt to understand the role of U.S. populism in the foreign exchange market, we allocate currencies into portfolios based on their exposure to populism as it was analyzed in the previous section. Table 4 reports summary statistics of portfolios sorted on APR Index betas (*Panel A*) and IR sub-index betas (*Panel B*).

[TABLE 4 ABOUT HERE]

Panel A shows that there is a significant dispersion in terms of average betas when moving from P1 to P3. It increases from -1.07% to 0.31% between these two extreme portfolios. Investing in currencies with the lowest (highest) APR Index beta yields average positive (negative) excess returns. Average portfolio returns are monotonically decreasing in the APR beta. Average excess returns of the first portfolio (P1) are positive and statistically significant with a Newey and West (1987) *t*-statistic of 2.55. Of particular interest is average excess returns to LMH portfolio, which is positive and statistically significant with a Newey and West (1987) *t*-statistic of 2.67. The populism portfolio yields an annualized average excess returns of 4.95% with a Sharpe ratio of 0.76. Another outstanding feature that can be observed is that a large part of the excess returns is generated from the interest rate differential component rather than the spot exchange rate changes component. The average

interest rate differentials of portfolios are not monotonically decreasing. In particular, P1 contains currencies with the highest interest rate differentials with the U.S., however, P3 contains currencies with higher interest rate differentials than P2 on average. This suggests that sorting currencies based on U.S. populist rhetoric is different from sorting currencies based on interest rate differentials.

These results can be interpreted as follows. Currencies in P1 have negative APR betas, which mean that their returns decrease when APR Index increases. An increase in U.S. populist rhetoric, which is proxied by APR index is bad state variable in terms of aggregate consumption for U.S. investors (Pastor and Veronesi, 2018). Therefore currencies generating low excess returns in times of rising APR are considered as risky by investors. Hence, they require higher expected return to hold currencies with negative APR betas. By contrast, currencies in P3 have positive APR betas. As a result, they yield high excess returns in times of rising APR and are considered as relatively safe assets by investors. As a result, investors are willing to pay higher price and accept lower expected returns from these currencies.

Panel B also suggests a negative link between average portfolio excess returns and IR sub-index betas. Average excess returns are monotonically decreasing from P1 to P3. Shorting the HML portfolio now generates an even better performance than in *Panel A* with APR Index. Shorting this portfolio yields 5.27% excess returns annually on average (with a Newey and West (1987) *t*-statistic of -3.28) and a Sharpe ratio of 0.82.

We repeat the analysis for G10 sample in Table 5. We observe a similar pattern compared to broader cross-section of countries. Investing in the LMH portfolios based on APR Index and IR sub-index still generates statistically significant excess returns for investors on average. Regarding APR Index, it is 2.81% annually with a Sharpe ratio of 0.40. In the case of IR sub-index, the annualised average excess returns is 4.10% with a Sharpe ratio of 0.60.

[TABLE 5 ABOUT HERE]

As we would like to further explore which currencies drive the profit of long-short portfolio strategy found in Table 4, we plot the portfolio turnover with frequency of each currency at the two extreme portfolios in Figure 5.

[FIGURE 5 ABOUT HERE]

Panel A and *Panel C* of Figure 5 suggest that the top 4 currencies frequently entering the low beta portfolios based on both APR Index betas and IR sub-index betas are Australia, Euro, Mexico, and New Zealand. As these currencies typically have negative betas, they tend to generate low excess returns when U.S. populist rhetoric is high. By contrast, *Panel B* and *Panel D* of the same figure reveal top 4 currencies in high beta portfolios based on both APR Index betas and IR sub-index betas. These currencies include Canada, Japan, Norway, and Taiwan. Due to their positive betas on average, they generally yield high excess returns when there is an increase in U.S. populist rhetoric.

We also report the performance of trading strategies based on APR Index and IR Sub-index betas (reported in Table 4) compared with some prominent currency trading strategies in Table 6 (All countries), and in Table 7 (G10 countries).

[TABLE 6 ABOUT HERE]

[TABLE 7 ABOUT HERE]

For both tables, we report the results for full sample period (*Panel A*), pre-crisis (*Panel B*), and post-crisis (*Panel C*). The crisis period is based on the NBER business cycle. We denote APR as the long-short (LMH) portfolio based on APR Index betas. Similarly, IR is the corresponding strategy based on IR Sub-index betas. CAR is the carry trade strategy. We construct this strategy by first sorting currencies into terciles based on their forward discounts. The bottom tercile contains currencies with lowest forward discounts, and the top tercile contains currencies with highest forward discounts. Portfolios are rebalanced

monthly and the return to this strategy is the high-minus-low portfolio. MOM is the momentum strategy where we sort currencies into terciles based on their lagged excess return in the previous month. The bottom tercile contains currencies with the lowest lagged excess returns, and the top tercile contains currencies with the highest lagged excess returns. The return to momentum strategy is the high-minus-low portfolio. DOL is the dollar strategy, which involves taking a short position in U.S. Dollar and long position in all foreign currencies. Regarding the All countries sample, for the full sample and pre-crisis period APR and IR strategies underperform compared with almost all other strategies in terms of mean excess returns and Sharpe ratio. However, it is worth noticing an interesting feature in the post-crisis period. Although APR and IR strategies do not generate as much average excess returns compared with pre-crisis period, these two strategies show better performance than all other strategies examined. In terms of G10 sample, for the full period, IR strategy outperforms all other strategies and APR strategy is only slightly outperformed by CAR. Similar with the All countries sample, APR and IR strategies dominate all other strategies examined in the post-crisis period.

Table A2 in the Internet Appendix reports a range of correlation coefficients between the returns to APR and IR strategies and the returns to CAR, MOM, and DOL. We split the sample into two periods: pre-crisis (January 1998 to November 2007), and post-crisis (June 2009 to October 2018). In general, APR and IR strategies seem to have the highest correlations with CAR strategy. However, this correlation decreases significantly after the crisis. This result, together with the relatively good performance of APR and IR strategies in the post-crisis period discussed in the last paragraph, motivates us to examine potential diversification benefits of APR and IR strategies for investors.

We first report the diversification gains of adding APR and IR strategies to conventional currency strategies for All Countries sample in table 8.

[TABLE 8 ABOUT HERE]

In *Panel A* of table 8, we report the performance of three individual conventional currency strategies previously discussed. In the last row, the performance of an equally weighted portfolio combining all three strategies is shown. In *Panel B*, we combine these conventional currency strategies with APR strategy and examine the value it adds to portfolio performance. An noteworthy feature is that the inclusion of APR strategy increases Sharpe ratio in all cases (except for the equally weighted strategy combining all strategies, in which the improvement is not significant). We repeat these exercises with IR strategy in *Panel C*, and observe even better performance in terms of Sharpe ratio of all portfolios. We report similar results for G10 sample in table 9.

[TABLE 9 ABOUT HERE]

The results for the G10 sample further confirm the findings that adding APR and IR strategies to conventional currency strategies brings diversification benefits for currency investors.

6.2 Channels of currency exposures to U.S. Populist Rhetoric

In order to explore the channels through which U.S. populist rhetoric affects currency returns, we uncover the link between countries' currency exposure to U.S. populist rhetoric and its characteristics. Given that our sample consists of currencies from both developed and developing economies, it is natural to investigate the question as to whether U.S. populist rhetoric affects currency returns of these two groups of economies through different channels.

In its latest quarterly report, BIS (2019) records that the amount of U.S. Dollar denominated credit to non-bank borrowers in emerging and developing economies reaches $3.6 trillion at the end of 2018. This significantly high amount of U.S. Dollar denominated debt is concerning emerging and developing economies as it makes them particularly dependent

on the strength of U.S. Dollar. In case of stronger U.S. Dollar, it will be harder for these emerging and developing economies with high U.S Dollar denominated debt to repay their debt. Therefore it would be interesting to examine the link between a country's vulnerability to U.S. Dollar denominated debt and its exposure to U.S. populist rhetoric. Our proxy for a country's vulnerability to U.S. Dollar denominated debt is constructed by multiplying the ratio of U.S. Dollar denominated debt to total debt and the ratio of external debt to GDP. This ratio reflects the vulnerability of a country to repay its U.S. Dollar denominated debt. A scatter plot between average APR betas and vulnerability to U.S. Dollar denominated debt for developing countries can be found in *Panel A* of Figure 6. The negative slope coefficient suggests that countries with higher vulnerability to U.S. Dollar denominated debt are more exposed to U.S. populist rhetoric.

[FIGURE 6 ABOUT HERE]

Given that U.S. Dollar denominated debt is not really a concern for developed countries due to their relatively low level of U.S. Dollar denominated debt, it is likely for U.S. populist rhetoric to affect currencies of developed countries through different channels. Instead of vulnerability to U.S. Dollar denominated debt, we examine foreign holding of U.S. assets and average APR betas. This scatter plot can be found in panel B of table 6. Countries with less holding of U.S. assets appear to be more sensitive to U.S. populist rhetoric. By contrast, the effect of U.S. populist rhetoric on countries with higher holding of U.S. assets is less significant. This result is consistent with higher valuation of U.S. assets in times of rising populism established in Pastor and Veronesi (2018).

Does the long-term sovereign debt reflect the heterogeneity in sensitivity to U.S. populist rhetoric? In the scatter plot shown in *Panel A* of Figure 7, we plot the 10-year sovereign spread, which is the difference between 10-year foreign bond yield and 10-year U.S. bond yield, against average APR betas for the full sample of countries. Countries with higher sovereign spread are more sensitive to U.S. populist rhetoric. In fact , in *Panel B* of the

same figure, we show that countries with higher sovereign spread are the ones with higher ratio of U.S. Dollar denominated debt over total debt.

[FIGURE 7 ABOUT HERE]

Overall, our findings in this sub-section shed some light into the channels through which currencies from different countries are exposed to U.S. populist rhetoric. Countries with higher sovereign spread are more exposed to U.S. populist rhetoric. For developing countries, those with higher vulnerability to U.S. Dollar denominated debt have more exposure. Given the relatively low vulnerability to U.S. Dollar denominated debt of developed countries, U.S. populist rhetoric seems to affect those currencies through a different channel. In particular, countries with lower holding of U.S. assets experience higher sensitivity to U.S. populist rhetoric than those with higher holding of U.S. assets.

6.3 Country-level asset pricing tests

After documenting the significant excess returns of HML portfolios sorted on U.S. populist rhetoric, we now investigate the risk price of this factor.

Test assets. Our test assets are individual currencies rather than portfolios. Although carrying out pricing tests at portfolio level based on certain characteristics as in Lustig and Verdelhan (2007) is popular in the literature, a number of recent papers have recorded some limitations associated with using portfolio approach and shifted their focus to individual assets instead. Ang, Liu, and Schwarz (2018) suggest that grouping stocks into portfolios make the cross-sectional dispersion of the betas shrink, which leads to less efficient estimate of factor risk premia. Bali, Brown, and Tang (2017) estimate the risk price of economic uncertainty using individual stocks. In the context of currencies, Barroso et al. (2018) test the risk price of global imbalances using individual currencies.

U.S. Populist Rhetoric Betas. In order to estimate the exposure of each currency to U.S. populist rhetoric proxy $\beta_{i,t}^{PS}$, we run the following time-series regressions based on a 36-month rolling window with a minimum number of 20 observations in each regression:

$$rx_{i,t} = \alpha_{i,t} + \beta_{i,t}^{PR} PR_{t-1} + \epsilon_{i,t+1} \tag{2}$$

where $rx_{i,t}$ is the realised excess return on currency i in month t, and PR_{t-1} is the proxy for populist rhetoric in month *t-1*.

Cross-sectional Regressions. Having estimated $\hat{\beta}_{PR,i}$, we investigate the cross-sectional relation between U.S. populist rhetoric betas and expected currency excess returns at the country level (Bali et al., 2017). In particular, we run monthly cross-sectional regressions at each time t:

$$rx_{i,t+1} = \lambda_{0,t} + \lambda_{1,t} \hat{\beta}_{i,t}^{PR} + \lambda_{2,t} X_{i,t} + \epsilon_{i,t+1} \tag{3}$$

where $X_{i,t}$ are currency-specific control variables at time t for currency i (volatility, illiquidity). These two variables are constructed as in Menkhoff et al. (2012a). We then take the time-series average of slope coefficients $\lambda_{1,t}$ and report its Newey and West (1987) t-statistic and average adjusted R^2.

Table 10 summarises results regarding estimation of risk prices of APR Index and IR sub-index from regressions (2) and (3).

In this table, we report results for All countries sample in *Panel A*. APR Index is the proxy for U.S. populist rhetoric in the first four columns, and IR sub-index is the proxy for U.S. populist rhetoric in the last four columns. The univariate regression results shown in the first column suggest a negatively significant link between the APR beta and the cross-section of future currency excess returns. The market price of risk λ associated with APR factor is -0.43, with a t-statistic of -3.04. This negative coefficient for APR implies

that taking a long position in currencies with lower APR betas predicts positive returns in the following period. To examine the economic significance of this result, we compute the difference in average β^{APR} between P1 and P3 from table 4, which is 1.38% [=0.31% - 1.07%]. If a currency were to move from P1 to P3, its expected return would decrease by 0.59% [=1.38% × -0.43] per month. Therefore, risk price of APR Index is not only statistically significant but also economically significant.

In the second column, when we control for volatility of individual currencies, risk price of APR beta remains negative and statistically significant with a Newey and West (1987) *t*-statistic of -3.08, and risk price of volatility factor is negative but statistically insignificant. The third column controls for illiquidity of individual currencies and it still gives us a negative and statistically significant risk price of APR beta. Risk price of illiquidity factor, on the other hand, is statistically insignificant. In the fourth column, when controlling for both illiquidity and volatility of individual currencies simultaneously, we still get a strongly significant risk price of APR with a Newey and West (1987) *t*-statistic of -3.74.

In the next four columns, IR sub-index is chosen as proxy for U.S. populist rhetoric instead. In the univariate regression with IR sub-index beta as in the fifth column, risk price of this factor is also negative, suggesting a negative relation between IR sub-index beta and the cross-section of future currency excess returns. This coefficient is -0.07 with a Newey and West (1987) *t*-statistic of -3.10. Following the same calculation methodology as in the case of APR Index gives us the economic significance of this risk factor. In particular, if a currency were to move from P1 to P3 based on β^{IR} as in Table 4, its expected return would decrease by 0.81% [=11.63% × -0.07] per month. Therefore, the economic significance of IR sub-index as risk factor is even stronger than that of APR Index.

In the last three columns, we add control variables. Similar to risk price of APR beta, risk price of IR sub-index remains negative and statistically significant after controlling for these two variables, both separately and simultaneously.

In the same table, we report results for G10 sample in *Panel B*. Similarly, APR Index is the proxy for U.S. populist rhetoric in the first four columns. The coefficient of APR beta is also negative and strongly significant in the univariate regression in the first column. This result holds when adding volatility and illiquidity, both separately and simultaneously, even though its statistical significance is weaker. IR Index is the proxy for U.S. populist rhetoric in the last four columns. The coefficients of IR beta remain negative and strongly significant in all specifications.

[TABLE 10 ABOUT HERE]

6.3.1 U.S. Populist Rhetoric and Gubernatorial Elections in Swing States

An important question is whether the risk price of U.S. populist rhetoric changes in certain periods, e.g., around elections, and in certain important locations such as swing states. To address this question we test whether gubernatorial elections in swing states plays a role in the pricing of U.S. populist sentiment in the cross-section of currency excess returns. In particular, we add two more variables in regressions (2) and (3). The first one if Election Dummy, which is equal to 1 if there is a gubernatorial election in at least one swing state in that year, and 0 otherwise[8]. The second variable added is the interaction variable between Election Dummy and U.S. populist rhetoric. The coefficient of this interaction variable is of particular interest, because it implies the risk price of U.S. populist rhetoric during election time in swing states. Results are reported in Table 11.

[TABLE 11 ABOUT HERE]

Results for All countries sample are shown in the first two columns. APR Index and IR sub-index are used as proxy for U.S. populist rhetoric in the first and second columns,

[8]Gubernatorial election data are obtained from the Correlates of State Policy Project (CSPP).

respectively. The interaction variables between U.S. populist rhetoric and Election Dummy are negative and statistically significant in both regressions, even though it is stronger for APR Index. We then replicate these regressions for G10 sample in the next two columns. The statistical significance of interaction variables in both cases is weaker compared to the other sample. Nevertheless, these two variables still maintain their negative sign. Overall, these results indicate that the pricing power of U.S. populist rhetoric is stronger during gubernatorial elections in swing states.

7 Globalisation and U.S. Populist Rhetoric

In the Pastor and Veronesi (2018) model, a shift to populist regime is captured by a move to autarky from globalization. Therefore, if our measure of populist rhetoric is well identified, then it should be sensitive to exposure to globalization. We measure exposure to globalization using equity data following Barrot, Loualiche, and Sauvagnat (2016), and then sort stock returns of U.S. manufacturing firms into quintiles based on their exposure to globalisation, with the proxy being shipping cost. Shipping cost is computed as a percentage of the price paid by importers. Firms in the low shipping cost portfolio are more exposed to globalisation whereas firms in the high shipping cost portfolio are more local. We then examine the correlation between these portfolios and our APR Index and show results in Table 12.

[TABLE 12 ABOUT HERE]

In *Panel A*, we report the pairwise correlations between the returns of 5 portfolios together with HML portfolio and APR Index. For equally weighted portfolios, there is a positive correlation between low shipping cost portfolio and APR Index. This is consistent with the rationale that an increase in APR Index signals a switch from integrated to autarkic

regime for the U.S., so firms with low shipping cost (i.e those with high exposure to globalisation) should be positively correlated with our index. We also find an almost monotonically decreasing pattern in terms of this correlation as we go from P1 to P5. The negative correlation between P5 with our index suggests that this portfolio of firms with low exposure to globalisation can be a hedge in times of rising U.S. populist rhetoric. This result is consistent for value weighted portfolios, and also when we control for Fama-French 3 factors in *Panel B* and Fama-French 5 factors in *Panel C*.

8 Robustness

Alternative pricing factors. To test for robustness of our findings, we also control for two prominent factors used in FX literature, which are DOL and CAR. DOL is the average excess return from a strategy that goes long in all foreign currencies and short in the domestic currency. CAR is the excess return to carry trade strategy as in Lustig et al. (2011). With these two factors, our regressions (2) and (3) become:

$$rx_{i,t} = \alpha_{i,t} + \beta_{i,t}^{PR} PR_{t-1} + \beta_{i,t}^{DOL} DOL_t + \beta_{i,t}^{CAR} CAR_t + \epsilon_{i,t} \tag{4}$$

$$rx_{i,t+1} = \lambda_{0,t} + \lambda_{1,t}\hat{\beta}_{i,t}^{PR} + \lambda_{2,t}\hat{\beta}_{i,t}^{DOL} + \lambda_{3,t}\hat{\beta}_{i,t}^{CAR} + \epsilon_{i,t+1} \tag{5}$$

The first proxy for U.S. populist rhetoric is our APR Index, and the second one is our IR sub-index. We report our regressions results for both APR Index and IR sub-index in Table 13.

[TABLE 13 ABOUT HERE]

Results for All countries sample are reported in *Panel A*. In the first three columns, APR Index is the proxy for U.S. populist rhetoric. Result from the first column with univariate

regression suggests a negative and statistically significant link between APR beta and future currency excess returns. Risk price of APR beta is -0.32 with a Newey and West (1987) *t*-statistic of -2.45. In the second column, when we control for DOL factor, risk price of APR beta remains negative and even more statistically significant with a Newey and West (1987) *t*-statistic of -2.52. DOL factor is statistically insignificant, which is consistent with the literature. In the third column, DOL and CAR factors are controlled for simultaneously. The coefficient of APR beta is negative and maintains its statistical significance with a *t*-statistic of -2.09. CAR factor is positive and significant with a *t*-statistic of 2.43, which is consistent with the literature. This highlights an important finding. APR beta has predictive power for future currency excess returns beyond DOL and CAR factors. We repeat the same regressions when IR sub-index is used as proxy for U.S. populist rhetoric in the next three columns. Risk price of IR beta is negative and statistically significant with a *t*-statistic of -2.31 in the univariate regression shown in the sixth column. This pricing power of IR beta maintains in all specifications. Overall, these empirical findings suggest that U.S. populist rhetoric, proxied by APR Index and IR sub-index carries additional information for future currency excess returns beyond CAR and DOL factors.

We report results for G10 sample in *Panel B*. When both CAR and DOL factors are controlled for, the coefficients of both APR beta and IR beta remain negative and statistically significant. Overall, findings in this section suggest the important role of U.S. populist rhetoric in predicting the cross-sectional variation in individual currency excess returns beyond prominent predictors.

Alternative proxies for U.S. populist rhetoric. We also replicate our regressions in Table 10 using different proxies for U.S. populist rhetoric. Firstly, we use other sub-indices identified by LDA Algorithm other than IR sub-index. Regression results can be found in Table A3 in the Internet Appendix. Overall, coefficients of other sub-indices are all negative but most of them show weaker results in terms of statistical significance compared to APR

Index and IR sub-index. This supports our choice of these two variables as proxy when examining the effects of U.S. populist rhetoric on cross-section currency excess returns. Secondly, we also provide regression results with populist rhetoric index constructed from individual newspapers in Table A4 in the Internet Appendix. The results are slightly weaker, but coefficients of populist rhetoric beta are negative in most cases.

Mimicking Portfolio. Our previous results demonstrate that our long-short strategy based on a signal from populist rhetoric offers strong diversification benefits for carry trade strategies. In order to address potential concerns regarding tradability of such strategy and also reveal hedging opportunities offered by this measure, we build a factor mimicking portfolio based on APR Index (or IR sub-index) by projecting our factor on the returns of carry trade portfolios and implement asset pricing tests. In particular we run Fama and MacBeth (1973) cross-sectional regressions where in the first step we project currency excess returns of portfolios sorted on forward discounts on a dollar factor (DOL) and our populism mimicking portfolio. In the second step we regress average currency excess returns of carry trade portfolios on factor betas. We report Newey and West (1987) t-statistics that are corrected for autocorrelation and heteroskedasticity. We also report t-statistics with Shanken (1985) standard errors so as to guard against the error in variables problem. Results can be found in Table A5 in the Internet Appendix. Overall, our mimicking portfolio return factor (FPR) is also priced in cross-section of carry trade portfolios.

9 Conclusions

In this paper, we have constructed a novel index of U.S. populism that captures the overall populist rhetoric reported by five leading newspapers. Our Aggregate Populist Rhetoric (APR) Index spikes around a range of well-known populist events in the U.S. We then sort currencies into portfolios based on their exposure to U.S. populist rhetoric, proxied by our APR Index and IR sub-index, and find significant spread between high and low beta portfolios. This trading strategy can generate highly statistically significant average excess returns. We then find strong empirical evidence that U.S. populist rhetoric, proxied by APR Index and IR sub-index, is negatively priced in the cross-section of currency excess returns. Currencies which generate high (low) excess returns in times of rising U.S. populist rhetoric generate lower (higher) expected excess returns.

This empirical evidence is consistent with theoretical work suggesting that rising populism leads to lower aggregate consumption for U.S. investors, increasing their marginal utility. Assets that generate high excess returns during this state of the world therefore are valued by U.S. investors and are willing to accept lower expected returns for holding them. By contrast, assets that generate low returns in times of rising populism are considered risky, which means that investors demand higher expected returns for holding them. Our results can be extended to construct a similar index in different countries, which are of particular relevance in current political climate of rising populism in many parts of the world.

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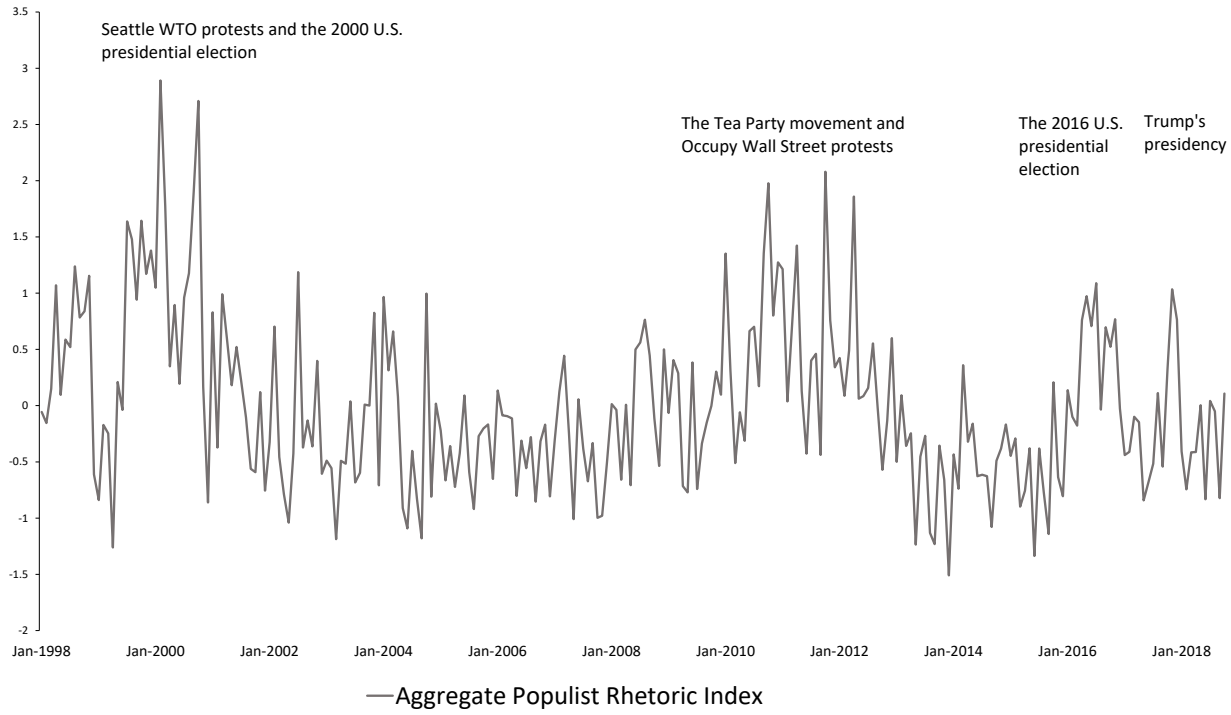
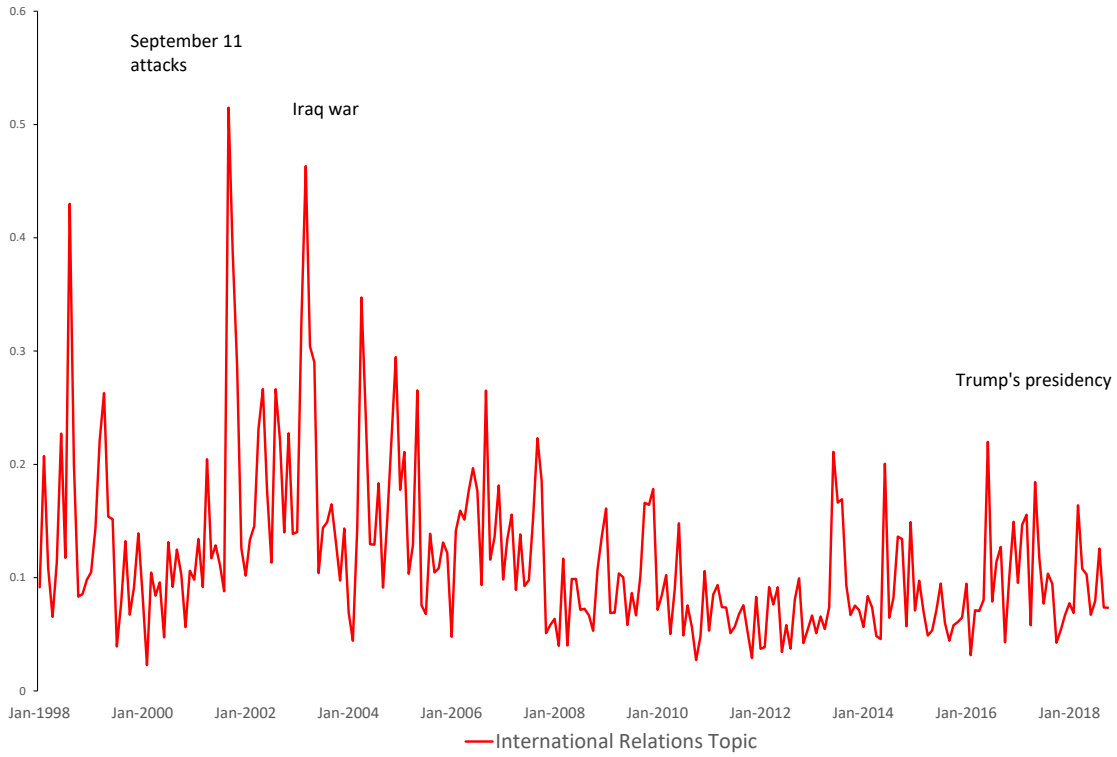
Figure 2. U.S. Aggregate Populist Rhetoric (APR) Index



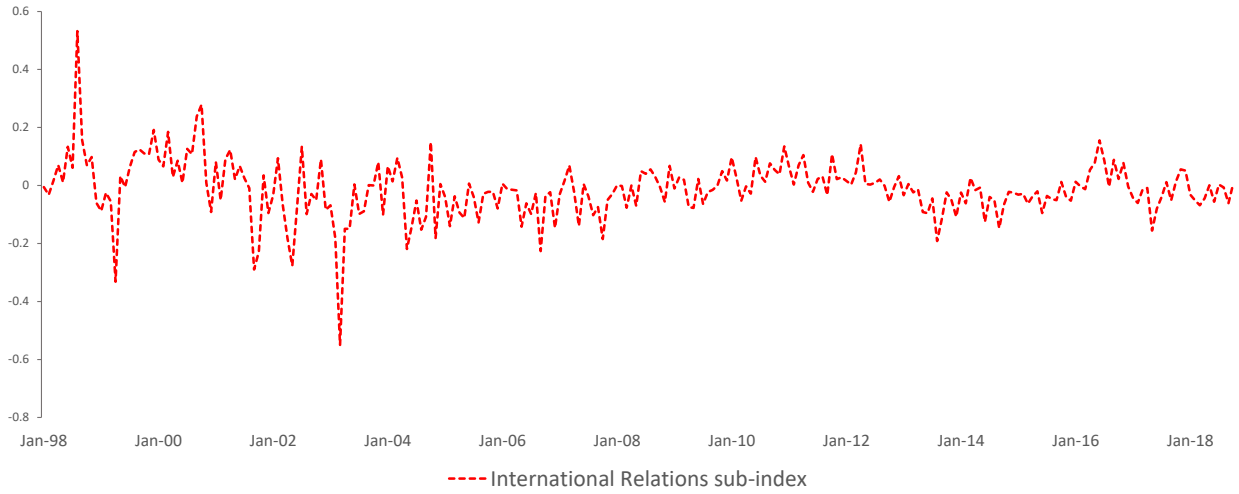
The figure reports our U.S. Aggregate Populist Rhetoric (APR) Index. The index is based on scaled monthly counts of articles containing populist rhetoric reported by The New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times between January 1998 and October 2018.

Figure 3. International Relations Topic Proportion



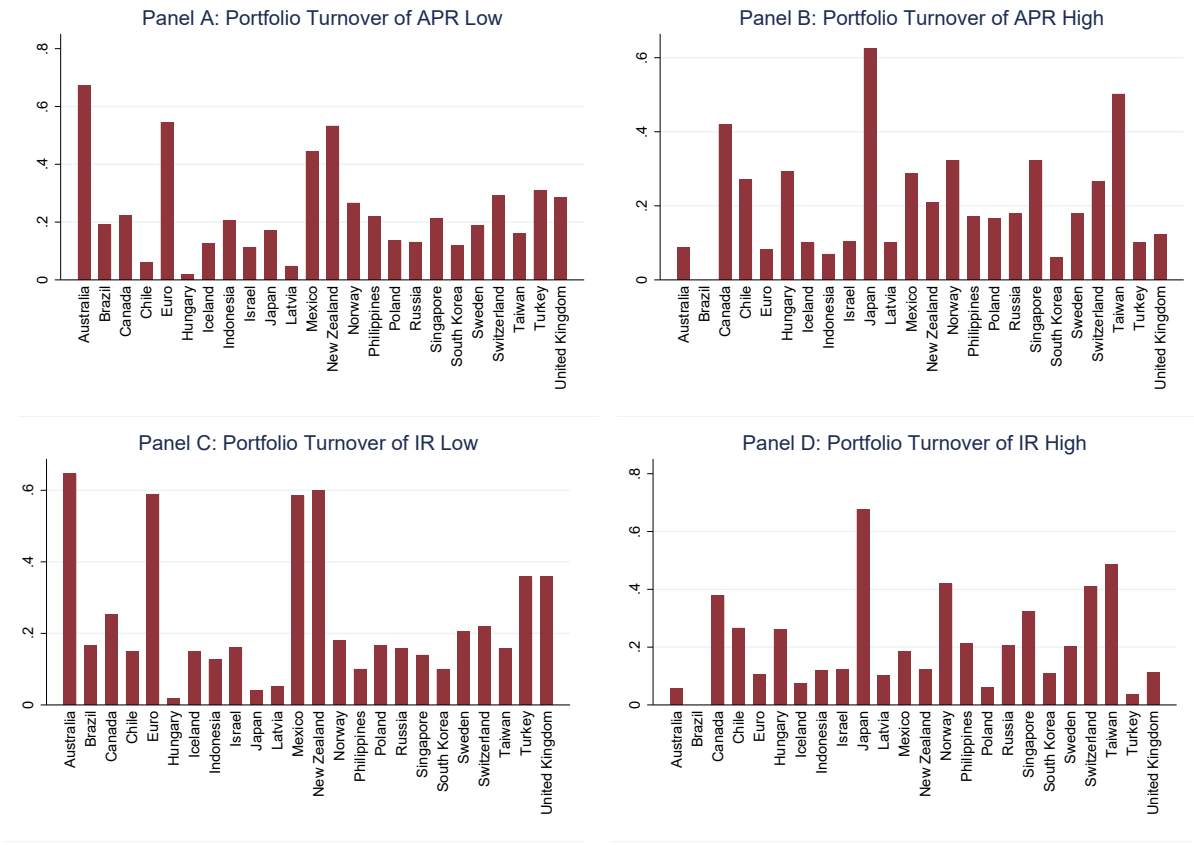
The figure reports International Relations Topic Proportion. This is the proportion of International Relations topic averaged across all articles containing populist rhetoric from The New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times. The data are between January 1998 and October 2018.

Figure 4. International Relations Sub-index



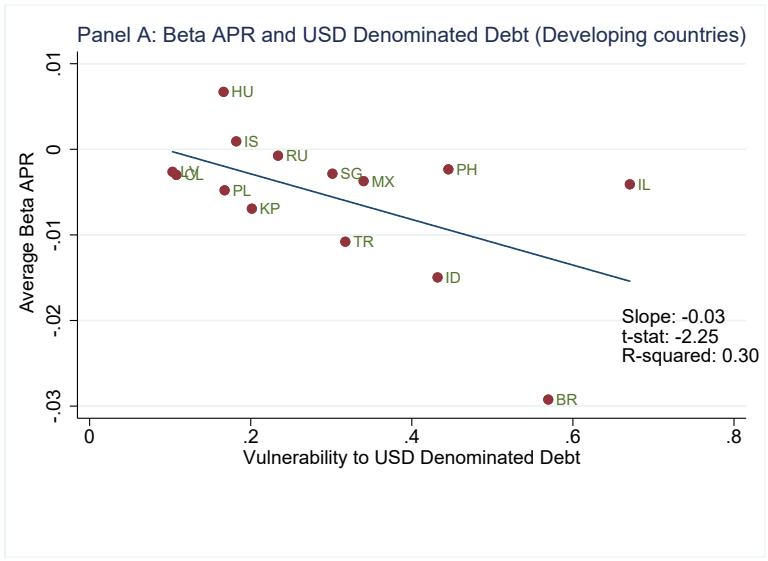
The figure reports International Relations Sub-index. This sub-index is constructed by multiplying the average proportion of International Relations topic across all populist rhetoric newspapers articles from 5 newspapers with the Aggregate Populist Rhetoric Index. The monthly data are between January 1998 and October 2018.

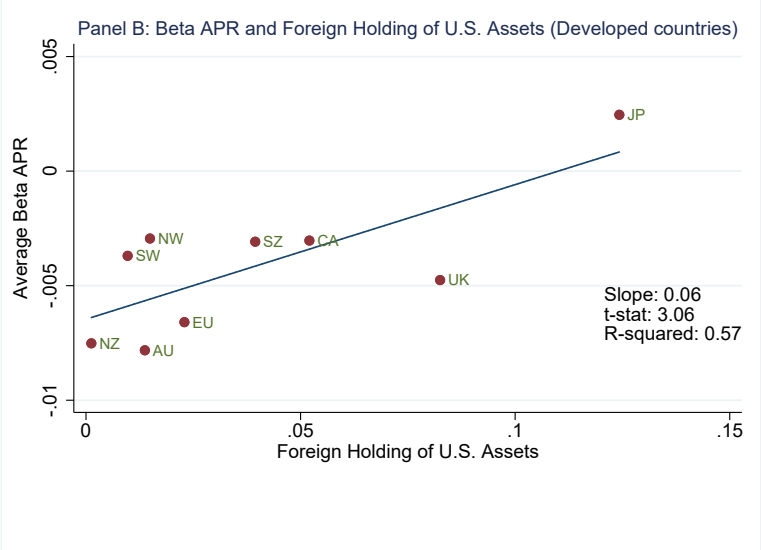
Figure 5. Portfolio Turnover



The figure shows the portfolio turnover of currency portfolios sorted on APR Index (*Panel A* and *Panel B*), and on IR sub-index (*Panel C* and *Panel D*). The monthly data are between January 1998 and October 2018.

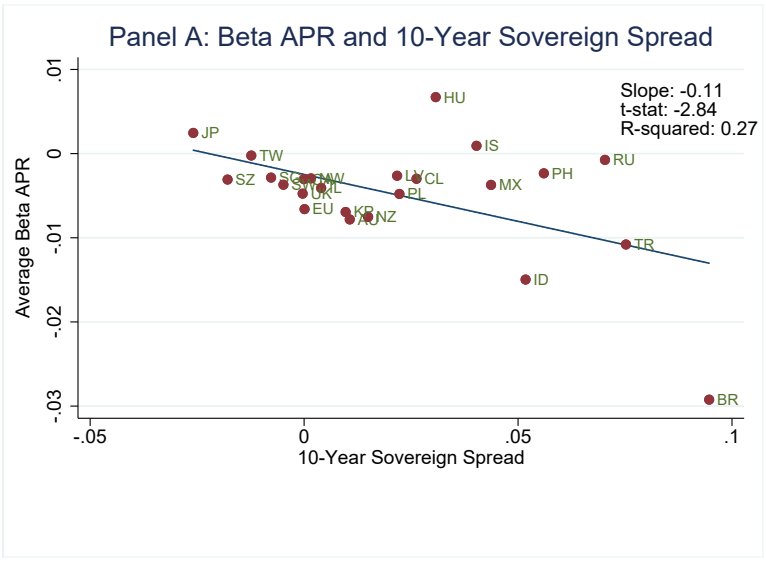
Figure 6. Average Beta APR and Debt Positions

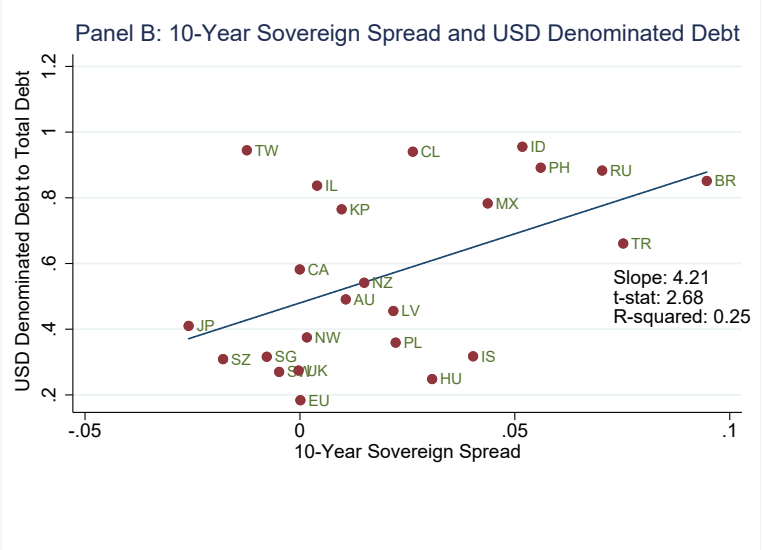




The figure shows average beta APR and debt positions. In *Panel A*, we plot the average beta APR and the vulnerability to U.S. Dollar denominated debt for a sample of developing countries. In *Panel B*, we plot the average beta APR and foreign holding of U.S. assets ratio for a sample of developed countries. Data for U.S. Dollar denominated debt are obtained from BIS website, data for foreign holding of U.S. assets are obtained from U.S. Department of the Treasury website. The data are between January 1998 and October 2018.

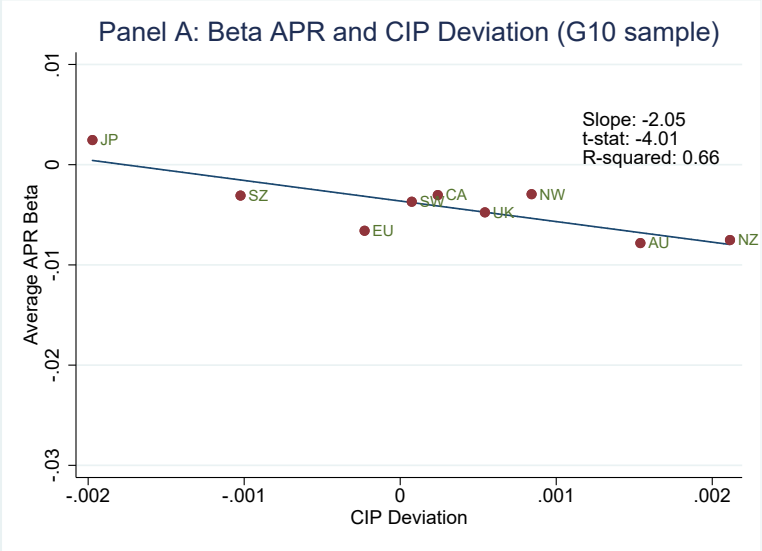
Figure 7. Average Beta APR and Sovereign Spread

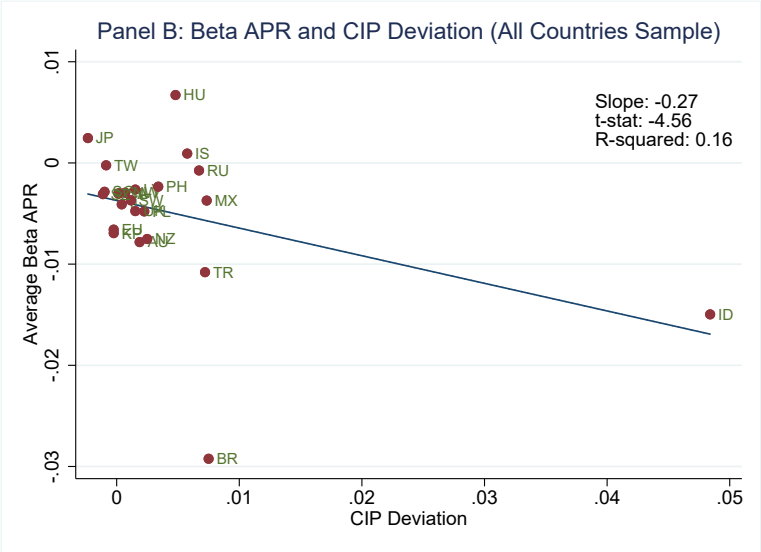




The figure shows average beta APR and 10-year sovereign spread (*Panel A*), U.S. Dollar denominated debt to total debt ratio and 10-year sovereign spread (*Panel B*). Data for U.S. Dollar denominated debt are obtained from BIS website. The monthly data are between January 1998 and October 2018.

Figure 8. Average Beta APR and CIP Deviation





The figure shows average beta APR and CIP Deviation for G10 sample (*Panel A*), All countries sample (*Panel B*). The monthly data are between January 1998 and October 2018.

Table 1. Bonikowski and Gidron (2015)'s Populist Dictionary

This table reports the populist terms identified in the dictionary by Bonikowski and Gidron (2015). We use this dictionary to identify newspapers articles containing populist rhetoric.

Populist Dictionary	
N-grams	Words
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

Table 2. Summary Statistics of APR Index and IR Sub-Index

This table reports summary statistics of Aggregate Populist Rhetoric Index (APR) and International Relations (IR) sub-index. We report mean, standard deviation, minimum and maximum values, skewness, kurtosis, and first order autocorrelations of APR, IR, changes in APR (i.e.ΔAPR), and changes in IR (i.e.ΔIR). Figures in parentheses are p-values. Monthly data are from January 1998 and October 2018.

Populism Indices				
	APR Index	ΔAPR Index	IR sub-index	ΔIR sub-index
Mean	-0.00	0.00	-0.01	0.00
Std	0.75	0.65	0.10	0.11
Min	-1.51	-2.07	-0.55	-0.38
Max	2.89	1.79	0.53	0.47
Skewness	0.86	3.19	-0.14	0.13
Kurtosis	3.92	3.43	9.89	6.12
AC (1)	0.49	-0.41	0.40	-0.40
	(0.00)	(0.00)	(0.00)	(0.00)

Table 3. Correlations with Economic Uncertainty and Political Risk Indices

This table reports correlations between APR Index, IR sub-index and some indices for economic uncertainty and political risks. EPU is the Economic Policy Uncertainty from Baker et al. (2016); UNC^m, UNC^q, UNC^y are 1-month-ahead, 3-month-ahead, and 12-month-ahead macroeconomic uncertainty indices respectively from Jurado et al. (2015), GPR is the geopolitical risk index from Caldara and Iacoviello (2018), ICRG PR is the Political Risk index from International Country Risk Guide (ICRG), VIX is the CBOE Volatility Index. Figures in parentheses are *p*-values. We report results for both index level (*Panel A*) and its percentage change (*Panel B*). Monthly data are between January 1998 and October 2018 (except for ICRG PR data which is up until January 2014).

Panel A: Index Level							
	EPU	UNC^m	UNC^q	UNC^y	GPR	ICRG PR	VIX
APR Index	0.02	0.33	0.33	0.35	-0.31	0.39	0.18
	(0.73)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
IR sub-index	-0.02	0.26	0.26	0.26	-0.44	0.34	0.15
	(0.70)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)
Panel B: Index Change							
	ΔEPU	ΔUNC^m	ΔUNC^q	ΔUNC^y	ΔGPR	ΔICRG PR	ΔVIX
ΔAPR Index	0.01	-0.11	-0.11	-0.11	0.00	0.01	0.01
	(0.88)	(0.10)	(0.09)	(0.09)	(0.96)	(0.87)	(0.86)
ΔIR sub-index	0.03	-0.11	-0.12	-0.12	0.04	0.02	0.03
	(0.65)	(0.07)	(0.07)	(0.06)	(0.49)	(0.71)	(0.62)

Table 4. Portfolios sorted on APR and IR Betas - All Countries Sample

This table reports summary statistics for the excess returns of three currency portfolios sorted on exposure to APR Index (*Panel A*), IR sub-index (*Panel B*). Portfolio 1 (P1) contains currencies with the lowest APR Index (IR sub-index) betas, and Portfolio 3 (P3) contains currencies with the highest APR Index (IR sub-index) betas. HML represents the portfolios that has a long position in the high beta portfolio (P3) and a short position in the low beta portfolio (P1). For each portfolio, we report annualised mean and its t-statistics (reported in squared brackets), standard deviation (Std) and Sharpe ratios (SR), average betas of individual currencies(β), all in percentage points. We also report skewness and kurtosis, exchange rate change component of excess returns. Interest rate differential is the forward premium component of excess returns. The data are monthly from January 1998 and October 2018.

Panel A: APR Index				
	P1	P2	P3	LMH
Mean	4.86	1.55	-0.08	4.95
	[2.25]	[0.91]	[-0.05]	[2.67]
Std	9.45	7.48	7.74	6.49
Skewness	-0.60	-0.52	-0.41	0.29
Kurtosis	5.33	4.74	4.00	3.99
Exchange rate changes	0.79	-0.38	1.56	-0.70
	[0.34]	[-0.22]	[0.89]	[-0.56]
Interest rate differential	5.52	1.16	1.48	4.04
	[6.48]	[7.95]	[3.51]	[3.97]
SR	0.52	0.21	-0.01	0.76
β^{APR}	-1.07	-0.35	0.31	
Panel B: IR sub-index				
	P1	P2	P3	LMH
Mean	5.28	0.72	0.01	5.27
	[2.02]	[0.40]	[0.00]	[3.28]
Std	9.58	7.27	7.16	6.53
Skewness	-0.64	-0.43	-0.38	0.22
Kurtosis	5.77	4.35	3.96	3.50
Exchange rate changes	2.39	0.27	1.75	-1.51
	[0.10]	[0.15]	[1.02]	[-1.00]
Interest rate differential	5.33	1.03	1.76	3.57
	[4.41]	[4.47]	[3.96]	[3.34]
SR	0.58	0.09	0.00	0.82
β^{IR}	-9.06	-3.00	2.57	

Table 5. Portfolios sorted on APR and IR Betas - G10 Sample

This table reports summary statistics for the excess returns of three currency portfolios sorted on exposure to APR Index (*Panel A*), IR sub-index (*Panel B*). Portfolio 1 (P1) contains currencies with the lowest APR Index (IR sub-index) betas, and Portfolio 3 (P3) contains currencies with the highest APR Index (IR sub-index) betas. HML represents the portfolios that has a long position in the high beta portfolio (P3) and a short position in the low beta portfolio (P1). For each portfolio, we report annualised mean and its t-statistics (reported in squared brackets), standard deviation (Std) and Sharpe ratios (SR), average betas of individual currencies(β), all in percentage points. We also report skewness and kurtosis, exchange rate change component of excess returns. Interest rate differential is the forward premium component of excess returns. The data are monthly from January 1998 and October 2018.

Panel A: APR Index				
	P1	P2	P3	LMH
Mean	2.19	0.38	-0.63	2.81
	[0.95]	[0.18]	[0.33]	[1.75]
Std	10.03	8.74	8.38	6.99
Skewness	-0.52	-0.29	0.16	0.83
Kurtosis	5.85	3.99	3.03	7.19
Exchange rate changes	-0.94	-0.07	0.34	-1.28
	[-0.41]	[-0.03]	[0.18]	[-0.78]
Interest rate differential	1.25	0.31	-0.29	1.54
	[7.40]	[2.22]	[-1.59]	[8.71]
SR	0.22	0.043	-0.07	0.40
β^{APR}	-0.98	-0.42	0.20	
Panel B: IR sub-index				
	P1	P2	P3	LMH
Mean	3.08	0.3	-1.02	4.10
	[1.21]	[0.01]	[-0.54]	[2.50]
Std	10.06	8.61	8.21	6.82
Skewness	-0.48	-0.12	0.08	0.22
Kurtosis	6.00	3.10	3.12	4.38
Exchange rate changes	-1.70	0.24	0.63	-2.33
	[-0.67]	[0.12]	[0.34]	[-1.41]
Interest rate differential	1.38	0.27	-0.39	1.77
	[8.31]	[1.51]	[-1.80]	[9.80]
SR	0.31	0.00	-0.12	0.60
β^{IR}	-8.92	-3.44	1.65	

Table 6. Comparisons with other currency trading strategies - All Countries Sample

This table reports summary statistics for the excess returns of different currencies strategies. APR is the strategy that shorts the lowest tercile portfolio sorted by APR Index beta, and longs the top tercile portfolio sorted by APR Index beta. IR is the strategy that shorts the lowest tercile portfolio sorted by IR Sub-index beta, and longs the top tercile portfolio sorted by IR Sub-index beta. CAR is the carry trade strategy. MOM is the momentum strategy. DOL is the dollar strategy. For each portfolio, we report annualized mean and its t-statistics (reported in squared brackets), standard deviation (Std) and Sharpe ratios (SR), all in percentage points. We also report skewness and kurtosis. We report three sample periods: January 1998 to October 2018 (*Panel A*), January 1998 to November 2007 (*Panel B*), July 209 to October 2018 (*Panel C*).

Panel A: Full Sample					
	APR	IR	CAR	MOM	DOL
Mean	4.95	5.27	8.82	6.11	2.41
Std	6.49	6.41	7.77	6.76	7.58
Skewness	-0.29	-0.22	-0.50	0.08	-0.63
Kurtosis	3.99	3.50	3.88	5.08	5.20
SR	0.76	0.82	1.14	0.91	0.31

Panel B: Pre-Crisis					
	APR	IR	CAR	MOM	DOL
Mean	8.69	10.4	18.97	11.44	7.08
Std	7.07	6.49	6.87	6.91	5.97
Skewness	-0.31	-0.19	-0.21	-0.49	0.11
Kurtosis	3.47	3.34	3.00	3.95	2.71
SR	1.23	1.61	2.76	1.66	1.19

Panel C: Post-Crisis					
	APR	IR	CAR	MOM	DOL
Mean	3.09	2.24	0.52	0.56	-0.54
Std	4.99	5.41	7.24	5.38	7.45
Skewness	-0.40	-0.32	-0.38	-0.31	-0.41
Kurtosis	3.91	3.71	3.74	3.48	4.35
SR	0.62	0.41	0.07	0.10	-0.07

Table 7. Comparisons with other currency trading strategies - G10 Sample

This table reports summary statistics for the excess returns of different currencies strategies. APR is the strategy that shorts the lowest quintile portfolio sorted by APR Index beta, and longs the top quntitle portfolio sorted by APR Index beta. IR is the strategy that shorts the lowest quintile portfolio sorted by IR Sub-index beta, and longs the top quntitle portfolio sorted by IR Sub-index beta. CAR is the carry trade strategy. MOM is the momentum strategy. DOL is the dollar strategy. For each portfolio, we report annualised mean and its t-statistics (reported in squared brackets), standard deviation (Std) and Sharpe ratios (SR), all in percentage points. We also report skewness and kurtosis. We report three sub samples: January 1998 to November 2007 (*Panel A*), December 2007 to June 2009 (*Panel B*), July 2009 to October 2018 (*Panel C*).

Panel A: Full Sample					
	APR	IR	CAR	MOM	DOL
Mean	2.81	4.10	3.24	1.14	0.65
Std	6.99	6.82	7.67	7.40	8.28
Skewness	-0.83	-0.22	-0.84	0.26	-0.16
Kurtosis	7.17	4.38	5.58	5.67	3.85
SR	0.40	0.60	0.42	0.15	0.07

Panel B: Pre-Crisis					
	APR	IR	CAR	MOM	DOL
Mean	2.76	5.93	7.15	0.21	3.44
Std	6.51	5.41	6.22	6.68	7.38
Skewness	-0.74	-0.74	-0.67	-0.00	0.23
Kurtosis	3.89	3.89	3.18	3.74	2.62
SR	0.43	1.04	1.15	0.03	0.47

Panel C: Post-Crisis					
	APR	IR	CAR	MOM	DOL
Mean	4.23	4.23	2.11	1.39	-0.88
Std	5.69	5.69	7.13	6.14	7.87
Skewness	-0.40	-0.40	-0.30	-0.00	-0.12
Kurtosis	3.32	3.32	3.00	2.88	3.41
SR	0.74	0.74	0.30	0.23	-0.11

Table 8. Diversification Benefits of APR and IR Strategies - All Countries Sample

This table reports the benefits of adding APR and IR strategies to conventional currency strategies. APR is the strategy that shorts the lowest quintile portfolio sorted by APR Index beta, and longs the top quntitle portfolio sorted by APR Index beta. IR is the strategy that shorts the lowest quintile portfolio sorted by IR Sub-index beta, and longs the top quntitle portfolio sorted by IR Sub-index beta. CAR is the carry trade strategy. MOM is the momentum strategy. DOL is the dollar strategy. For each portfolio, we report annualised mean, standard deviation (Std) and Sharpe ratios (SR), all in percentage points. We also report skewness and kurtosis. We report portfolio performance of individual trading strategies (*Panel A*), portfolio performance including APR to each individual strategy and the the equally weighted (EW) portfolio (*Panel B*), portfolio performance including IR strategy to each individual strategy and the equally weighted (EW) portfolio (*Panel C*). The data are monthly between January 1998 and October 2018.

Panel A: Excluding APR and IR Strategies				
	CAR	MOM	DOL	EW
Mean	8.82	6.11	2.41	5.78
Std	7.77	6.76	7.58	4.69
Skewness	-0.50	0.08	-0.63	-0.17
Kurtosis	3.88	5.08	5.20	3.35
SR	1.14	0.90	0.32	1.23

Panel B: Including APR Strategy				
	CAR + APR	MOM + APR	DOL + APR	EW + APR
Mean	6.89	5.53	3.68	5.57
Std	5.95	5.06	5.73	4.52
Skewness	-0.39	-0.06	-0.58	-0.21
Kurtosis	3.78	3.86	5.23	3.79
SR	1.16	1.09	0.64	1.23
w_{APR}	0.50	0.50	0.50	0.25

Panel C: Including IR Strategy				
	CAR + IR	MOM + IR	DOL + IR	EW + IR
Mean	7.05	5.69	3.84	5.66
Std	5.95	4.84	5.60	4.42
Skewness	-0.50	-0.04	-0.69	-0.32
Kurtosis	3.65	4.31	5.20	3.93
SR	1.18	1.18	0.69	1.28
w_{IR}	0.50	0.50	0.50	0.25

Table 9. Diversification Benefits of APR and IR Strategies - G10 Sample

This table reports the benefits of adding APR and IR strategies to conventional currency strategies. APR is the strategy that shorts the lowest quintile portfolio sorted by APR Index beta, and longs the top quintile portfolio sorted by APR Index beta. IR is the strategy that shorts the lowest quintile portfolio sorted by IR Sub-index beta, and longs the top quintile portfolio sorted by IR Sub-index beta. CAR is the carry trade strategy. MOM is the momentum strategy. DOL is the dollar strategy. For each portfolio, we report annualised mean, standard deviation (Std) and Sharpe ratios (SR), all in percentage points. We also report skewness and kurtosis. We report portfolio performance of individual trading strategies (*Panel A*), portfolio performance including APR to each individual strategy and the the equally weighted (EW) portfolio (*Panel B*), portfolio performance including IR strategy to each individual strategy and the equally weighted (EW) portfolio (*Panel C*). The data are monthly between January 1998 and October 2018.

Panel A: Excluding APR and IR Strategies				
	CAR	MOM	DOL	EW
Mean	3.24	1.14	0.65	1.69
Std	7.67	7.40	8.28	4.86
Skewness	-0.93	0.26	-0.16	-0.18
Kurtosis	6.62	5.67	3.85	4.91
SR	0.42	0.15	0.08	0.35

Panel B: Including APR Strategy				
	CAR + APR	MOM + APR	DOL + APR	EW + APR
Mean	3.03	1.98	1.73	1.96
Std	6.32	5.07	6.07	4.63
Skewness	-1.09	-0.35	-0.93	-0.43
Kurtosis	9.15	7.00	8.25	6.83
SR	0.48	0.39	0.29	0.42
w_{APR}	0.50	0.50	0.50	0.25

Panel C: Including IR Strategy				
	CAR + IR	MOM + IR	DOL + IR	EW + IR
Mean	3.67	2.62	2.37	2.28
Std	6.39	5.12	6.04	4.68
Skewness	-0.66	-0.12	-0.52	-0.25
Kurtosis	6.79	5.66	6.14	5.80
SR	0.57	0.51	0.39	0.49
w_{IR}	0.50	0.50	0.50	0.25

Table 10. Cross-section FX Asset Pricing with U.S. Populist Rhetoric

This table reports regressions results for the estimation of the market price of APR index and IR sub-index (λ_{PR}). The control variables are volatility ($\lambda_{Volatility}$) and illiquidity ($\lambda_{Illiquidity}$) as in Menkhoff et al. (2012a). *Panel A* (*Panel B*) reports results for All Countries (G10 Countries). Newey and West (1987) t-statistics are reported in squared brackets, where *** indicates significance at the 1% level, ** at the 5% level, and * at the 10% level. The data are monthly between January 1998 and October 2018.

Panel A: All Countries								
	APR Index				IR Sub-index			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
λ_{PR}	-0.43***	-0.44***	-0.49***	-0.49***	-0.07***	-0.08***	-0.07***	-0.08***
	[-3.04]	[-3.08]	[-3.63]	[-3.74]	[-3.10]	[-3.46]	[-3.57]	[-3.89]
$\lambda_{Volatility}$		-0.01		-0.01		-0.01		-0.01
		[-1.23]		[-0.95]		[-1.07]		[-0.76]
$\lambda_{Illiquidity}$			0.05	0.01			0.06	0.03
			[1.16]	[0.35]			[1.50]	[0.82]
Constant	-0.00	-0.00	-0.00	-0.00	0.00	-0.00	0.00	-0.00
	[-0.39]	[-0.79]	[-0.13]	[-0.58]	[0.18]	[-0.01]	[0.25]	[-0.03]
Obs	3,649	3,649	3,648	3,648	3,649	3,649	3,648	3,648
Adj R^2	0.17	0.27	0.26	0.35	0.16	0.27	0.25	0.35
Panel B: G10								
	APR Index				IR Sub-index			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
λ_{PR}	-0.29***	-0.23**	-0.29**	-0.21*	-0.04***	-0.04***	-0.04***	-0.03**
	[-2.92]	[-2.17]	[-2.43]	[-1.85]	[-2.97]	[-2.71]	[-2.67]	[-2.40]
$\lambda_{Volatility}$		0. 00		0.00		-0.00		-0.01
		[0.06]		[0.10]		[-0.11]		[-0.70]
$\lambda_{Illiquidity}$			-0.27**	-0.32**			-0.24*	-0.33**
			[-2.17]	[-2.42]			[-1.83]	[-2.53]
Constant	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
	[-0.40]	[-0.20]	[-0.72]	[-1.05]	[-0.31]	[-0.08]	[-0.60]	[-0.71]
Obs	2,049	2,049	2,048	2,048	2,049	2,049	2,048	2,048
Adj R^2	0.20	0.36	0.36	0.49	0.19	0.35	0.34	0.48

Table 11. U.S. Populist Rhetoric and Gubernatorial Elections in Swing States

This table reports regressions results for the estimation of the market price of APR index and IR sub-index (λ_{PR}), interaction variable between PR and Gubernatorial Election in swing states ($\lambda_{ElectionDummy*PR}$), and Gubernatorial Election in swing states dummy ($\lambda_{ElectionDummy}$). Election Dummy is equal to 1 if there is a gubernatorial election in at least one swing state in that year, and 0 otherwise. The control variables are volatility ($\lambda_{Volatility}$) and illiquidity ($\lambda_{Illiquidity}$) as in Menkhoff et al. (2012a). We report results for All Countries and G10 Countries. Newey and West (1987) t-statistics are reported in squared brackets, where *** indicates significance at the 1% level, ** at the 5% level, and * at the 10% level. The data are monthly between January 1998 and October 2018.

	All Countries		G10	
	APR Index	IR Sub-index	APR Index	IR Sub-index
λ_{PR}	-0.53***	-0.07***	-0.52***	-0.05**
	[-3.81]	[-3.95]	[-2.76]	[-2.40]
$\lambda_{ElectionDummy}$	-0.10	-0.07	-0.02	0.03
	[-1.31]	[-0.90]	[-0.13]	[0.26]
$\lambda_{ElectionDummy*PR}$	-0.27***	-0.06*	-0.38*	-0.02
	[-2.77]	[-1.83]	[-1.96]	[-1.12]
$\lambda_{Volatility}$	-0.00	-0.00	0.02	0.01
	[-0.68]	[-0.38]	[1.33]	[0.87]
$\lambda_{Illiquidity}$	0.03	0.04	-0.26	-0.21
	[0.75]	[1.02]	[-1.33]	[-1.48]
Constant	-0.00	-0.00	-0.00*	-0.00
	[-0.71]	[-0.35]	[-1.89]	[-1.48]
Obs	3,648	3,648	2,048	2,048
Adj R^2	0.50	0.51	0.73	0.72

Table 12. Portfolios of stocks sorted by shipping cost and APR Index

This table reports correlations between portfolios of stock returns sorted by shipping cost and APR Index. Portfolio 1 (P1) contains stocks with the lowest shipping cost, and Portfolio 3 (P3) contains stocks with the highest shipping cost. HML represents the portfolios that has a long position in the high shipping cost portfolio (P3) and a short position in the low shipping cost portfolio (P1). We report p-values in parenthesis. The data are monthly between January 1998 and December 2017.

Panel A: Pairwise correlations												
	Equally-weighted portfolios						Value-weighted portfolios					
	P1	P2	P3	P4	P5	HML	P1	P2	P3	P4	P5	HML
APR Index	0.07	0.03	0.01	-0.04	-0.04	-0.14 (0.03)	0.10	0.04	0.07	0.00	-0.02	-0.15 (0.02)
Panel B: Pairwise correlations controlling for Fama-French 3 factors												
	Equally-weighted portfolios						Value-weighted portfolios					
	P1	P2	P3	P4	P5	HML	P1	P2	P3	P4	P5	HML
APR Index	0.07	0.00	-0.03	-0.14	-0.13	-0.14 (0.03)	0.14	0.03	0.10	-0.02	-0.06	-0.15 (0.03)
Panel C: Pairwise correlations controlling for Fama-French 5 factors												
	Equally-weighted portfolios						Value-weighted portfolios					
	P1	P2	P3	P4	P5	HML	P1	P2	P3	P4	P5	HML
APR Index	0.05	-0.02	-0.07	-0.17	-0.14	-0.14 (0.04)	0.14	0.03	0.09	-0.06	-0.08	-0.16 (0.01)

Table 13. Cross-section FX Asset Pricing with U.S. Populist Rhetoric with DOL and CAR

This table reports regressions results for the estimation of the market price of APR index and IR sub-index (λ_{PR}). The control variables are Dollar factor (λ_{DOL}), Carry factor (λ_{CAR}) as in Lustig et al. (2011). Panel A (Panel B) reports results for All Countries (G10 Countries). Newey and West (1987) t-statistics are reported in squared brackets, where *** indicates significance at the 1% level, ** at the 5% level, and * at the 10% level. The data are monthly between January 1998 and October 2018.

Panel A: All Countries						
	APR Index			IR Sub-index		
	(1)	(2)	(3)	(4)	(5)	(6)
λ_{PR}	-0.32**	-0.31**	-0.25**	-0.07**	-0.08***	-0.05**
	[-2.45]	[-2.52]	[-2.09]	[-2.31]	[-2.76]	[-2.35]
λ_{DOL}		0.00	0.00		0.00*	0.00
		[1.63]	[1.45]		[1.70]	[1.38]
λ_{CAR}			0.01***			0.08***
			[2.76]			[2.67]
Constant	-0.00	-0.00	-0.00	0.00	0.00	-0.00
	[-2.04]	[-1.15]	[-0.63]	[0.96]	[-1.42]	[-0.65]
Obs	3,649	3,649	3,649	3,649	3,648	3,649
Adj R^2	0.10	0.25	0.44	0.51	0.57	0.10
Panel B: G10						
	APR Index			IR Sub-index		
	(1)	(2)	(3)	(4)	(5)	(6)
λ_{PR}	-0.19	-0.27*	-0.25**	-0.03*	-0.05**	-0.05**
	[-1.62]	[-1.93]	[-2.03]	[-1.88]	[-2.36]	[-2.48]
λ_{DOL}		0.00	0.00		0.00	0.00
		[1.15]	[0.98]		[1.03]	[0.70]
λ_{CAR}			0.00			0.00
			[1.17]			[1.28]
Constant	0.00	-0.00	-0.00	0.00	-0.00	-0.00
	[0.33]	[-1.15]	[-0.88]	[0.32]	[-0.93]	[-0.53]
Obs	2,049	3,649	3,649	3,649	3,648	3,649
Adj R^2	0.16	0.33	0.55	0.15	0.32	0.56

Internet Appendix to

"U.S. Populist Rhetoric and Currency Returns"

(Not for publication)

Appendix A: Populist Articles and LDA Classification

Two sample populist rhetoric articles and their LDA classification results are provided. The populist terms in the articles are in bold.

Article 1: (99% Fiscal topic)

Republicans trying to limit tax cuts' benefits for rich

BYLINE: Damian Paletta

Details are in flux, but some GOP lawmakers are wary of a backlash

White House officials and Republican leaders are preparing a set of broad income and corporate tax cuts while also looking for a way to keep their plan from being a massive windfall for the wealthiest Americans, two people familiar with the plan said.

Party leaders are quietly circulating proposals to lower the corporate tax rate to 20 percent from 35 percent and to lower the top individual income tax rate to 35 percent from 39.6 percent, according to the people familiar with the plan.

White House advisers are divided over whether to cut the top individual tax rate, and Republican leaders, aware the plan could be construed as a huge giveaway to the wealthy, are trying to design features in the package that would ensure that the rich don't get too large a share of the plan's tax relief.

Top White House negotiators and key GOP leaders have agreed on those targets, but apparently President Trump has not. On Sunday, as he was about to board Air Force One in New Jersey, Trump told reporters that he hoped to see the corporate tax rate lowered to 15 percent, a level that his own negotiators had privately dismissed weeks ago.

"We'll see what happens, but I hope it's going to be 15 percent," he told reporters. "But it's going to be substantially lower so we bring jobs back to the country."

The lack of agreement, even days before the plan is set to be unveiled more broadly, underscores the difficulty Republicans face in uniting behind a tax bill. GOP leaders, including House Speaker Paul D. Ryan (Wis.),

have said it is impossible to cut the corporate rate to 15 percent without adding too much to the federal debt. As it stands, the tax cut is expected to add at least $1 trillion to the debt, and potentially much more.

As part of the package of tax cuts, the White House and GOP leaders are hoping to persuade their Republican colleagues to cut the rate paid by thousands of businesses that pay taxes through the individual income tax code to 25 percent from 39.6 percent, said the people, who spoke on the condition of anonymity because they were not authorized to speak about the private discussions.

GOP leaders plan to unveil specifics of their targets to their colleagues on Capitol Hill this week, and the details could change as negotiations go forward.

Republicans plan to push for collapsing the seven existing income tax rates to three new brackets, with a top bracket of 35 percent. It is unclear what income level they want to qualify for that tax bracket.

Trump made additional comments on the tax brackets on the tarmac Sunday, but it wasn't clear exactly what he was referring to, and the White House didn't immediately clarify his intention.

"We're going to bring the individual rate to 10 percent or 12 percent, much lower than it is right now," he said.

Among details that have become public, the plan's benefits would accrue largely to the wealthy - an awkward position for a president who promised that his administration would be an economic boon for working-class and middle-class households.

Even the tax cut Trump is hoping to advance for companies that pay individual taxes would help thousands of upper-income business owners in a way that critics have said could be gamed to lower their taxes even more. White House officials have said they would create "guardrails" to prevent against this but have not explained how.

Many contours of the talks are similar to what Trump proposed in April. The Tax Policy Center, a nonpartisan group that reviews tax proposals, found that roughly 50 percent of the cuts from that plan would benefit the **top 1 percent** of U.S. households. The Tax Policy Center found that those households would get an average annual tax cut of $175,000.

External estimates, based on initial reports of the plan and not full details, found that it would cut taxes by $5.5 trillion over 10 years. Some Senate Republicans are trying to tailor the tax cut so that it reduces revenue only by $1.5 trillion over 10 years.

That means the White House and congressional Republicans would have to find $4 trillion in tax breaks to eliminate, something that could prove difficult if they insist on keeping tax rates low for the wealthy.

While rate cuts are broadly popular, many tax breaks are either also popular - such as deductions for charitable giving or for interest paid on a home mortgage - or enjoy support from powerful industries and lobbying groups.

Some details of the plan were reported Friday night by The Washington Post, and others were first reported Saturday by Axios.

Article 2: (39% Election topic, 61% International Relations topic)

In China, wake of Trump's Super Tuesday wins churns up unlikely supporters

BYLINE: Simon Denyer

BEIJING - There was an element of schadenfreude - the pleasure derived from another's misfortune. And then there was the principle that the enemy of my enemy is my friend.

The view from here of Super Tuesday highlighted both. But plenty of Chinese people who tuned in just seemed to be enjoying the show.

Donald Trump's latest victories in the race for the Republican nomination unleashed a wave of surprisingly positive comments across Chinese social media, from admiration of his credentials as a "strongman" to hopes he will lift the world economy "out of its quagmire" - and one assertion that he really is not "crazy and stupid."

Last week, Chinese Foreign Ministry spokeswoman Hua Chunying said her country was watching the U.S. presidential race with "bemused interest," and there was a strong current of opinion on social media delighting in America's seemingly chaotic political system.

"It's great fun watching the dogfight in the United States," one user wrote. "This is their democracy."

Other Netizens enjoyed what they saw as their great superpower rival pressing the self-destruct button. "Trump is very cute with a big mouth," one user wrote. "I hope he reigns [over] the United States and makes it as messed up as the Middle East."

Another said he hoped with his "whole heart" that Trump wins the presidential election: "That way I can watch the comedy that is the United States for several years."

But as the nationalist Global Times tabloid noted in an op-ed Thursday, the leading GOP candidate "has surprisingly earned himself a few fans in China."

As the paper noted, it is surprising because Trump has not always had good things to say about China. Although he says he "loves China," and "people from China love me," he also accuses it of stealing American jobs. He promises to immediately declare it a currency manipulator. He rails against its "Great Wall of Protectionism" and pledges to stand firm against its "cheating" and "financial blackmail."

"Many of his ideas are far from heartwarming," columnist Ai Jun wrote in the Global Times piece. "In the normal run of events, China should reject an **arrogant**, hawkish candidate like him out of hand."

But Trump has one thing in common with Chinese people, the columnist suggested: "His winning streak is solid proof that U.S. voters are tired of Washington politics."

"The Chinese people also have had enough of U.S. politicians' deeds betraying their words," Jun wrote.

In an article posted on the party-controlled website, the Paper, and widely circulated online, Shen Xincheng, a doctoral candidate at the Georgia Institute of Technology, urged Chinese people not to rush to judgment, even if the Republican Party and observers alike see Trump as "crazy and stupid."

"To the public, he is the most human among the GOP candidates," Shen wrote. "What he says is truth, as even GOP voters know very well themselves."

Trump has another attraction to the nationalists who often dominate the debate on Chinese social media: He isn't Hillary Clinton.

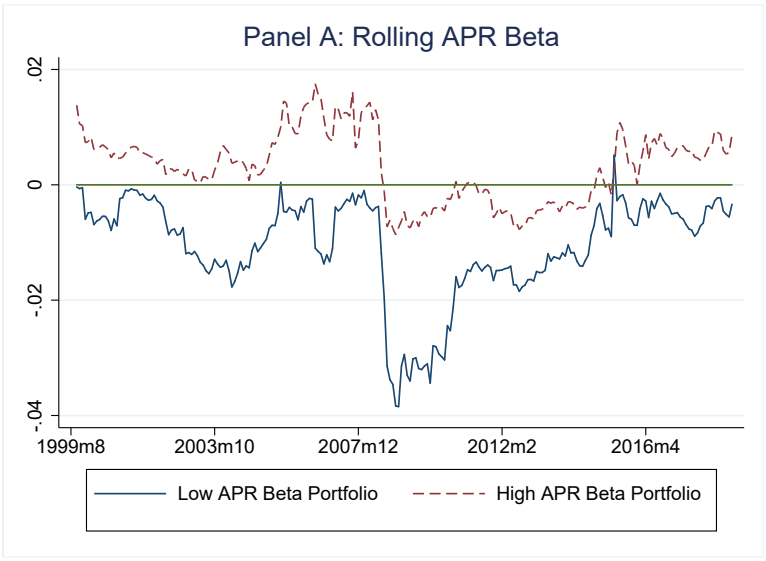
He would be a better president than Clinton "no matter what," one user commented.

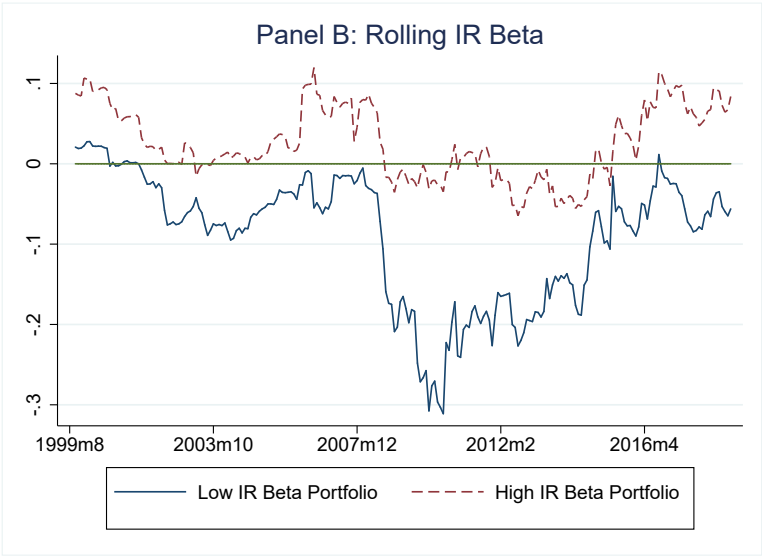
"She seems to be less welcomed," the Global Times wrote, "given her tough attitude toward Beijing, incessant accusations about China's human rights record, and her push for the U.S. re-balance to the Asia-Pacific strategy as secretary of state."

Trump sometimes seems fixated on China. But he uses it as a foil to reflect on the relative decline and weakness of the United States. If China can build a Great Wall, he observed this week, without tractors or cranes, then he can build one along the Mexican frontier.

Of course, Chinese social media is a poor reflection of public opinion. Perhaps the approving comments directed at Trump merely reflect the notion that a strongman, and a businessman, in the White House might not be such bad news for a one-party authoritarian regime that commands tremendous economic power.

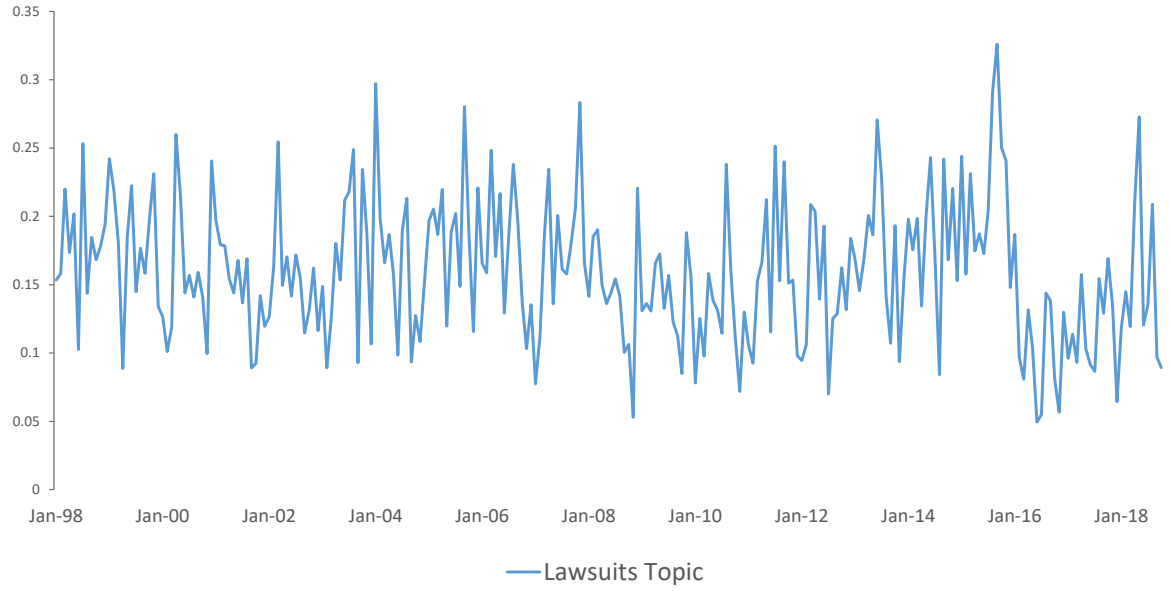
Figure A1. Rolling APR and IR Betas of Porfolios





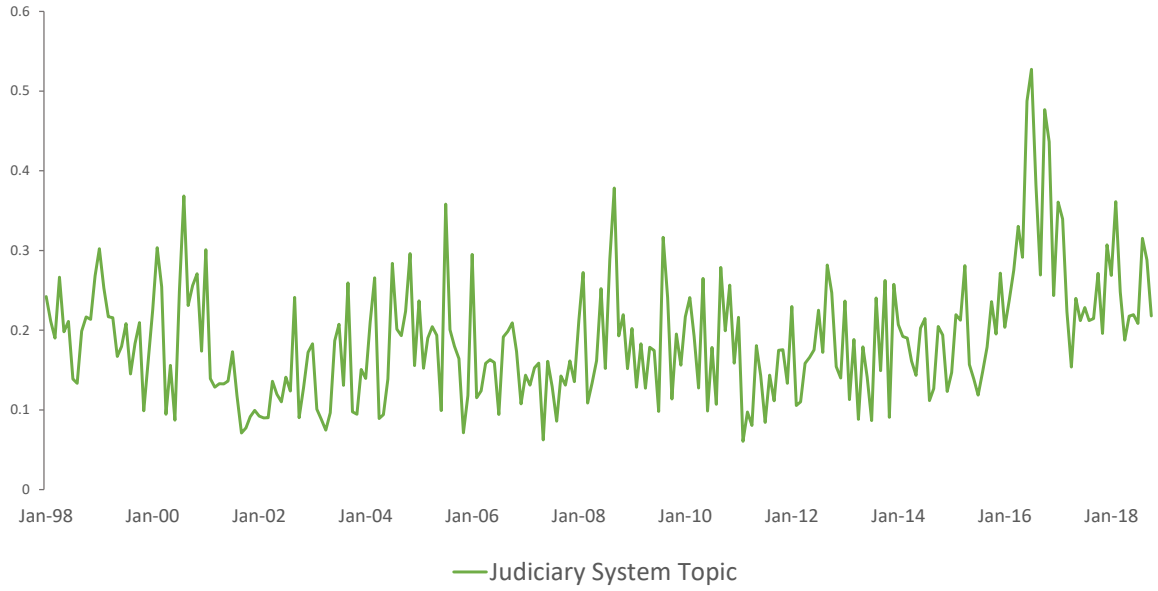
The figure shows the rolling betas of APR (*Panel A*), and IR (*Panel B*). In each panel, we plot the rolling betas of low beta portfolio and high beta portfolio. The monthly data are between January 1998 and October 2018.

Figure A2. Lawsuits Topic Proportion



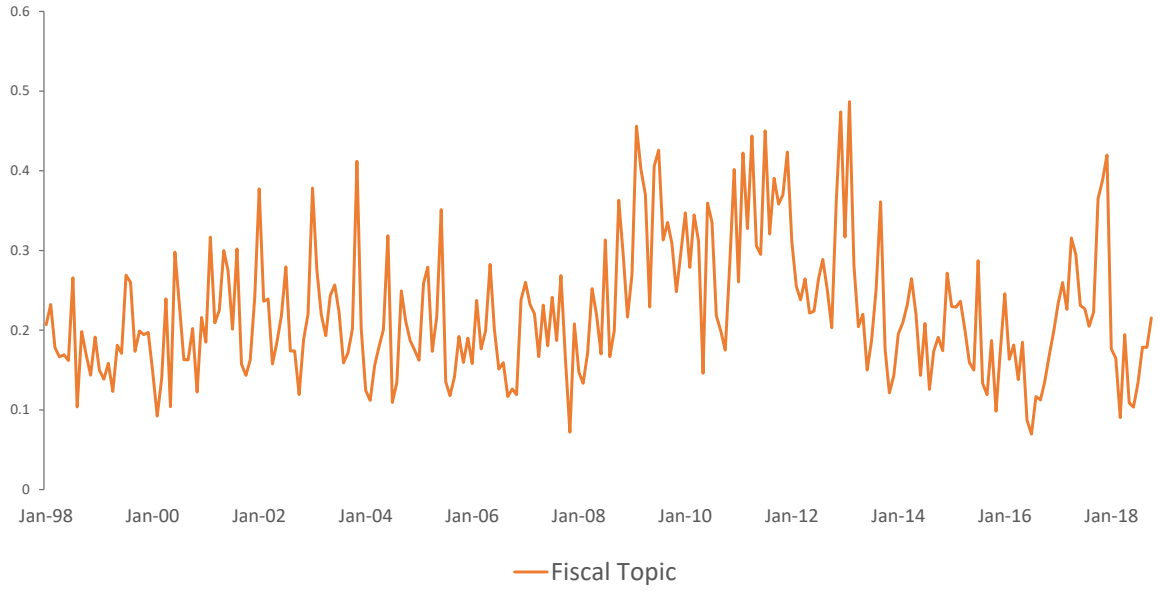
Lawsuits Topic Proportion. The monthly average proportion of Lawsuits topic in populist rhetoric articles across 5 newspapers the New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times between January 1998 and October 2018.

Figure A3. Judiciary System Topic Proportion



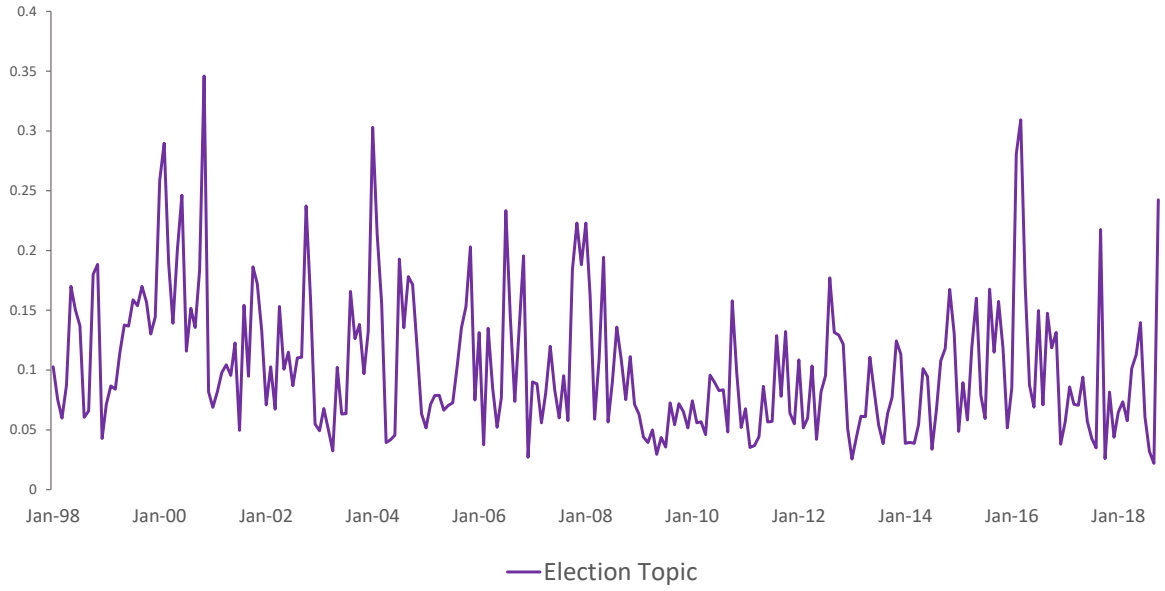
Judiciary System Topic Proportion. The monthly average proportion of Judiciary System topic in populist rhetoric articles across 5 newspapers the New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times between January 1998 and October 2018.

Figure A4. Fiscal Topic Proportion



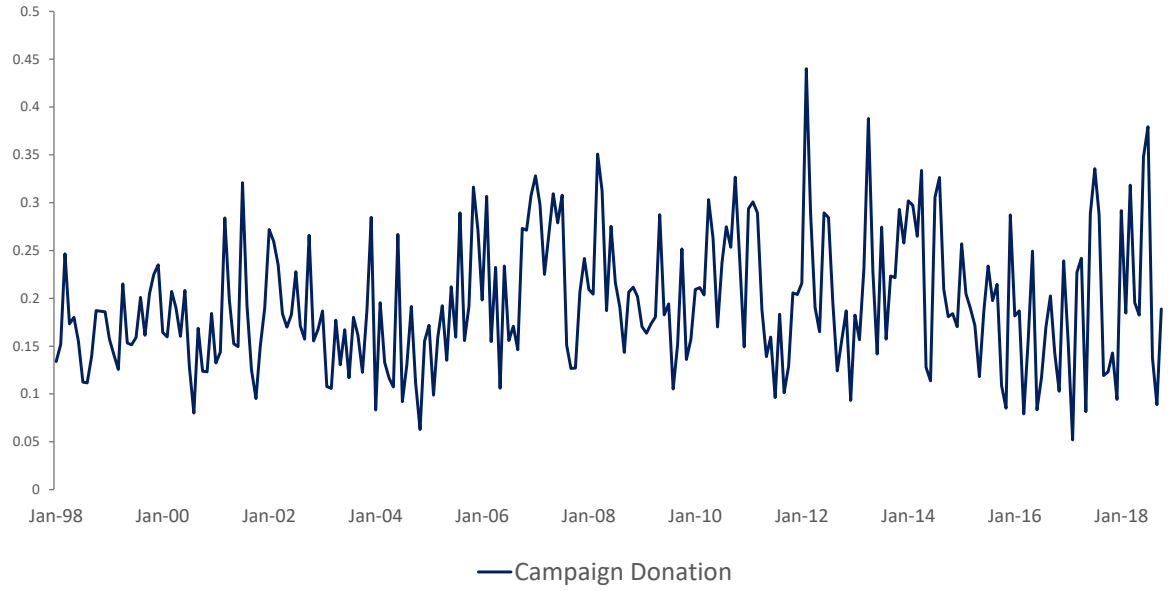
Fiscal Topic Proportion. The monthly average proportion of Fiscal topic in populist rhetoric articles across 5 newspapers the New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times between January 1998 and October 2018.

Figure A5. Election Proportion



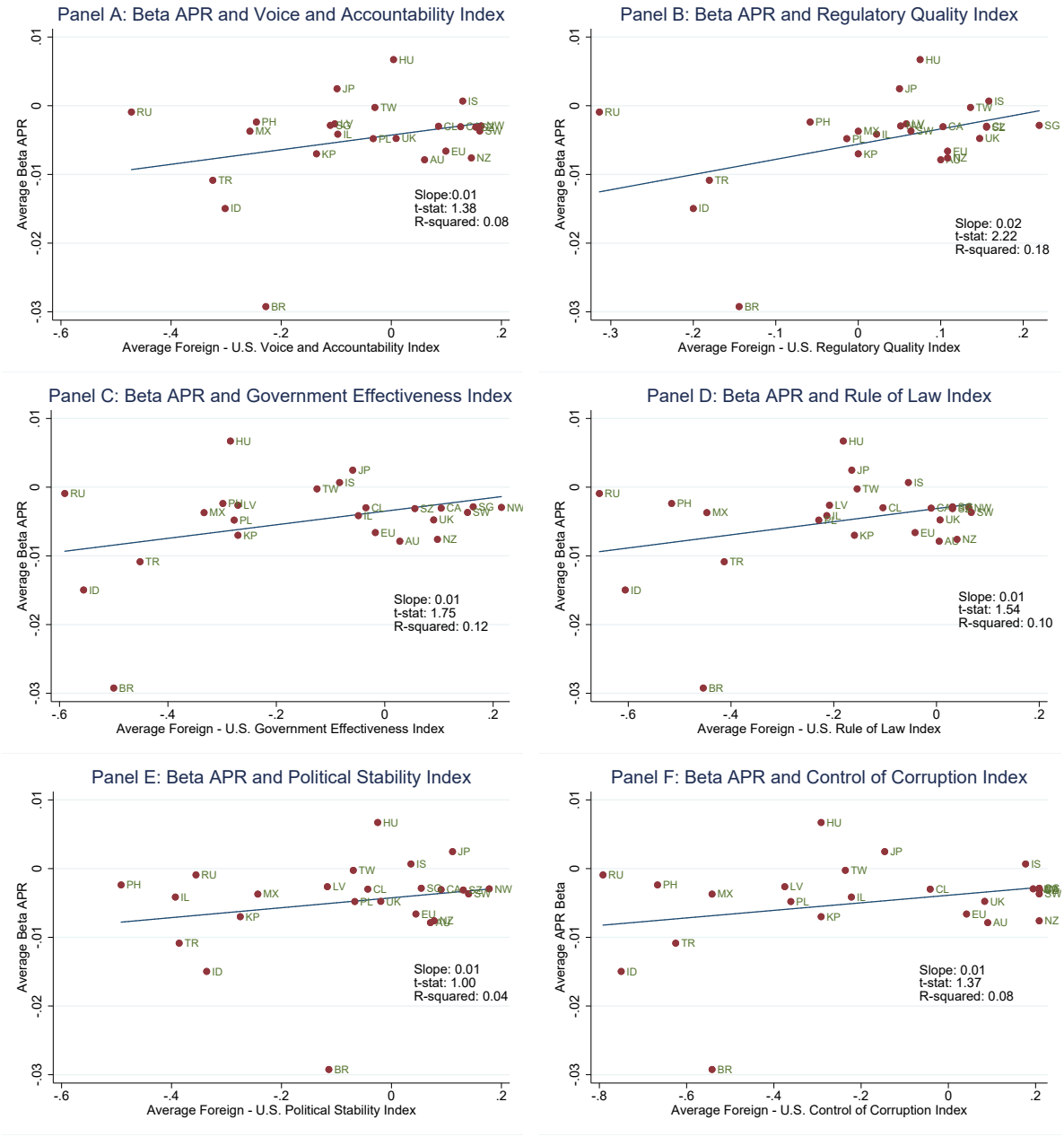
Election Topic Proportion. The monthly average proportion of Election topic in populist rhetoric articles across 5 newspapers the New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times between January 1998 and October 2018.

Figure A6. Campaign Donation Proportion



Campaign Donation Topic Proportion. The monthly average proportion of Campaign Donation topic in populist rhetoric articles across 5 newspapers the New York Daily News, The New York Post, USA Today, The Washington Post, and The New York Times between January 1998 and October 2018.

Figure A7. Average APR Beta and Institutional Quality



The figure shows average APR beta and a range of institutional quality dimensions provided by World Bank (*Panel A*: Voice and Accountability, *Panel B*: Regulatory Quality, *Panel C*: Government Effectiveness, *Panel D*: Rule Of Law, *Panel E*: Political Stability, *Panel F*: Control of Corruption). The monthly data are between January 1998 and December 2017.

Table A1. Distribution of LDA Topic Keywords

The table reports results from LDA implemented on articles containing populist rhetoric. For each topic, the top 15 key words and their associated probability are reported.

Topic 0 (Lawsuits)		**Topic 1 (Judiciary System)**		**Topic 2 (Fiscal)**	
Weight	Word	Weight	Word	Weight	Word
0.003	park	0.003	suprem	0.004	insur
0.003	william	0.002	nomin	0.003	price
0.003	site	0.002	reagan	0.003	medicar
0.002	town	0.002	nomine	0.003	reduc
0.002	prosecutor	0.002	convent	0.003	debt
0.02	crime	0.002	constitut	0.003	growth
0.002	area	0.002	media	0.003	credit
0.002	mail	0.002	women	0.003	save
0.002	web	0.002	abort	0.003	taxpay
0.002	age	0.002	vice	0.003	deficit
0.002	car	0.002	gun	0.003	consum
0.002	trial	0.002	robert	0.003	energi
0.002	room	0.002	civil	0.002	capit
0.002	stori	0.002	appeal	0.002	revenu
0.002	activ	0.002	messag	0.002	stock
Topic 3 (Election)		**Topic 4 (Campaign Donation)**		**Topic 5 (International Relations)**	
Weight	Word	Weight	Word	Weight	Word
0.004	iowa	0.005	donor	0.005	china
0.004	seat	0.005	donat	0.003	terrorist
0.003	rep	0.005	fundrais	0.003	terror
0.003	hampshir	0.004	lobbi	0.003	iraqi
0.003	south	0.004	maryland	0.003	intellig
0.003	immigr	0.004	romney	0.003	japan
0.003	gilmor	0.003	pack	0.003	minist
0.002	davi	0.003	gov	0.003	nuclear
0.002	tuesday	0.003	legislatur	0.003	bomb
0.002	carolina	0.003	bradley	0.002	weapon
0.002	edward	0.003	soft	0.002	european
0.002	night	0.003	influenc	0.002	armi
0.002	gov	0.003	dean	0.002	afghanistan
0.002	contest	0.003	rep	0.002	troop
0.002	floria	0.003	mail	0.002	pentagon

Table A2. Correlation Coefficients of Currency Trading Strategies

This table reports correlation coefficients across a set of currency trading strategies for G10 sample (Panel A), All currencies sample (Panel B). The portfolios are rebalanced monthly on the basis of APR Index (APR), forward differential (CAR), momentum (MOM). the DOL portfolio is a portfolio that longs all currencies against the U.S. Dollar. In each panel, portfolios are split between two periods, including pre-crisis (January 1998 to November 2007), and post-crisis (June 2009 to October 2018).

Panel A: G10 sample

	Pre-crisis						Post-crisis				
	APR	IR	CAR	MOM	DOL		APR	IR	CAR	MOM	DOL
APS	1					APS	1				
IR	0.73	1				IR	0.83	1			
CAR	0.38	0.59	1			CAR	0.27	0.33	1		
MOM	0.05	0.21	0.24	1		MOM	0.11	0.04	-0.19	1	
DOL	-0.07	0.01	0.13	-0.01	1	DOL	0.31	0.31	0.52	-0.27	1

Panel B: All countries sample

	Pre-crisis						Post-crisis				
	APR	IR	CAR	MOM	DOL		APR	IR	CAR	MOM	DOL
APS	1					APS	1				
IR	0.65	1				IR	0.79	1			
CAR	0.53	0.34	1			CAR	0.17	0.33	1		
MOM	0.25	0.15	0.23	1		MOM	0.19	0.05	-0.37	1	
DOL	0.07	-0.07	0.11	0.20	1	DOL	0.38	0.34	0.58	-0.34	1

Table A3. FX Asset Pricing with U.S. Populist Rhetoric - Sub-indices

This table reports regressions results for the estimation of the market price of sub-indices identified by LDA Algorithm (λ_{PR}). The control variables are volatility ($\lambda_{Volatility}$) and illiquidity ($\lambda_{Illiquidity}$) as in Menkhoff et al. (2012a). Newey and West (1987) t-statistics are reported in squared brackets, where *** indicates significance at the 1% level, ** at the 5% level, and * at the 10% level. The data are monthly between January 1998 and October 2018.

Panel A: All Countries					
	Lawsuits	Judiciary System	Fiscal	Election	Campaign Donation
λ_{PR}	-0.07***	-0.10***	-0.10***	-0.07***	-0.08***
	[-3.57]	[-3.42]	[-4.02]	[-2.95]	[-3.40]
$\lambda_{Volatility}$	-0.01	-0.01	-0.01	-0.01	-0.01
	[-1.20]	[-0.72]	[-0.96]	[-1.02]	[-0.76]
$\lambda_{Illiquidity}$	0.02	0.01	0.02	0.02	0.00
	[0.57]	[0.17]	[0.38]	[0.40]	[0.00]
Constant	-0.00	-0.00	-0.00	-0.00	-0.00
	[-0.64]	[-0.72]	[-0.25]	[-0.33]	[-0.16]
Obs	3,648	3,648	3,648	3,648	3,648
Adj R^2	0.36	0.34	0.34	0.34	0.35
Panel B: G10					
	Lawsuits	Judiciary System	Fiscal	Election	Campaign Donation
λ_{PR}	-0.01	-0.04*	-0.04	-0.02	-0.03
	[-0.73]	[-1.80]	[-1.45]	[-1.49]	[-0.84]
$\lambda_{Volatility}$	0.00	-0.00	-0.01	-0.00	0.00
	[0.11]	[-0.19]	[-0.17]	[-0.43]	[0.21]
$\lambda_{Illiquidity}$	-0.31	-0.28	-0.34	-0.34	-0.34
	[-2.41]	[-1.98]	[-2.53]	[-2.40]	[-2.49]
Constant	-0.00	-0.00	-0.00	-0.00	-0.00
	[-1.01]	[-1.33]	[-0.52]	[-0.81]	[-1.24]
Obs	2,048	2,048	2,048	2,048	2,048
Adj R^2	0.50	0.49	0.49	0.50	0.51

Table A4. FX Asset Pricing with U.S. Populist Rhetoric - Individual newspapers

This table reports regressions results for the estimation of the market price of U.S. populist rhetoric constructed by individual newspapers (λ_{PR}). UST is the USA Today, WSP is the Washington Post, NYT is the New York Times, NYP is the New York Post, DNY is the Daily News New York. The control variables are volatility ($\lambda_{Volatility}$) and illiquidity ($\lambda_{Illiquidity}$) as in Menkhoff et al. (2012a). Newey and West (1987) t-statistics are reported in squared brackets, where *** indicates significance at the 1% level, ** at the 5% level, and * at the 10% level. The data are monthly between January 1998 and October 2018.

Panel A: All Countries					
	UST	WSP	NYT	NYP	DNY
λ_{PR}	-0.53***	-0.23*	-0.68***	-0.30	-0.59***
	[-3.09]	[-1.81]	[-3.76]	[-1.58]	[-2.66]
$\lambda_{Volatility}$	-0.01	-0.01**	-0.01	- 0.01	-0.01
	[-1.08]	[-2.01]	[-0.92]	[-0.74]	[-1.32]
$\lambda_{Illiquidity}$	0.04	0.02	-0.00	0.00	-0.01
	[0.90]	[0.47]	[-0.03]	[0.08]	[-1.28]
Constant	-0.00	0.00	-0.00	-0.00	0.00
	[-0.52]	[0.49]	[-0.18]	[1.06]	[0.30]
Obs	3,648	3,648	3,648	3,648	3,595
Adj R^2	0.36	0.34	0.34	0.33	0.31
Panel B: G10					
	UST	WSP	NYT	NYP	DNY
λ_{PR}	-0.26*	-0.08	-0.26	0.01	0.11
	[-1.96]	[-0.48]	[-1.19]	[0.06]	[0.49]
$\lambda_{Volatility}$	-0.01	-0.01	0.00	- 0.00	-0.01
	[-0.79]	[-0.98]	[0.00]	[-0.48]	[-0.94]
$\lambda_{Illiquidity}$	-0.30**	-0.35**	-0.37***	-0.39***	-0.42***
	[-2.22]	[-2.54]	[-2.96]	[-3.07]	[-3.30]
Constant	-0.00	-0.00	-0.00	-0.00	0.00
	[-0.69]	[-0.15]	[-1.15]	[-0.14]	[0.16]
Obs	2,048	2,048	2,048	2,048	2,022
Adj R^2	0.48	0.50	0.51	0.48	0.47

Table A5. FX Asset Pricing Tests: Factor-Mimicking Portfolio

This table reports regressions results for the two-factor model including the DOL and FPR risk factors. Test assets used are 6 carry portfolios for All Countries sample and 5 carry portfolios for G10 sample. Portfolios are rebalanced monthly. Newey and West (1987) and Shanken (1985) t-statistics are reported in squared brackets, where *** indicates significance at the 1% level, ** at the 5% level, and * at the 10% level. We also report χ^2. Figures in parentheses are p-values. The data are monthly between January 1998 and October 2018.

Panel A: All Countries

	APR Index				IR Sub-index			
	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}
FMB	0.31**	4.86***	37.79***	33.45***	0.29**	1.13***	35.33***	29.99***
(Sh)	[2.24]	[3.77]	(0.00)	(0.00)	[2.06]	[4.76]	(0.00)	(0.00)
(NW)	[2.24]	[3.87]			[2.07]	[4.94]		

Panel B: G10

	APR Index				IR Sub-index			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}	λ_{DOL}	λ_{FPR}	χ^2_{NW}	χ^2_{SH}
FMB	0.06	1.55*	1.96	1.93	0.06	0.29*	1.95	1.91
(Sh)	[0.37]	[1.67]	(0.74)	(0.75)	[0.37]	[1.82]	(0.75)	(0.75)
(NW)	[0.37]	[1.67]			[0.37]	[1.83]		