Monetary Policy Surprises and the Global Interest Rate Cycle

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Abstract

Monetary policy surprises comove across countries, following the global interest rate cycle. During major global cycles, such as the Great Recession easing and the 2022–3 tightening, each central bank generated monetary policy surprises that averaged a quarter point cut and increase, respectively. I show changes in global short-term rates are the strongest predictor of monetary policy surprises, outperforming US and domestic factors, including asset prices and news surprises. A 10 basis point increase in global rates predicts a 1.2 basis point positive surprise. This predictability is driven by markets underreacting to global signals, revealing an international dimension to the puzzle of monetary policy surprise predictability.

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Keywords: monetary policy surprise, international monetary policy, global interest rate cycle, global signals, predictability

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1 Introduction

Monetary policy surprises—unexpected changes in interest rates around central bank announcements—are systematically predictable using publicly available information (Cieslak, 2018; Schmeling, Schrimpf, and Steffensen, 2022), despite decades of research on market efficiency and strong financial incentives to forecast policy accurately.[1] Recent work has proposed explanations for this predictability, including that markets underestimate how central banks respond to news (Bauer and Swanson, 2023a) or misperceive the precision of economic signals (Sastry, 2022). However, these explanations focus primarily on US monetary policy and do not speak to patterns across countries. Understanding why predictability persists matters both for interpreting monetary policy surprises used throughout macroeconomics and for understanding limits to market efficiency in the interest rate derivatives market, one of the world's largest and most liquid.[2]

This paper shows that monetary policy surprise predictability has a strong international dimension. Using high-frequency data to assess 2,000 monetary policy statements from nine central banks over 1996–2024, I make three contributions. First, I show that monetary policy surprises co-move across countries, following the global interest rate cycle.[3] Second, I demonstrate that changes in global short-term rates are the strongest predictor of monetary policy surprises, outperforming asset prices, news surprises, and other domestic factors. Third, I show that this predictability reflects markets systematically underreacting to signals from global interest rates, revealing that the international dimension is crucial to understanding the puzzle of monetary policy surprise predictability.

I first document that monetary policy surprises comove strongly across countries, tracking the global interest rate cycle. This comovement is striking: if monetary policy surprises represent idiosyncratic shocks or private central bank information, they should not correlate across countries. Moreover, when one central bank surprises markets, subsequent announcements at other central banks should be less surprising as markets update their expectations. Yet the data show persistent, synchronized surprises across all nine central banks, and the magnitudes are economically significant. During major easing episodes—the dot-com bust and the Great Recession—each central bank generated negative monetary policy surprises averaging a quarter-point cut. During the 2022-23 tightening, surprises averaged a quarter-point increase.

Which factors best predict monetary policy surprises? I conduct a horse race between the leading explanations in the literature: asset price changes (Schmeling, Schrimpf, and Steffensen, 2022) and news surprises (Bauer and Swanson, 2023a). Changes in global interest rates outperform both. A 10 basis point rise in short-term rates across developed countries during the two weeks before an announcement predicts a 1.2 basis point increase in the monetary policy surprise. This effect is

[1] I follow the literature in using the term "monetary policy surprise" to describe the high-frequency change in interest rates around central bank announcements, even though, as this paper demonstrates, these changes are partially predictable using public information. This terminological convention does not imply that the entire change is unexpected.

[2] According to data from the Bank for International Settlements, interest rate derivatives accounted for 78 percent of the notional outstanding value of global over-the-counter derivatives at the end of 2024.

[3] I define this cycle to be the average movement of short-term rates across countries.

highly significant, robust across measurement approaches, and holds for every country in my sample including the United States. In horse-race regressions that pit global rates against asset prices and news surprises simultaneously, global rates emerge as the dominant predictor.

Why do markets leave these predictable returns unexploited? I show the answer lies in how markets process different types of signals. Markets systematically underreact to signals from global interest rates. When global rates rise before a central bank announcement, economic forecasters subsequently revise their growth and inflation expectations upward—revealing they initially placed too little weight on the global signal. Domestic rate changes show no such pattern. This differential response establishes that markets have particular difficulty responding to global signals. The international dimension of monetary policy predictability, overlooked in prior research, is key to understanding why these patterns persist.

The paper contributes to the large literature studying monetary policy surprises. Early papers that pioneered the measurement of monetary policy surprises through the high-frequency change in interest rates around central bank announcements include Kuttner (2001); Gürkaynak, Sack, and Swanson (2005). Using these techniques, a number of papers expanded on the results in Romer and Romer (2000) to document that monetary policy surprises are often associated with positive revisions in economic forecasts, suggesting that monetary policy surprises may yield information effects in addition to pure policy shocks (Campbell et al., 2012; Nakamura and Steinsson, 2018; Lunsford, 2020). Jarociński and Karadi (2020) decompose monetary policy surprises into monetary policy shock and information effect components. Miranda-Agrippino and Ricco (2021) consider how to control for informational differences between the public and the central bank. Acosta (2026) considers a related decomposition using text analysis.[4] Other papers also demonstrated that monetary policy surprises are predictable. Cieslak (2018) first documented this phenomenon, demonstrating that the largest errors occur during contractions when markets overestimate future short rates, leading to excess bond returns. Schmeling, Schrimpf, and Steffensen (2022) demonstrate that similar patterns also hold in money market derivatives and show that stock price declines predict excess returns from going long in money market futures.

Recent work investigates why this predictability persists despite market incentives to exploit it. Bauer and Swanson (2023b) argue that this predictability results from central banks responding differently to news than markets expect. In Bauer and Swanson (2023a), the authors argue that once this response-to-news channel is controlled for, the evidence favoring strong information effects is nullified. Sastry (2022) proposes a different explanation, suggesting instead that markets may place too little faith in public signals about shocks to the economy. The author proposes a test to distinguish between the two potential explanations and finds that this explanation fits the data better. Jarocinski and Karadi (2026) decompose monetary policy surprises into monetary policy shocks, central bank information shocks, and Fed-response-to-news shocks. Miranda-Agrippino and Williams (2026)

[4]In another paper (Cotton, 2026), I analyze how economic forecasts respond to monetary policy surprises in a large panel of countries/zones. That paper studies in more detail implications for information effects. I previously considered the results in that paper and this one together but, based on the advice of reviewers, have separated the two sets of findings.

adjudicate between possible channels using the predictability of news surprises. All of these papers consider predictability in single-country settings, primarily focusing on the United States. I show that the international dimension is crucial to understanding predictability. Monetary policy surprises comove with the global interest rate cycle, recent changes in global rates are the strongest predictor of monetary policy surprises, and the predictability is a result of markets underreacting to global signals.

The paper proceeds as follows. The empirical approach and data are outlined in Section 2. Section 3 describes how monetary policy surprises co-move with each other and with the global interest rate cycle. Section 4 examines the predictability of monetary policy surprises. Section 5 investigates why the global interest rate cycle predicts monetary policy surprises. Section 6 concludes.

2 Data

I construct monetary policy surprises for nine advanced economy central banks: Australia, Canada, the euro zone, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States. The sample spans 1996 to 2024, covering approximately 2,000 central bank announcements. I supplement these high-frequency data with economic news surprises, asset prices, interest rates, and consensus forecasts.

Monetary Policy Surprises I construct monetary policy surprises using the same approach as in Cotton (2026). I provide an overview here; see that paper for technical details. By default, I construct monetary policy surprises by measuring the average change in short-term interest rates, using interest rates for bonds and swaps with a maturity of one year or less, in a narrow window around central bank statements.[5] I measure the change in interest rates within the standard 30-minute window whenever possible but if an instrument is not available in that window, as is sometimes the case especially for smaller countries/zones, I consider an extended two-hour window.[6] I verify that I obtain similar results when using a strict 30-minute window. I compile the dates and times of central bank statements from Bloomberg calendar, supplemented with details from central bank websites.[7] I also measure the monetary policy surprises using alternative approaches, including measuring the six-month change from fitted Nelson-Siegel yield curves before and after the statement.[8]

Table 1 summarizes the sample by country/zone. The second column shows the first year for which I have data, the third column shows the number of central bank statements for which I have the

[5] I obtain the intraday bond and swap data from Refinitiv and CME, as described in Section A1 of Cotton (2026).

[6] For the interest rate before the statement, I consider the earliest available interest rate in a window from 10 minutes before to immediately before the statement or, if that is not available, the latest available interest rate from one hour before to 10 minutes before the statement. For the interest rate after the statement, I consider the latest available interest rate in a window from 10 minutes after to 20 minutes after the statement or, if that is not available, the earliest available interest rate from 20 minutes to one hour after.

[7] For more detail, see Section A2 of Cotton (2026).

[8] I describe how I process the data to construct these measures in Section A3 of Cotton (2026).

Table 1: Data Summary by Country/Zone

Country	Start Year	Number of Statements	Number of MPS
Australia	1998	295	244
Canada	2001	191	184
Eurozone	1999	301	301
New Zealand	1999	191	167
Norway	1999	208	183
Sweden	1999	167	158
Switzerland	2004	87	87
United Kingdom	1997	298	273
United States	1996	239	238
Total		1977	1835

Notes: The second column represents the first year for which I have the time the announcement took place. The third column represents the number of announcements for which I have the time of the announcement. The fourth column represents the number of announcements for which I have both the time and interest rate data such that I can construct the default monetary policy surprise measure. Note that the number of monetary policy surprises differs from the number shown in Table 1 in Cotton (2026) because that paper considers events where monetary policy surprises constructed using either short-term or medium-term monetary policy surprises are defined, whereas this table considers only short-term monetary policy surprises. Sources: Bloomberg, CME, Consensus Economics, and Refinitiv.

release time, and the fourth column shows the number of these statements for which I can construct the default monetary policy surprise. I selected these nine countries/zones because they offer high-quality financial data for high-frequency interest rate measurement and are comparable, financially developed economies.[9] The sample spans 1996, when the Refinitiv high-frequency data begin, to 2024. By default, I exclude the COVID-19 pandemic period by removing surprises in 2020.

The advantage of constructing my own monetary policy surprises is that I ensure measures are constructed in an identical manner across countries/zones. Indeed, as Brennan et al. (2025) describe, measurement differences across monetary policy surprises can yield differing results. However, these measures closely match existing monetary policy surprise measures for individual countries/zones with correlations ranging from 0.77 to 0.95 across the seven countries/zones for which I found comparable intraday surprises. I also verify that the choice of data, the measurement approach, and the processing of the data does not lead to large differences in the measures.[10]

Other Variables I control for recent economic news surprises primarily using Bloomberg data, but extending series where possible with data from Informa. For most series, I measure the surprise as the release minus the forecast.[11] Bloomberg provides a measure of the relevance of each economic re-

[9]Japan was constrained by the zero lower bound for most of the sample period, leading to small monetary policy surprises and interest rates that differed substantially from other developed countries/zones. It is challenging to construct monetary policy surprises for China, as discussed in Miranda-Agrippino, Nenova, and Rey (2026).

[10]See Section A4 of Cotton (2026) for further discussion of these monetary policy surprise robustness checks.

[11]For example, if the forecast of month-over-month CPI inflation was 0.2 percent, but the number in the release was 0.3 percent, the surprise would be 0.1 percentage point. For a handful of series measured in levels, such as the number of people employed, I divide the surprise by the forecast level (and multiply it by 100) so that the surprise is stationary.

lease, which is calculated from the share of Bloomberg Terminals that follow that economic release.[12] For each country/zone, I compile surprises for CPI inflation, GDP, and unemployment plus other releases that are marked among the top 10 most relevant. The most relevant surprises correspond to the series that are most closely followed by markets, though there are some differences across countries. For example, housing starts are more relevant in economies such as Australia, Canada, and New Zealand, due perhaps to their faster-growing populations. I summarize the economic releases in Table A.1.

I obtain data for other measures of global conditions, including changes in benchmark interest rates, stock prices, exchange rates, and commodity prices. These are constructed using daily Bloomberg and Refinitiv data.[13] I obtain data on the policy rates on a given day in each country/zone from the Bank for International Settlements. I also measure the monthly change in annual forecasts for GDP growth, CPI inflation, and unemployment for each country/zone in my sample using data from Consensus Economics.[14]

3 Monetary Policy Surprise Comovement and Correlation with the Global Interest Rate Cycle

This section establishes my first main contribution: I document that monetary policy surprises co-move with the global interest rate cycle across all nine central banks in my sample. I demonstrate three key findings. First, I show that average monetary policy surprises display clear cyclical variation, moving together over time. Second, I show that this co-movement aligns systematically with the global interest rate cycle: during global easings (tightenings), monetary policy surprises are negative (positive). Third, I quantify the economic magnitudes: during major cycles such as the Great Recession easing and the 2022–3 tightening, each central bank generated monetary policy surprises averaging a quarter point. This co-movement across countries has not been documented in prior

For a handful of series that are measured as changes in levels, such as the change in the number of people employed, I divide the surprise by an appropriate variable in levels (such as the number of people employed) so that the surprise is stationary. The most relevant GDP series are annualized for some countries but not for others. To ensure that these series are comparable, I divide the surprises for annualized countries/zones by four. I show which level variables I divide by and any scalar adjustments in Table A.1. I set the primary CPI measure for Sweden to be the month-over-month change, which is available for many more surprises than the CPI level, even though the CPI level has a slightly higher relevance number.

[12] I do not consider news surprises that had fewer than 20 data points and I also do not consider news surprises relating to central bank policy rate announcements, because I construct my own high-frequency measures for such announcements.

[13] I use the following stock indexes: ASX200 (AUS), TSX Composite (CAN), SMI (CHE), Euro Stoxx 50 (ECB), FTSE100 (GBR), TOPIX (JPN), OBX (NOR), NZX50 (NZL), and OMX Stockholm 30 (SWE). I measure exchange rates relative to the United States except for the United States, which I measure relative to Canada. I measure oil prices using West Texas Intermediate prices.

[14] I take a similar approach as described in Cotton (2026). I consider the mean of all available forecasts for a country/zone. Unemployment forecasts are not available for Norway, Sweden, or Switzerland. Forecasts are typically available for the current year and subsequent year. I measure the change in the current year when a surprise takes place in January to June and the change in the subsequent year when a surprise takes place in July to December. I exclude a large increase in the unemployment forecast from September to October 2014 for the United Kingdom, which is by far the largest unemployment forecast change outside of the COVID-19 period.

work.[15]

I start by plotting the monetary policy surprises for each country/zone in the sample in Figure 1a.[16] Each shaded area represents the monetary policy surprises associated with a country/zone. I sum the monetary policy surprises within each country/zone over a five-month rolling window. I plot the total of the rolling sums of the monetary policy surprises across all nine countries/zones in the black line. This plot is meant to capture overall patterns, but I also plot the monetary policy surprises for each country/zone individually in one-month and five-month windows in Figures B.1 and B.2.

The figure demonstrates that monetary policy surprises comove with each other. The two periods when total monetary policy surprises across the sample were at their most negative in the early- and late-2000s were driven by many countries/zones experiencing negative monetary policy surprises at the same time. Similar patterns can be seen for the three periods when total monetary policy surprises were at their most positive in the early-2000s and late-2020s. In each of these periods, we see that many countries/zones experienced large positive monetary policy surprises.

This comovement is surprising for two reasons. First, under the traditional interpretation of monetary policy surprises as monetary policy shocks, we might think that monetary policy shocks would be primarily driven by domestic factors, such as the makeup of the central bank committee, which should not correlate across central banks. Second, even if central banks in different countries/zones respond similarly to global shocks, central bank announcements take place at different times. If there has been a positive monetary policy surprise in one country/zone, markets would be expected to update their expectations for future central bank announcements in other countries/zones accordingly. In that case, subsequent announcements should not also be surprising.

The large movements in monetary policy surprises also appear to comove with global interest rates. In Figure 1b, I plot the average of the rolling sums of the monetary policy surprises across all countries/zones from Figure 1a in black. The average generally equals the Total from Figure 1b divided by nine.[17] I plot in light blue the change in the policy rate in a five-month moving window averaged across the countries/zones in the sample. The scale is shown on the right-hand side and is ten times greater than the scale for the monetary policy surprises. Average monetary policy surprises and average changes in policy rates move closely together.[18]

To highlight this relationship, I plot tightening and easing periods with shaded bars. I plot tightening

[15]This co-movement relates to the Global Financial Cycle documented by Rey (2016) and others (Kalemli-Özcan, 2020; Miranda-Agrippino and Rey, 2020, 2022), though prior work has focused on how monetary policy drives global cycles rather than how cycles predict policy surprises.

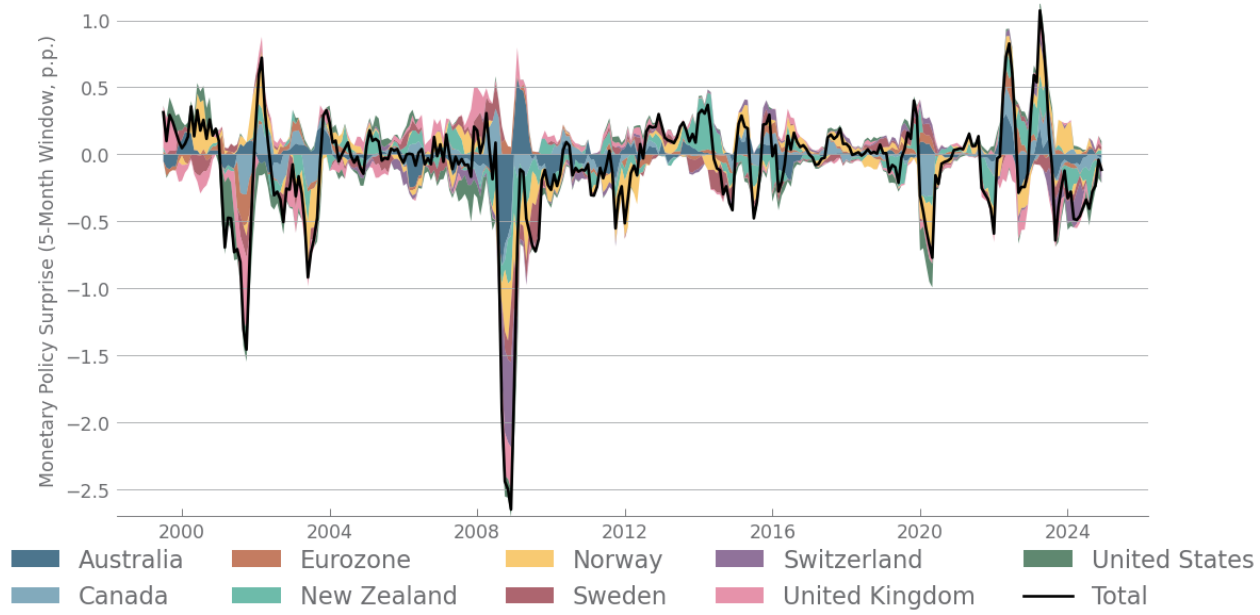
[16]I plot this for July 1999 to December 2024, because as Table 1 demonstrates, monetary policy surprises can be constructed for fewer countries/zones before 1999. I show results for the full sample period in Figure B.3, which yields similar results.

[17]The average equals the total divided by the number of central banks in a given month for which the five-month rolling sum window is non-empty. The denominator is mostly nine, except in the early part of the sample where monetary policy surprises are not defined for some countries/zones.

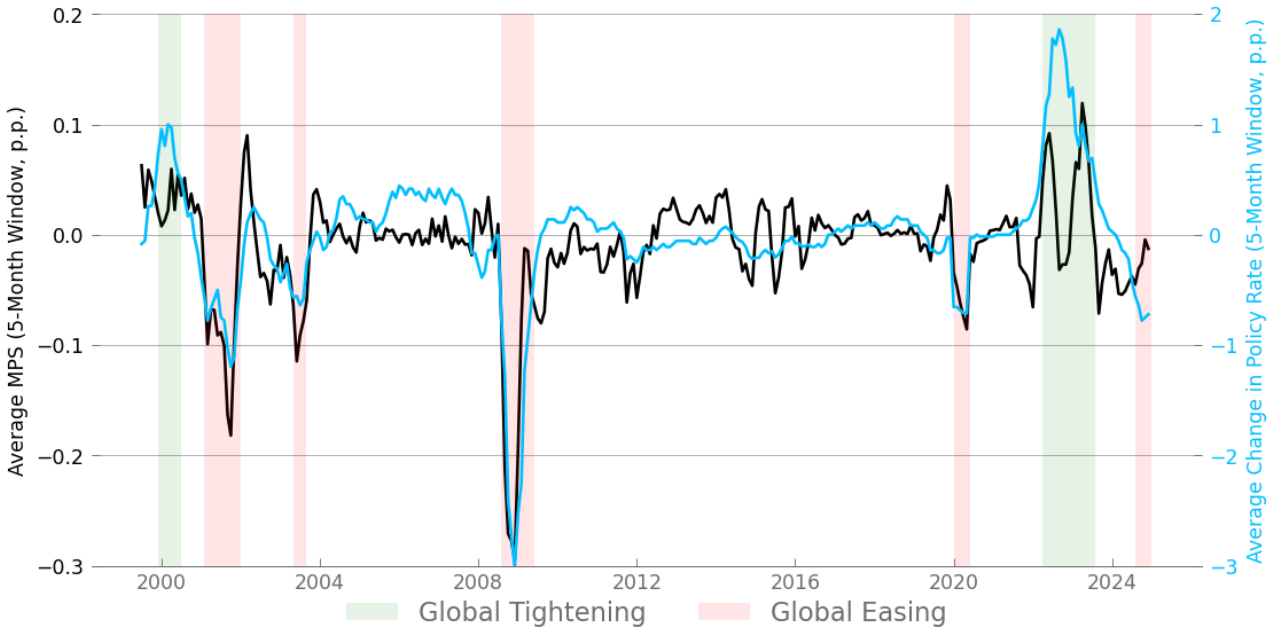
[18]Figure B.4, Figure B.5, and Figure B.6 show that the results are similar without applying a moving average, when the monetary policy surprises are measured using a strict 30-minute window, and when the monetary policy surprises are measured using the Nelson–Siegel approach, respectively.

Figure 1: Monetary Policy Surprise Comovement and Relationship to Global Interest Rate Cycle

(a) Monetary Policy Surprise Comovement



(b) Average Monetary Policy Surprises and the Global Interest Rate Cycle



Notes: In the top subfigure, each shaded area represents the sum of the monetary policy surprises in centered five-month rolling windows for a single country/zone. The total line represents the total of the rolling sums of the monetary policy surprises across all countries/zones. In the bottom subfigure, the black line represents the mean of the rolling sums of the monetary policy surprises across all countries/zones (left axis). The blue line represents the change in the policy rate in a centered five-month rolling window averaged across the countries/zones in the sample (right axis). The green (red) bars indicate that the average change in the policy rate across all countries/zones in the sample in a five-month moving window was more than 50 (less than –50) basis points. The figures consider the July 1997 to December 2024 period. Sources: Bloomberg, CME, and Refinitiv.

Table 2: Monetary Policy Surprises during Tightening and Easing Cycles

Description	Start Month	End Month	$\Delta\overline{PolicyRate}$	$\overline{MPS}$ (Default)	$\overline{MPS}$ (2-Day)
Dot-Com Bubble	1999.12	2000.06	1.17	0.05	0.11
Dot-Com Bust	2001.02	2001.12	-1.86	-0.24	-0.29
Mid-2003 Easing	2003.05	2003.08	-0.56	-0.08	-0.08
Great Recession	2008.08	2009.05	-3.64	-0.28	-0.63
COVID-19 Easing	2020.01	2020.05	-0.68	-0.06	-0.31
Post-COVID Tightening	2022.04	2023.07	3.94	0.17	0.45
Post-Pandemic Easing	2024.08	2024.12	-0.78	-0.03	-0.07

Notes: The fourth column is the average change in the policy rate for the countries/zones in the sample from one month before the start month to the end month. To construct the fifth column, I take the sum of the monetary policy surprises that occured from the start month to the end month for all events and all countries/zones in the sample and divide this number by the number of countries/zones for which I observe monetary policy surprises during that period. I construct the sixth column similarly to how I construct the fifth column, except that I measure monetary policy surprises in a two-day window. Sources: Bloomberg, CME, Refinitiv.

periods (that is, when policy rates are rising across developed countries/zones) in green and easing periods (that is, when policy rates are falling across developed countries/zones) in red. I define a tightening (easing) period to be when policy rates in the countries/zones in the sample rose, on average, by more (less) than 50 basis points (two quarter points) in a five-month moving window.[19] During the five easing periods, when global interest rates were falling, monetary policy surprises were negative. During the two tightening periods, when global interest rates were rising, monetary policy surprises were positive. Other periods generally show smaller monetary policy surprises.

Most of the easings and tightenings are familiar. Central banks tightened policy during the dot-com bubble and eased it during the dot-com bust. Central banks eased policy during the Great Recession and the onset of the COVID-19 pandemic. Central banks tightened policy during the burst of inflation following the reopening after the pandemic and then eased it at the end of 2024. The other period of easing occurred in 2003, when several central banks cut interest rates in anticipation of a recession that did not arise.

To quantify the economic magnitude of this co-movement, I summarize the easing and tightening cycles in Table 2. The second and third columns show the start and end dates associated with these cycles. The fourth column shows the average change in the policy rate of developed countries/zones from the beginning to the end of the cycle. In the fifth column, I compute the sum of the baseline monetary policy surprises during that cycle averaged across each country/zone. I do the same in the sixth column, except I compute this with monetary policy surprises measured in a two-day window.

The degree to which monetary policy surprises vary with the global interest rate cycle is sizable. Across the easing cycles associated with the dot-com bust and the Great Recession, I find that the sum of the monetary policy surprises at each of the central banks in the sample was, on average,

[19] By this definition, there were two easing periods in 2001 (February to May and July to December), but both were associated with the dot-com bust, so I combine them. The last easing was still ongoing as of the end of 2024, when my data set ends.

Table 3: Correlation between Monthly Monetary Policy Surprises and Global Cycle Measures

	$\overline{MPS}_m$	$\Delta\overline{PolicyRate}_m$	$\Delta\overline{\log(Stock_m)}$	$\Delta\log(Oil_m)$	$\Delta\log(Gold_m)$
$\overline{MPS}_m$	1.0				
$\Delta\overline{PolicyRate}_m$	0.45	1.0			
$\Delta\overline{\log(Stock_m)}$	0.07	0.18	1.0		
$\Delta\log(Oil_m)$	0.2	0.25	0.36	1.0	
$\Delta\log(Gold_m)$	-0.03	0.01	0.01	0.11	1.0

Notes: For monetary policy surprises, I measure the mean monetary policy surprises across all central bank announcements in that month. For other variables, I measure the change from the end of the preceding month to the end of the current month. For stock prices, I compute the change in the log price of the benchmark stock index for each country/zone in my sample and then take the mean. Sources: Bloomberg, CME, Haver, and Refinitiv.

–0.24 and –0.28 percentage points, respectively. In other words, during those cycles, the central bank of each developed country/zone generated monetary policy surprises that, on average, equated approximately to a surprise one-quarter-point cut. Similarly, during the post–COVID-19 tightening cycle, each developed country's/zone's central bank generated monetary policy surprises that, on average, equated approximately to a surprise one-quarter-point rise. If the monetary policy surprises are measured using a wider two-day window, the effects are even stronger. The tightenings and easings associated with the dot-com bust, the COVID-19 easing, and the post–COVID-19 tightening were equivalent to more than a quarter-point change at each central bank. The easing associated with the Great Recession was equivalent to more than two quarter-point cuts.[20]

Other measures of global cycles demonstrate less co-movement. I show the monthly correlation between average monetary policy surprises, the average change in policy rates, and the average change in the log price of stocks, oil, and gold in Table 3.[21] The first column shows the correlation between average monetary policy surprises and measures of the global cycle. Monetary policy surprises show some correlation with changes in the prices of global stocks and oil, but they have the strongest correlation with the global interest rate cycle.

4 Predicting Monetary Policy Surprises

In Section 3, I demonstrate that there is significant correlation between the change in global interest rates and monetary policy surprises. This section moves beyond correlations to investigate which variables best predict monetary policy surprises. It establishes my second main contribution: I show that changes in global short-term interest rates are the strongest predictor of monetary policy surprises. I first establish the baseline predictive relationship and identify optimal measurement

[20] One explanation for the larger effects in the two-day window is that it takes time for markets to process central bank announcements. Another explanation is that other events take place within the two-day window that correlate with the tightening/easing cycle. I take the conservative approach and use a narrower time frame by default in later sections.

[21] I measure the average change in the log price of stocks by first computing the log change in the benchmark stock index for each country/zone in my sample. I then compute the mean across countries/zones.

windows (Section 4.1). Next, I conduct a horse race comparing global interest rates against alternative predictors proposed in the literature, including asset prices and news surprises (Section 4.2). I then demonstrate that the predictive power of global rates holds across all nine countries/zones in my sample (Section 4.3), and I verify robustness across multiple specifications and time periods (Section 4.4).

Unlike in the previous section, where I average by month, for the rest of the paper, each point in the data covers a central bank announcement in country/zone z on day t.[22] I consider predictive regressions of the form given in Equation (1). I predict a monetary policy surprise in country/zone z on day t, $MPS_{z,t}$ using public signals that took place before day t and that are denoted by $Z_{z,t-\delta}$, where $\delta > 0$.[23] I mostly consider pooled regressions in which I regress the monetary policy surprise for every country/zone in my sample on the change in economic conditions before the announcement associated with that surprise. However, I also show analysis breaking out the impact by country/zone.

$$MPS_{z,t} = \alpha + \beta Z_{z,t-\delta} + u_{z,t}. \tag{1}$$

4.1 Establishing a Predictive Relationship

I start by examining the relationship between the change in global interest rates before a central bank announcement and the monetary policy surprise resulting from that announcement. I denote the change in the short-term interest rate for country z from x days before the central bank announcement to y days before the announcement by $\Delta_{t-x,t-y}I_{st,z}$.[24] I denote the change in the global short-term interest rate from x days to y days before the announcement by $\Delta_{t-x,t-y}\bar{I}_{st}$. I compute this by taking the average of $\Delta_{t-x,t-y}I_{st,z}$ across all the countries/zones in my sample.

I begin by investigating the predictability of global interest rates measured in different windows before monetary policy surprises in Table 4. In regressions (1) through (4), I regress the surprise resulting from a central bank announcement on the change in the global interest rate beforehand. I consider the change in the global interest rate from seven days to one day before, 15 days to one day before, 30 days to one day before, and 90 days to one day before, respectively. The results are all significant at the 0.1 percent level. The highest R^2 is for the second regression, that is, the 15-days-to-one-day measure. This regression suggests that a 1 percentage point increase in the global interest

[22] The data set is therefore indexed by country/zone z and day t. A point is only included in the data set if a monetary policy announcement took place in that country/zone on that day.

[23] I consider both domestic public signals, where the z subscript for $Z_{z,t}$ is needed, and global public signals, where it is not.

[24] I measure the change in the short-term interest rate before the central bank announcement as the average change in bonds and swaps with a maturity up to one year. Note that I consider an alternative approach where I use the change in the six-month interest rate from a Nelson-Siegel yield curve in Section 4.4, which yields similar results. Also note that an alternative is to measure the change in interest rates before an announcement with policy rates. I consider this in Table 6, but find that market rates (from bonds and swaps) offer better predictability.

Table 4: Investigating Predictability: Window for the Measurement of the Global Interest Rate

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)
Intercept	-0.003*	-0.003*	-0.003*	-0.003*	-0.003*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$\Delta_{t-7d,t-1d}\bar{I}_{st}$	0.172***				0.108**
	(0.040)				(0.034)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$		0.121***			
		(0.026)			
$\Delta_{t-30d,t-1d}\bar{I}_{st}$			0.061***		
			(0.013)		
$\Delta_{t-90d,t-1d}\bar{I}_{st}$				0.026***	
				(0.007)	
$\Delta_{t-15d,t-7d}\bar{I}_{st}$					0.105*
					(0.049)
$\Delta_{t-30d,t-15d}\bar{I}_{st}$					-0.007
					(0.018)
$\Delta_{t-90d,t-30d}\bar{I}_{st}$					0.018^{+}
					(0.011)
N	1764	1764	1764	1764	1764
R^2	0.020	0.032	0.025	0.027	0.037
R^2_{adj}	0.020	0.031	0.025	0.027	0.035

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

rate from 15 days to one day before the central bank announcement is associated with a 12.1 basis point increase in the monetary policy surprise resulting from that announcement.

In regression (5), I decompose the change from 90 days to one day before the central bank announcement into four separate windows, from 90 days to 30 days, 30 days to 15 days, 15 days to seven days, and seven days to one day before the announcement. I find that the two later windows covering 15 days to one day before the announcement are significant at least at the 5 percent level, with relatively large coefficients. On the other hand, I find that the two earlier windows are significant at most at the 10 percent level, with smaller coefficients. Therefore, I focus on the predictive power of the change in global interest rates from 15 days to one day before a central bank announcement. As I demonstrate in Section 4.2, this measure of global interest rates outperforms competing predictors including asset prices and news surprises.

The convention in the monetary policy surprise literature has been to consider narrow windows, following Gürkaynak, Sack, and Swanson (2005). Other, more recent papers suggest wider windows to allow more time for markets to process the information around central bank announcements and to capture press conferences (Altavilla et al., 2019; Acosta et al., 2025). In Table 5, I consider how changing the window of the monetary policy surprise (that is, the dependent variable) affects the

Table 5: Investigating Predictability: Monetary Policy Surprise Window

$MPS_{z,t}$	30-min	2-hour narrow	2-hour	4-hour	1-day	2-day
Intercept	-0.004**	-0.003*	-0.003*	-0.003*	-0.005**	-0.005**
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.114***	0.121***	0.124***	0.126***	0.140***	0.228***
	(0.028)	(0.026)	(0.029)	(0.035)	(0.026)	(0.040)
N	1403	1764	1763	1807	1774	1753
R^2	0.027	0.032	0.028	0.026	0.037	0.055
R^2_{adj}	0.027	0.031	0.028	0.026	0.036	0.054

Notes: $^+$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

results. In regressions (1), (3), (4), (5), and (6), I consider 30-minute, two-hour, four-hour, one-day, and two-day windows, respectively.[25] In regression (2), I consider the default measure, which is a narrow two-hour measure whereby I effectively consider points in the 30-minute window when they are available and points in the two-hour window otherwise. Each regression suggests a positive relationship that is significant at the 0.1 percent level. Up to a one-day window, the results suggest that a 1 percentage point increase in the global interest rate from 15 days to one day before the central bank announcement is associated with an increase of 11 to 14 basis points in the monetary policy surprise resulting from that announcement. The results for a two-day window are stronger, suggesting a 23 basis point rise. The results grow slightly with the window, which suggests that the degree of predictability may be higher for longer windows, as markets have more time to process the monetary policy announcement. However, measuring the monetary policy surprise in a longer window is likely to induce more noise in the measurement of monetary policy surprises because it gives more time for unrelated events that also affect interest rates to occur. This can be observed in the two-day regression, which has the highest standard error. I focus on the two-hour narrow window to reduce potential noise. However, in Sections 4.2 and 4.3, I also report my primary results for two-day windows, which are similar.

In Table 6, I investigate the predictability of different interest rate measures. In regression (1), I report the baseline measure, which is the same as regression (2) in Table 4. In regression (2), I include the recent change in medium-term interest rates as well as the recent change in short-term interest rates.[26] The recent change in the short-term global interest rate becomes more positive, while the

[25]The 30-minute window compares the earliest trades from 10 minutes to just before a central bank announcement with the latest trades from 10 minutes to 20 minutes after the announcement. The two-hour window compares the trades from one hour to just before an announcement with the latest trades from 10 minutes to one hour after the announcement. The four-hour window compares the trades from two hours to just before an announcement with the latest trades from 10 minutes to two hours after the announcement. The one-day window compares the trades at the close of business the business day before a central bank announcement with the trades at the close of business the day of the announcement (or the next business day in the unusual case that an announcement does not take place on a business day). The two-day window compares the trades at the close of business the business day before an announcement with the trades at the close of business the day after an announcement.

[26]I measure the change in the medium-term interest rate as the average change in interest rates for instruments with a

Table 6: Investigating Predictability: Interest Rate Measures

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Intercept	-0.003*	-0.003*	-0.003*	-0.003*	-0.003*	-0.003*	-0.004*	-0.003*	-0.003**
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.121***	0.224***		0.231***					0.220***
	(0.026)	(0.035)		(0.035)					(0.041)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$		-0.089***		-0.097***	0.040				-0.078**
		(0.025)		(0.026)	(0.025)				(0.024)
$\Delta_{t-15d,t-1d}(I_{st,z}-\bar{I}_{st})$			0.059*	0.065*					0.070**
			(0.026)	(0.026)					(0.026)
$\Delta_{t-15d,t-1d}(I_{mt,z}-\bar{I}_{mt})$			0.020	0.009	0.051*				0.014
			(0.023)	(0.023)	(0.021)				(0.025)
$\Delta_{t-15d,t-1d}I_{st,USA}$						0.036			-0.031
						(0.024)			(0.022)
$\overline{MPS}^{Prior15Days}$							0.136**		0.021
							(0.052)		(0.068)
$\Delta_{t-15d,t-1d}\overline{PolicyRate}$								0.113**	0.046
								(0.041)	(0.043)
N	1764	1764	1662	1662	1755	1759	1581	1764	1486
R^2	0.032	0.042	0.015	0.055	0.014	0.007	0.008	0.024	0.071
R^2_{adj}	0.031	0.041	0.014	0.053	0.013	0.006	0.008	0.023	0.066

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

medium-term global interest rate is significantly negative. This result suggests that if medium-term interest rates have also moved in the same direction as short-term rates in the preceding 15 days, then the predictability of short-term rates is weaker. One explanation for this finding is that interest rates of different maturities tend to move together due to the portfolio rebalancing channel (Vayanos and Vila, 2021). Short-term rate movements that result from news related to longer-term rates are likely to convey less information and provide less predictability for monetary policy surprises than movements from news related to short-term rates. The adjusted R^2 rises to 4.0 percent.

Recent changes in domestic interest rates also offer some predictability. In regression (3), I consider the change in domestic interest rates from 15 days to one day before the central bank announcement. I measure these relative to the change in the global interest rate so that I consider domestic rate changes not captured by global rate changes.[27] A 1 percentage point rise in short-term domestic interest rates relative to global rates predicts a 5.9 basis point higher monetary policy surprise and is significant at the 5 percent level. Therefore, domestic rates offer some additional predictive power beyond global

maturity of one to three years.

[27] If the monetary policy surprise is regressed on $\Delta_{t-15d,t-1d}\bar{I}_{st}$ and $\Delta_{t-15d,t-1d}I_{st,z}$, then the global interest rate would show the 1 percentage point rise in the developed country's/zone's rates, holding constant the domestic interest rate. This is not ideal because a movement in the global interest rate cycle would also be expected to affect the domestic interest rate. Instead, the monetary policy surprise is regressed on $\Delta_{t-15d,t-1d}\bar{I}_{st,Dev}$ and $\Delta_{t-15d,t-1d}I_{st,z}-\Delta_{t-15d,t-1d}\bar{I}_{st}$. In this case, $\Delta_{t-15d,t-1d}\bar{I}_{st}$ captures the impact of a recent rise in global interest rates that also raises domestic interest rates, while $\Delta_{t-15d,t-1d}I_{st,z}-\Delta_{t-15d,t-1d}\bar{I}_{st}$ captures the impact of a recent rise in domestic interest rates relative to global interest rates.

rates. In regression (4), I consider the global and domestic rates together. The coefficients remain similar, while the adjusted R^2 rises to 5.3 percent.

I consider other potential interest rate measures. In regression (5), I consider only the change in medium-term interest rates, which yields an adjusted R^2 of 1.3 percent. The lower R^2 is not surprising, since changes in short-term rates seem more likely to predict monetary policy surprises. It has been shown that the United States drives global cycles (Rey, 2016; Kalemli-Özcan, 2020; Miranda-Agrippino and Rey, 2020). Therefore, one reasonable conclusion is that changes in US domestic interest rates may predict monetary policy surprises and stand in for the change in global rates. In regression (6), I consider the change in US six-month interest rates from 15 days to one day before the central bank announcement. This variable is positive but not significant. Therefore, US rates alone do not significantly predict monetary policy surprises, suggesting the predictability stems from broader global, rather than US-specific, factors.

In regression (7), I consider how well the monetary policy surprise resulting from a central bank announcement is predicted by all monetary policy surprises across the countries/zones in my sample in the prior 15 days.[28] I find that a 1 percentage point increase in the mean monetary policy surprise over the prior 15 days predicts that a monetary policy surprise will be 13.6 basis points higher. This is significant at the 1 percent level, with an adjusted R^2 of 0.8 percent. In regression (8), I consider the predictive power of the change in policy rates across developed countries/zones. I find that a 1 percentage point rise in the change in policy rates is associated with a 11.3 basis point increase in the monetary policy surprise. This is significant at the 1 percent level, and the regression has an adjusted R^2 of 2.3 percent. One concern is that there may be only a few monetary policy events in the preceding 15 days, which could indicate that the mean recent monetary policy surprise and mean policy rate change in regressions (7) and (8) are quite noisy. In Table C.1, I obtain similar results for regressions (7), (8), and (9) when I instead consider the 30-day change in these variables.

In regression (9), I consider all interest rate measures together. The coefficients for the short-term global and domestic interest rates remain very similar to those from regressions (2) and (4). By contrast, the coefficients for the sum of monetary policy surprises and the recent change in policy rates become insignificant. This suggests that short-term global and domestic interest rates are stronger predictors than the sum of monetary policy surprises and the change in policy rates. A couple of factors may explain this finding. First, short-term interest rates, which I measure as the average interest rate for maturities up to one year, reflect the latest information about expected rates in upcoming months, whereas policy rates may evolve more slowly. For example, a central bank may signal a rate cut in advance, in which case short-term rates will change while policy rates will change only when the rate cut is made. Second, policy rates change in discrete intervals (typically quarters of a percentage point), which make them a noisier measure. Therefore, I focus on the change in short-term global and domestic interest rates moving forward.

[28] To compute this, I find the sum of any monetary policy surprises for each central bank in the sample over the 15 days before the central bank announcement. I then take the mean across the countries/zones in my sample. I ignore any countries/zones for which I have no monetary policy surprises during that period.

4.2 What Are the Best Predictors of Monetary Policy Surprises?

Having established that global interest rates predict monetary policy surprises, I now investigate whether this predictability is stronger than alternative explanations proposed in the literature. Schmeling, Schrimpf, and Steffensen (2022) suggest that a decline in stock prices predicts a monetary policy surprise easing in line with the concept of a "Fed put" (Cieslak and Vissing-Jorgensen, 2021). In other words, central banks ease policy by more than markets expect in response to falling stock prices. Bauer and Swanson (2023a) argue that economic news in the days before a central bank announcement predicts surprises around that announcement, suggesting that markets underestimate the degree to which central banks respond to economic news.[29] In this section, I explore which of these sets of variables—interest rate changes, declines in stock prices, or economic news—best predicts monetary policy surprises.

Table 7 compares the predictability of the different sets of variables. In this regression, I standardize the regressors and the monetary policy surprise by subtracting the mean and dividing by the standard deviation. This allows for easier comparison of the strength of the different explanations. I show the results in non-standardized format in Table C.2. In regression (1) and (2), I consider the predictive impact of the change in global interest rates and the change in domestic rates relative to global rates, corresponding to regressions (2) and (3) in Table 6. I find that a 1 standard deviation increase in global rates over the 15 days before a central bank announcement is associated with a 0.33 standard deviation increase in the surprise resulting from that announcement, and this is significant at the 0.1 percent level. Domestic (relative to global) rates also have a significant impact but to a lesser degree. I find that global interest rates have an adjusted R^2 of 4.0 percent, while domestic interest rates have an adjusted R^2 of 1.3 percent.

In regression (3), I control for asset price measures. In line with Schmeling, Schrimpf, and Steffensen (2022), I consider the change in these prices over the 30 days before the central bank announcement. I control for the change in global stock prices, domestic (relative to global) stock prices, exchange rates, the CBOE Volatility Index (VIX), gold prices, and oil prices.[30] As global/domestic stock prices and the domestic exchange rate worsen or volatility rises, monetary policy surprises are more likely to be negative, which aligns with central banks cutting more than markets expect. A rise in gold prices is associated with negative surprises, which aligns with gold's safe-haven properties. The change in exchange rates is the only significant variable, and the adjusted R^2 is 0.5 percent.[31]

[29] Schmeling, Schrimpf, and Steffensen (2022) and Bauer and Swanson (2023a) consider other factors but focus on these explanations.

[30] The VIX shows significant volatility and is often reported as a moving average. I take the 7-day non-centered moving average of the VIX before computing the recent change in the VIX.

[31] In Table 7, I do not find that either global or domestic stock prices offer predictive power. Schmeling, Schrimpf, and Steffensen (2022) find that domestic stock prices have predictive power. However, they consider month-long excess returns in interest rates rather than the narrow window around central bank announcements, and I also control for other asset price changes. When I consider the change in asset prices over the preceding 90 days in Table C.3, following Bauer and Swanson (2023a), I do find that global stock prices are significant at the 5 percent level. In that case, the adjusted R^2 rises a little to 1.1 percent, which is still lower than the predictive power of global or domestic interest rates.

Table 7: Comparing the Predictability of Different Sets of Variables

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Intercept	0.000	-0.001	0.001	-0.001	-0.002	-0.002	0.000	-0.002	-0.001	-0.003
	(0.023)	(0.028)	(0.026)	(0.026)	(0.026)	(0.025)	(0.027)	(0.023)	(0.025)	(0.025)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.329***					0.316***		0.291***	0.318***	0.340***
	(0.052)					(0.054)		(0.047)	(0.048)	(0.056)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$	-0.182***					-0.156**		-0.132*	-0.177**	-0.180**
	(0.051)					(0.057)		(0.054)	(0.055)	(0.055)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$		0.097*				0.128**	0.117*		0.124**	0.108*
		(0.044)				(0.047)	(0.047)		(0.047)	(0.043)
$\Delta_{t-15d,t-1d}(I_{mt,z} - \bar{I}_{mt})$		0.034				0.017	0.025		0.028	0.008
		(0.039)				(0.043)	(0.045)		(0.043)	(0.038)
$\Delta_{t-30d,t-1d}\overline{\log(Stock)}$			-0.023			-0.064	-0.039	-0.037		-0.069^{+}
			(0.043)			(0.043)	(0.045)	(0.039)		(0.039)
$\Delta_{t-30d,t-1d}(\log(Stock_z) - \overline{\log(Stock)})$			0.001			0.011	0.005	0.017		0.002
			(0.030)			(0.031)	(0.030)	(0.031)		(0.029)
$\Delta_{t-30d,t-1d}\log(ExchangeRate_z)$			0.074**			0.050	0.064*	0.082**		0.037
			(0.026)			(0.032)	(0.032)	(0.029)		(0.029)
$\Delta_{t-30d,t-1d}VIX$			-0.050			-0.036	-0.059	-0.015		-0.039
			(0.069)			(0.042)	(0.063)	(0.040)		(0.039)
$\Delta_{t-30d,t-1d}\log(GoldPrice)$			-0.044			0.010	-0.016	-0.013		0.008
			(0.034)			(0.032)	(0.030)	(0.030)		(0.032)
$\Delta_{t-30d,t-1d}\log(OilPrice)$			-0.004			-0.038	-0.020	-0.043		-0.026
			(0.038)			(0.030)	(0.035)	(0.028)		(0.028)
$\sum_{k=1}^{30} UnemploymentRateNewsSurprise_{USA,t-k}$				-0.017						
				(0.028)						
$\sum_{k=1}^{30} PPIFinalDemandMoMNewsSurprise_{USA,t-k}$				0.012						
				(0.029)						
$\sum_{k=1}^{30} Conf.BoardConsumerConfidenceNewsSurprise_{USA,t-k}$				0.037						
				(0.037)						
$\sum_{k=1}^{30} RetailSalesAdvanceMoMNewsSurprise_{USA,t-k}$				0.004						
				(0.024)						
$\sum_{k=1}^{30} U.ofMich.SentimentNewsSurprise_{USA,t-k}$				-0.025						
				(0.032)						
$\sum_{k=1}^{30} ISMManufacturingNewsSurprise_{USA,t-k}$				0.067*						
				(0.029)						
$\sum_{k=1}^{30} CPIYoYNewsSurprise_{USA,t-k}$				0.070						
				(0.046)						
$\sum_{k=1}^{30} GDPAnnualizedQoQNewsSurprise_{USA,t-k}$				-0.018						
				(0.023)						
$\sum_{k=1}^{30} CPIMoMNewsSurprise_{USA,t-k}$				-0.055						
				(0.043)						
$\sum_{k=1}^{30} InitialJoblessClaimsNewsSurprise_{USA,t-k}$				-0.023						
				(0.025)						
$\sum_{k=1}^{30} ChangeinNonfarmPayrollsNewsSurprise_{USA,t-k}$				0.036						
				(0.027)						
N	1764	1662	1763	1764	1764	1661	1661	1763	1662	1661
R^2	0.042	0.015	0.008	0.012	0.104	0.156	0.127	0.140	0.152	0.058
R^2_{adj}	0.041	0.014	0.005	0.006	0.003	0.049	0.017	0.039	0.048	0.053
All Local News by Zone					*	*	*	*	*	
All USA News by Zone					*	*	*	*	*	
Number of Regressors	2	2	6	11	178	188	186	186	182	10

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. The dependent and independent variables are standardized by subtracting the mean and dividing by the standard deviation by variable. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

In regression (4), I consider the explanatory power of US economic news surprises. On release days, the news surprise is measured as the actual release minus the forecast (see Section 2 for more details). When there is no release, the surprise for that day is set to zero. Following Bauer and Swanson (2023a), I look at the sum of each news surprise from 30 days to one day before the monetary policy surprise. For monthly variables, there is typically one release during the preceding 30 days, but occasionally, depending on the dates of news releases, there are two or zero. For weekly variables, such as US nonfarm payrolls, there are multiple releases. I first consider news surprises for the United States on the basis that US news has been shown to be an important driver of the Global Financial Cycle (Boehm and Kroner, 2025). I include the 10 most relevant US macroeconomic news surprises (as defined by Bloomberg; see Section 2) plus the unemployment news surprise.[32] The Institute for Supply Management manufacturing index is significant at the 1 percent level, but other variables are not significant. I find an adjusted R^2 of 0.6 percent, suggesting that economic news has limited predictive power.

I find similar results when I allow for the differential effects of both domestic and US news. In regression (5), I regress monetary policy surprises on the 10 most relevant domestic macroeconomic news surprises plus the 11 US news surprises from regression (4) while allowing for each US news surprise to have a differential effect by country/zone.[33] In this case, I find an adjusted R^2 of 0.4 percent, suggesting that news surprises have less predictive power than global interest rates. I consider many other permutations of news surprises in Appendix C.2, including considering only news surprises for CPI, GDP, and unemployment, and considering domestic/US news surprises separately. I continue to find that news surprises have low adjusted R^2 and have at best limited predictive power for monetary policy surprises.

In regression (6), I combine all the possible explanations: global interest rates (regression (1)), domestic relative to global rates (regression (2)), asset prices (regression (3)), and local/US news by country/zone (regression (5)). The coefficients for domestic and global interest rates remain quite similar after the introduction of the additional controls, as does their statistical significance. On the other hand, asset prices cease to show significant effects. Regression (6) also indicates that when the explanations are considered together, a one standard deviation increase in short-term global interest rates has by far the largest impact on monetary policy surprises, raising the monetary policy surprise by 0.31 standard deviation. In regressions (7) through (10), I leave out one explanation relative to regression (6).[34] Leaving out global rates in regression (7) leads to the largest decline in adjusted

[32] Unemployment is the 13th most relevant variable for the United States. Therefore, there are 11 regressors in regression (4).

[33] For Switzerland, I include nine news surprises because I exclude retail sales, since that variable is available for fewer than 20 events. Therefore, I have 10 surprises for each country/zone except for Switzerland, for which I have nine, and the United States, for which I have 11 (due to the inclusion of unemployment), yielding a total of 90 domestic regressors. Then, for the eight non-US countries/zones, I consider the impact of the 11 US news surprises, allowing for a differential effect from each, and adding 88 additional regressors. Note that a non-US news surprise, such as the UK CPI news surprise, is included with an interaction term so that it is regressed only on that country's/zone's central bank announcements, for example, $\mathbb{1}_{UK} \sum_{k=1}^{30} CPINewsSurprise_{UK,t-k}$. On the other hand, a US news surprise, such as the US CPI news surprise, is included with interaction terms for every country/zone separately so that it can have a differential effect for each country/zone: $\sum_z \mathbb{1}_z \sum_{k=1}^{30} CPINewsSurprise_{US,t-k}$.

[34] Regressions (7) through (10) leave out global interest rates, domestic rates, asset prices, and economic news surprises,

R^2.[35]

Overall, the change in global interest rates has the strongest adjusted R^2 when the explanations are considered separately and the strongest impact when combined with other explanations. Moreover, excluding global rates leads to the largest decline in adjusted R^2. Therefore, I conclude that global interest rates are the strongest predictor of monetary policy surprises among the proposed explanations. I find very similar results for two-day monetary policy surprises in Tables C.4 and C.5.

4.3 Results by Country/Zone

Next, I examine how well global interest rates predict the monetary policy surprises of individual countries/zones in my sample. To do this, I interact the primary independent variable with indicator variables for the country/zone in which each central bank announcement occurs. Table 8 reports the results. In regression (1), I consider only the interest rate interactions plus zone dummies. The 0.098 coefficient for $\Delta_{t-15d,t-1d} I_{6m,Dev} * \mathbb{1}_{USA}$ indicates that a 1 percentage point rise in global interest rates in the 15 days before a central bank announcement in the United States is associated with a 9.8 basis point increase in the resulting monetary policy surprise. Note that for regression (1), this approach yields the same coefficient for each country/zone as I would obtain by running a regression of the monetary policy surprises only for that country/zone on the change in global rates in the preceding 15 days. Absent other controls, four of the nine coefficients indicate a significant relationship, and none is negative.

In regressions (2) through (4), I control for the other variables considered in Table 7. I add other interest rate controls, asset price controls, and all local/US news by country/zone one at a time, respectively, into the regressions. After adding these controls, I find a high degree of significance across all regressions. In regressions (2) and (3), eight of the nine coefficients are significant at the 10 percent level or higher. In regression (4), all the coefficients are significant, and in regressions (2) through (4), four of the coefficients are significant at the 0.1 percent level or higher. Again, I find that every coefficient is positive. Therefore, I conclude that recent changes in global interest rates appear to offer broad predictive power for the monetary policy surprises across the developed countries/zones in my sample.

I find very similar results for 30-minute and two-day monetary policy surprises in Tables C.6 and C.7. Other papers in the literature typically focus on predicting US monetary policy surprises. I show additional results with only US monetary policy surprises in Appendix C.3.

respectively.

[35] These results align with those in Kerssenfischer and Schmeling (2024), who explore the impact of news on stock prices and bond yields. In an application, they find that news releases from other global central banks predict changes in US and euro-zone two-year yields around central bank announcements in those countries/zones more, while domestic and foreign macroeconomic news releases have less predictive power.

Table 8: Impact of Global Interest Rates by Country/Zone

$MPS_{z,t}$	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{AUS}$	0.248	0.339	0.337^{+}	0.338^{+}
	(0.216)	(0.210)	(0.202)	(0.187)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{CAN}$	0.173***	0.267***	0.270***	0.221***
	(0.052)	(0.063)	(0.070)	(0.067)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{CHE}$	0.136	0.273**	0.274**	0.277***
	(0.095)	(0.096)	(0.097)	(0.076)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{ECB}$	0.049	0.115*	0.118*	0.103
	(0.048)	(0.054)	(0.058)	(0.064)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{GBR}$	0.039	0.164^{+}	0.166^{+}	0.144^{+}
	(0.080)	(0.087)	(0.086)	(0.076)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{NOR}$	0.160	0.261**	0.261**	0.314***
	(0.112)	(0.085)	(0.092)	(0.094)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{NZL}$	0.249**	0.353***	0.353***	0.324**
	(0.091)	(0.094)	(0.093)	(0.110)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{SWE}$	0.109*	0.211***	0.213***	0.185**
	(0.052)	(0.052)	(0.060)	(0.071)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{USA}$	0.098*	0.204***	0.208***	0.187**
	(0.043)	(0.050)	(0.056)	(0.058)
N	1764	1662	1661	1661
R^2	0.045	0.068	0.071	0.172
R^2_{adj}	0.036	0.057	0.057	0.056
Zone Dummies	*	*	*	*
Other Interest Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Zone dummies are dummy variables for each zone. Other interest rate controls correspond to the three interest rate controls added in regression (4) relative to regression (1) in Table 6. Asset price controls and all local/US news by zone refer to the controls added in regressions (3) and (5) in Table 7, respectively. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table 9: Robustness Checks

	(1)	(2)	(3)	(4)
A. Baseline	0.121***	0.231***	0.232***	0.216***
B. External MPS Measures	0.108***	0.158***	0.157***	0.146***
C. Including COVID-19 Pandemic	0.124***	0.225***	0.231***	0.219***
D. Removing Outliers	0.105**	0.221***	0.223***	0.215***
E. MPS with Nelson-Siegel	0.121***	0.206***	0.215***	0.205***
Intercept	*	*	*	*
Other Interest Rate Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Other interest rate controls correspond to the three additional interest rate controls added in regression (4) relative to regression (1) in Table 6. Asset price controls and all local/US news by zone refer to the controls added in regressions (3) and (5) in Table 7, respectively. Monetary policy surprises in 2020 are excluded by default. Sources: Bloomberg, CME, and Refinitiv.

4.4 Robustness Checks

In this section, I consider other robustness checks. I summarize several robustness checks in Table 9. In the table, I regress monetary policy surprises on my baseline measure of the change in global interest rates over the preceding 15 days. In regression (1), I control only for an intercept. In regressions (2) through (4), I add other controls. Row A gives the baseline results. In row B, I use an alternative monetary policy surprise measure constructed by combining measures for individual countries/zones published by other researchers.[36] By default, I do not include central bank announcements that took place in 2020 in my sample due to the risk that distortions from the COVID-19 pandemic would introduce large outliers. I introduce these announcements in Row C. In Row D, I exclude large outliers, which I measure as changes in global interest rates in the 15 days before a central bank announcement that exceed 50 basis points. By default, I construct monetary policy surprises by considering the average change in the interest rate for instruments with a maturity of up to one year. In Row E, I consider an alternative approach to measuring the monetary policy surprises. I fit a Nelson–Siegel yield curve before and after the central bank announcement and compute the monetary policy surprise as the change in the fitted yield curves at a six-month maturity. Each of these robustness checks yields results that are very similar to the baseline. A full regression table for each robustness check is provided in Appendix C.4.

[36]These are derived from six-month measures calculated in 30-minute windows around central bank announcements. The external measures are as follows: Australia (Hambur and Haque, 2023), Canada (Soosalu, 2024), the eurozone (Altavilla et al., 2019), New Zealand (Kirkby and Vu, 2024), Sweden (Almerud et al., 2024), the United Kingdom (Braun, Miranda-Agrippino, and Saha, 2024), and the United States (Acosta et al., 2025). Exceptions to the standard timeframe are measures for Australia from Hambur and Haque (2023), who use 2-hour windows around monetary policy announcements, and measures for New Zealand from Kirkby and Vu (2024), who use daily windows.

I consider how the relationship between global interest rates and monetary policy surprises evolves in narrow five-year windows in Table C.8. Regression (1) shows the baseline result for all years, while regressions (2) through (7) show the results for 1996 through 1999, 2000 through 2004, 2005 through 2009, 2010 through 2014, 2015 through 2019, and 2020 through 2024. All the coefficients are reasonably positive. Four of the six windows are significant. The two windows that are not significant are 1996 through 1999, for which I have fewer data points available, and 2020 through 2024, which contains the COVID-19 pandemic period. I present the baseline regression, corresponding to regression (2) in Table 4, as a scatter plot in Figure C.1.

5 Why Do Global Interest Rates Predict Monetary Policy Surprises?

This section establishes my third contribution: explaining why global interest rates predict monetary policy surprises despite financial markets' strong incentives to exploit such predictability. I investigate this puzzle by drawing on the framework in Sastry (2022), which distinguishes between two mechanisms that can generate predictable monetary policy surprises. First, markets may underestimate the degree to which central banks respond to public signals about economic fundamentals—the argument made by Bauer and Swanson (2023a). I call this Case 1. Second, markets may place too little faith in the precision of the public signal itself, an argument originated by Sastry (2022). I call this Case 2. I find strong evidence for the second mechanism. When global interest rates rise before an announcement, forecasters raise their expectations afterward, indicating they initially underweighted the public signal. Strikingly, domestic interest rates show no such pattern, suggesting markets have particular difficulty responding to global signals.

To distinguish between these cases empirically, I apply the test developed by Sastry (2022). The test exploits how the two mechanisms differ in their implications for forecast revisions following central bank announcements. This is captured through a four-period model.[37] At $T = 0$, markets (M) and the central bank both observe a public signal Z about economic fundamentals θ. The central bank also receives a private signal F. At $T = 1$, the central bank sets the interest rate $r = aF + bZ$ based on both signals. At $T = 2$, another public signal is released. At $T = 3$, economic outcomes Y are realized. Case 1 models markets as underestimating the central bank's response coefficient (b), while Case 2 models markets as underestimating the precision of the public signal. Both cases generate the positive correlation between public signals and monetary policy surprises documented in Section 4, so neither can be ruled out based on predictability alone.[38]

The two cases have different implications for how forecasts evolve after central bank announcements: Case 1 predicts forecast revisions will move opposite to the initial signal, while Case 2 predicts the forecast revisions move in the same direction. This forms the basis for the test.

The intuition is as follows: Under Case 1, when a positive public signal is followed by a larger-than-

[37] See Sastry (2022) for the full model and derivations.

[38] In both cases, $Cov(\Delta, Z) \geq 0$ where $\Delta = r - \mathbb{E}_{M,0}[r]$ is the monetary policy surprise.

Table 10: Applying Sastry (2022) to Examine Reasons for Predictability

$\Delta_{s(t),s(t)+1m} VarForecast_z$	CPI	GDP	Unemp.	CPI	GDP	Unemp	CPI	GDP	Unemp
$\Delta_{t-15d,t-1d} \bar{I}_{st}$	0.771***	0.623***	-0.419***	0.762***	0.609***	-0.409***	0.822***	0.444***	-0.392***
	(0.095)	(0.161)	(0.066)	(0.093)	(0.161)	(0.068)	(0.160)	(0.134)	(0.091)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$				0.034	0.057	-0.021	-0.026	-0.019	0.071
				(0.056)	(0.060)	(0.043)	(0.081)	(0.069)	(0.058)
N	1851	1851	1393	1821	1821	1364	1794	1794	1350
R^2	0.112	0.061	0.087	0.110	0.059	0.085	0.329	0.300	0.251
R^2_{adj}	0.112	0.061	0.086	0.109	0.058	0.084	0.251	0.217	0.174
Intercept	*	*	*	*	*	*	*	*	*
Other Interest Rate Controls							*	*	*
Asset Price Controls							*	*	*
All Local News by Zone							*	*	*
All USA News by Zone							*	*	*

Notes: $^+$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Other interest rate controls correspond to the interest rate controls in regression (5) in Table 6. Asset price controls and all local/US news by zone refer to the controls added in regressions (3) and (5) in Table 7, respectively. Sources: Bloomberg, CME, Consensus Economics, Informa Global Markets, and Refinitiv.

expected rate hike, markets attribute the surprise to a positive private signal from the central bank. This leads them to form overly optimistic expectations about economic outcomes, which are then revised downward as more public information arrives: $Cov(\mathbb{E}_{M,2}[Y] - \mathbb{E}_{M,1}[Y], Z) \leq 0$. Under Case 2, markets initially place too little weight on the public signal, forming overly pessimistic expectations that are revised upward as subsequent information confirms the signal: $Cov(\mathbb{E}_{M,2}[Y] - \mathbb{E}_{M,1}[Y], Z) \geq 0$.

I implement this test using forecast data from Consensus Economics. The change in economic forecasts from the survey after an announcement, $s(t)$, to the second survey after an announcement, $s(t) + 1m$, is regressed on the change in global interest rates before that announcement. Crucially, the change in global interest rates is measured entirely before the announcement, while the change in forecasts takes place entirely after it, ensuring that the test isolates how markets update their beliefs following the announcement.

Table 10 shows the results. The first three columns suggest that the change in global interest rates before central bank announcements is associated with improvements in economic forecasts after the announcement.[39] These coefficients are highly significant, with each having a significance of less than 0.1 percent. This suggests that global interest rates predict monetary policy surprises because markets place too little confidence in the signals conveyed by changes in global rates before central bank announcements (case 2).

By contrast, the results for the change in domestic interest rates before central bank announcements are statistically insignificant and small. The second set of three columns in Table 10 also includes the change in domestic interest rates. This was also shown to predict monetary policy surprises in Table 6.

[39]The unemployment coefficient is negative, which is akin to an improving economic forecast.

However, this variable has an insignificant impact on the future change in all the forecasts considered, suggesting that markets do not place too little confidence in domestic interest rate signals. Note that in Table 10, I control for the change in domestic interest rates relative to the change in global rates, $\Delta(I_{6m,z} - I_{6m,Dev})$, similarly to Section 4, but I obtain the same result if I control for the nonrelative change in domestic interest rates, $\Delta I_{6m,z}$, as I show in Table D.1.

Finally, in regressions (7) through (9), I introduce other interest rate controls, asset price controls, and local/US news surprises so that I have the same controls as those in regression (6) in Table 7. This yields very similar results for both global and domestic interest rates. These results again demonstrate that markets underreact to signals from global interest rates.

Understanding the precise mechanism behind markets' difficulty processing global signals is an important direction for future research. In Appendix D.2, I conduct exploratory tests of whether this difficulty stems from novelty (markets learning over time), complexity (cognitive load from multiple signals), or strategic interaction (coordination uncertainty). All three mechanisms have the expected signs, but statistical significance is limited, making the results inconclusive in discriminating between channels.

Before concluding, I address one other alternative mechanism for the underreaction. Central banks change policy rates in discrete amounts (typically quarter points). Financial markets may systematically price in most but not all of each discrete jump. In this case, an anticipated hike would be associated both with an increase in rates before the announcement but also with a positive monetary policy surprise.[40] However, while possible, this mechanical underreaction would manifest primarily through domestic interest rates predicting surprises, not global rates.

6 Conclusion

This paper shows that monetary policy surprise predictability has an international dimension. Monetary policy surprises comove strongly across countries, tracking the global interest rate cycle—during major cycles, each central bank generates surprises averaging a quarter point. Changes in global short-term interest rates outperform all competing predictors, including asset prices, news surprises, and domestic factors. This predictability arises because markets systematically underreact to global interest rate signals: when global rates rise before announcements, forecasters subsequently revise their expectations upward, revealing they initially underweighted global signals.

These results help explain why predictability has persisted despite market incentives to exploit it. While previous research has focused on US monetary policy in isolation, this paper establishes that the puzzle is also international. Markets appear to have particular difficulty processing signals from

[40] For example, if a central bank was expected to raise its policy rate by 25 basis points, short-term interest rates may rise by 20 basis points in anticipation of this. In this case, if the central bank then does raise its policy rate by 25 basis points, the monetary policy surprise would be positive (5 basis points).

central banks when monetary policy moves in coordination across countries. This difficulty helps explain why predictability has persisted: arbitraging away the patterns requires correctly processing information that markets systematically underweight. The findings have practical implications: monetary policy surprises widely used to identify policy shocks contain a predictable component reflecting international factors, not purely exogenous domestic shocks. These findings raise questions about how markets aggregate information across countries more broadly, and whether similar patterns of underreaction to global signals appear in other international markets.

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Appendices

A Section 2 Appendix (Data)

A.1 Economic Releases

[Please note that Table A.1 follows Appendix Table B2 in Cotton (2026).]

Table A.1: Summary of Economic Releases

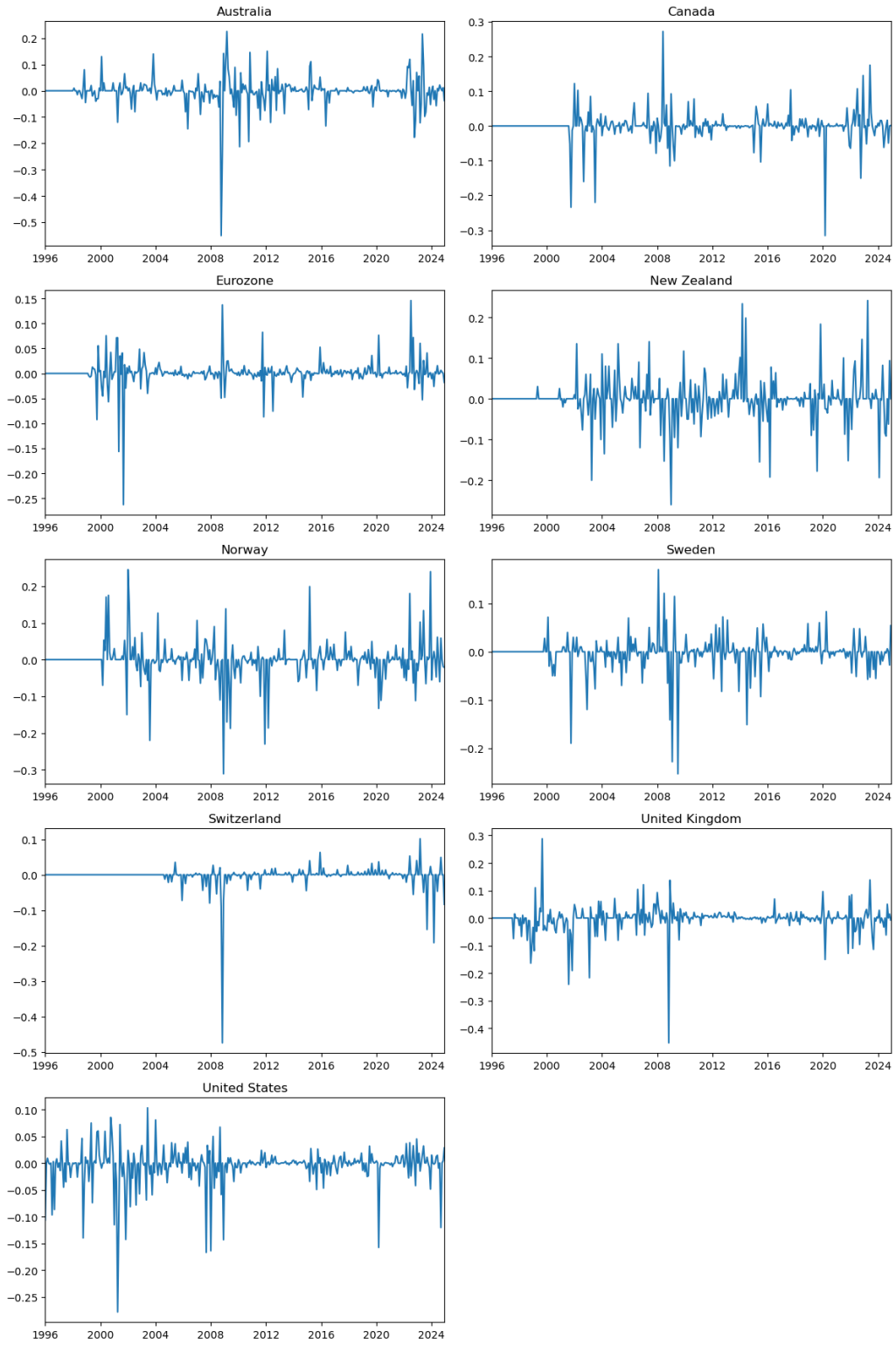
Zone	Event	Rank	CPI	GDP	Unemp	Divide by Var	Divide by Scalar
AUS	Unemployment Rate	1			y		
AUS	Employment Change	2				Australia: Employment (SA, Thous)	
AUS	GDP SA QoQ	3		y			
AUS	CPI YoY	4	y				
AUS	CPI QoQ	5					
AUS	Retail Sales MoM	6					
AUS	Building Approvals MoM	7					
AUS	GDP YoY	8					
AUS	Trade Balance	9				Australia: Gross Domestic Product (SA, Mil.A$)	
AUS	Participation Rate	10					
CAN	CPI YoY	1	y				
CAN	Unemployment Rate	2			y		
CAN	CPI NSA MoM	3					
CAN	Quarterly GDP Annualized	4		y			4
CAN	Net Change in Employment	5				Canada: Employment (SA, Thous)	
CAN	GDP MoM	6					
CAN	Housing Starts	7					
CAN	Retail Sales MoM	8					
CAN	GDP YoY	9					
CAN	Building Permits MoM	10					
CHE	CPI YoY	1	y				
CHE	CPI MoM	2					
CHE	PMI Manufacturing	3					
CHE	Unemployment Rate	4			y		
CHE	GDP QoQ	5		y			
CHE	GDP YoY	6					
CHE	Unemployment Rate SA	7					
CHE	Retail Sales Real YoY	8					
CHE	Producer & Import Prices MoM	9					
CHE	Producer & Import Prices YoY	10					
ECB	CPI YoY	1					
ECB	GDP SA QoQ	2		y			
ECB	GDP SA YoY	3					
ECB	CPI MoM	4					
ECB	CPI Estimate YoY	5	y				
ECB	CPI Core YoY	6					
ECB	Unemployment Rate	7			y		
ECB	Consumer Confidence	8					

ECB	ZEW Survey Expectations	9						
ECB	Industrial Production SA MoM	10						
GBR	CPI YoY	1	y					
GBR	CPI MoM	2						
GBR	GDP QoQ	3		y				
GBR	GDP YoY	4						
GBR	CPI Core YoY	5						
GBR	Jobless Claims Change	6				U.K.: LFS: Employment: Aged 16 and Over [3-Mo Moving Avg] (SA, Thous)		
GBR	Industrial Production MoM	7						
GBR	ILO Unemployment Rate 3Mths	8			y			
GBR	Manufacturing Production MoM	9						
GBR	Nationwide House PX MoM	10						
NOR	DNB/NIMA PMI Manufacturing	1						
NOR	CPI YoY	2	y					
NOR	CPI MoM	3						
NOR	Industrial Production MoM	4						
NOR	Unemployment Rate	5			y			
NOR	CPI Underlying YoY	6						
NOR	Unemployment Rate AKU	7						
NOR	GDP QoQ	8						
NOR	CPI Underlying MoM	9						
NOR	GDP Mainland QoQ	10		y				
NZL	CPI QoQ	1	y					
NZL	GDP SA QoQ	2		y				
NZL	Unemployment Rate	3			y			
NZL	Trade Balance NZD	4				New Zealand: Gross Domestic Product (SA, Mil.NZ$)		
NZL	Food Prices MoM	5						
NZL	Building Permits MoM	6						
NZL	CPI YoY	7						
NZL	Employment Change QoQ	8						
NZL	GDP YoY	9						
NZL	Retail Sales Ex Inflation QoQ	10						
SWE	CPI Level	1						
SWE	Swedbank/Silf PMI Manufacturing	2						
SWE	CPI YoY	3	y					
SWE	Unemployment Rate	4			y			
SWE	CPI MoM	5						
SWE	GDP QoQ	6		y				
SWE	Retail Sales MoM	7						
SWE	Economic Tendency Survey	8						
SWE	CPIF YoY	9						
SWE	PPI MoM	10						
USA	Change in Nonfarm Payrolls	1				U.S.: Total Employees on Non-farm Payrolls (SA, Thous)		
USA	Initial Jobless Claims	2						
USA	CPI MoM	3	y					
USA	GDP Annualized QoQ	4		y				4
USA	CPI YoY	5						
USA	ISM Manufacturing	6						
USA	U. of Mich. Sentiment	7						
USA	Retail Sales Advance MoM	8						
USA	Conf. Board Consumer Confidence	9						
USA	PPI Final Demand MoM	10						
USA	Unemployment Rate	13			y			

Notes: The first column shows the country/zone of the economic release. The second column describes the economic variable. The third column shows the rank of the variable based on the relevance measure on the Bloomberg Terminal. The fourth, fifth, and sixth columns show the most relevant variable for CPI inflation, GDP, and unemployment, respectively. The seventh column shows the level variable I divide by in the case of variables that are changes in levels. The eighth column shows additional scalar adjustments I made to variables so that they are comparable across countries/zones. Sources: Bloomberg and Informa Global Markets

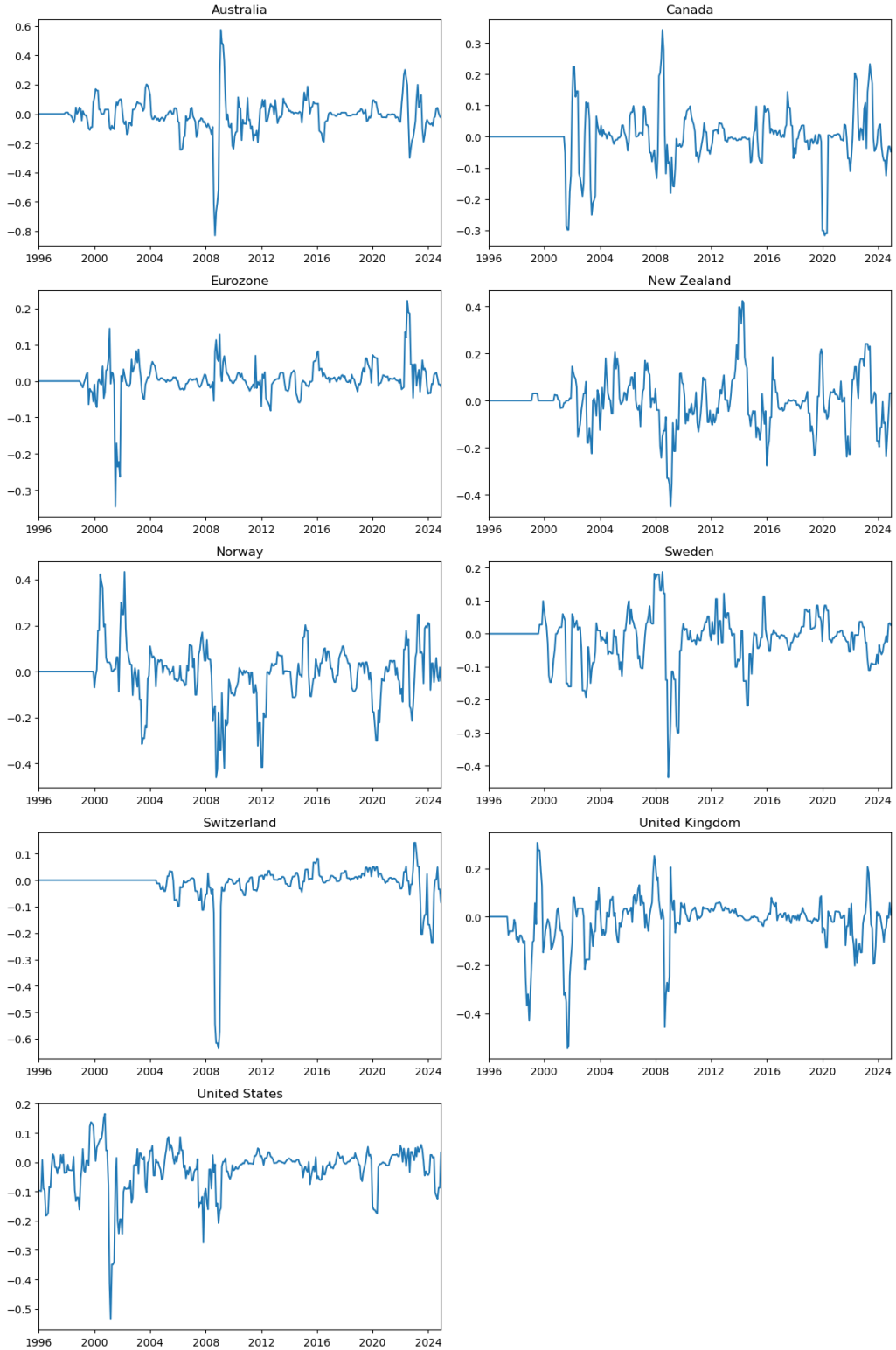
B Section 3 Appendix (MPS and Global Rate Cycle)

Figure B.1: Monetary Policy Surprises by Country/Zone: One-Month Windows



Notes: I sum the monetary policy surprises within each country/zone over each month. Sources: Bloomberg, CME, and Refinitiv.

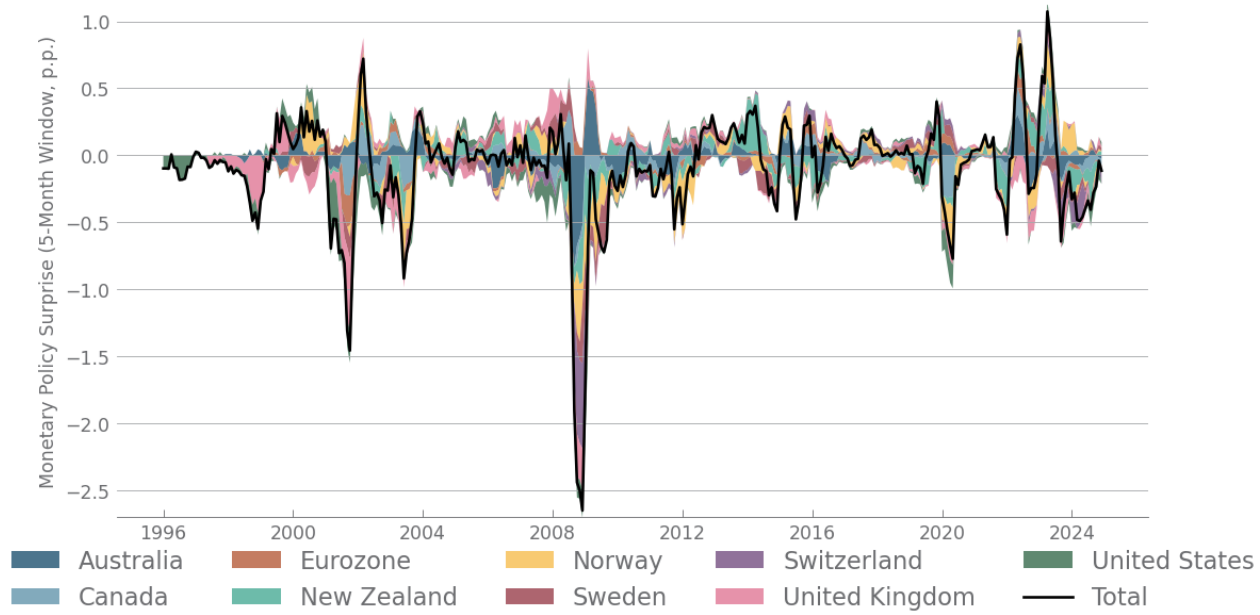
Figure B.2: Monetary Policy Surprises by Country/Zone: Summed Across Five-Month Windows



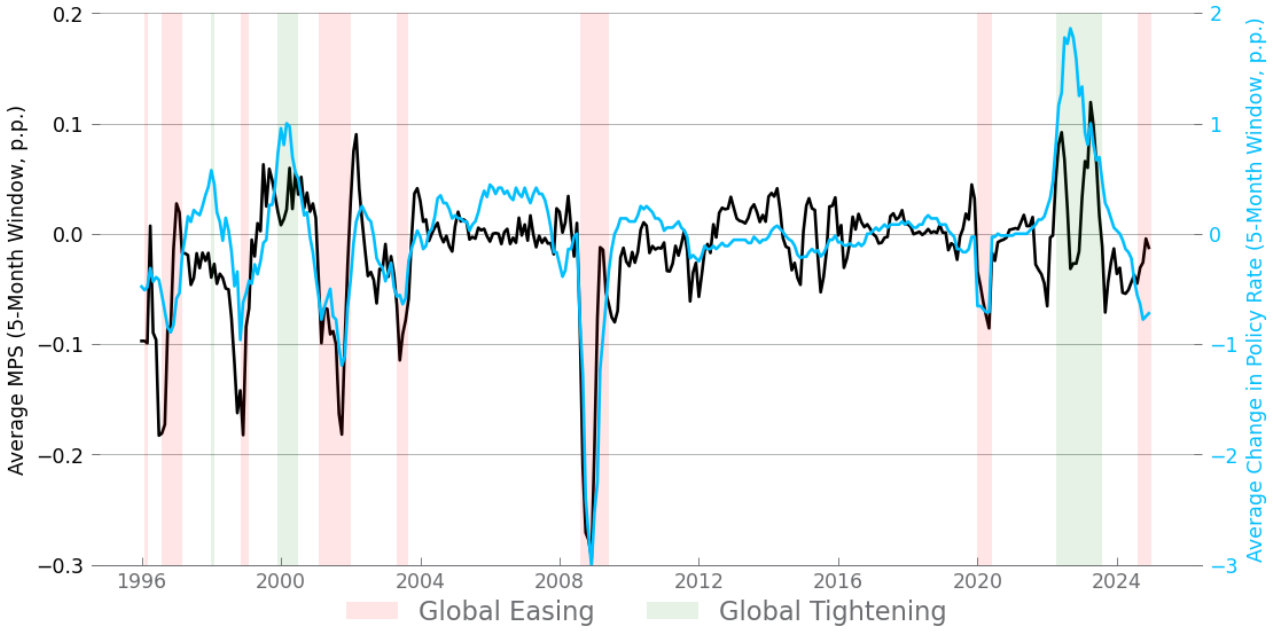
Notes: I sum the monetary policy surprises within each country/zone over a centered five-month rolling window. Sources: Bloomberg, CME, and Refinitiv.

Figure B.3: Monetary Policy Surprise Comovement and Relationship to Global Interest Rate Cycle: 1996–2024

(a) Monetary Policy Surprise Comovement



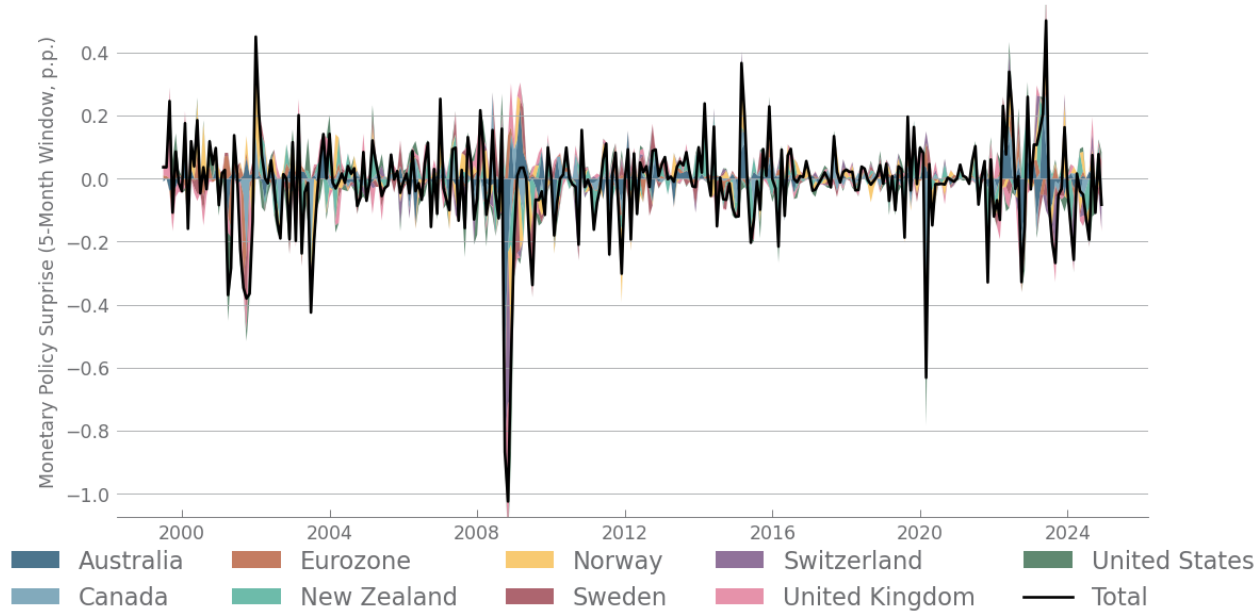
(b) Average Monetary Policy Surprises and the Global Interest Rate Cycle



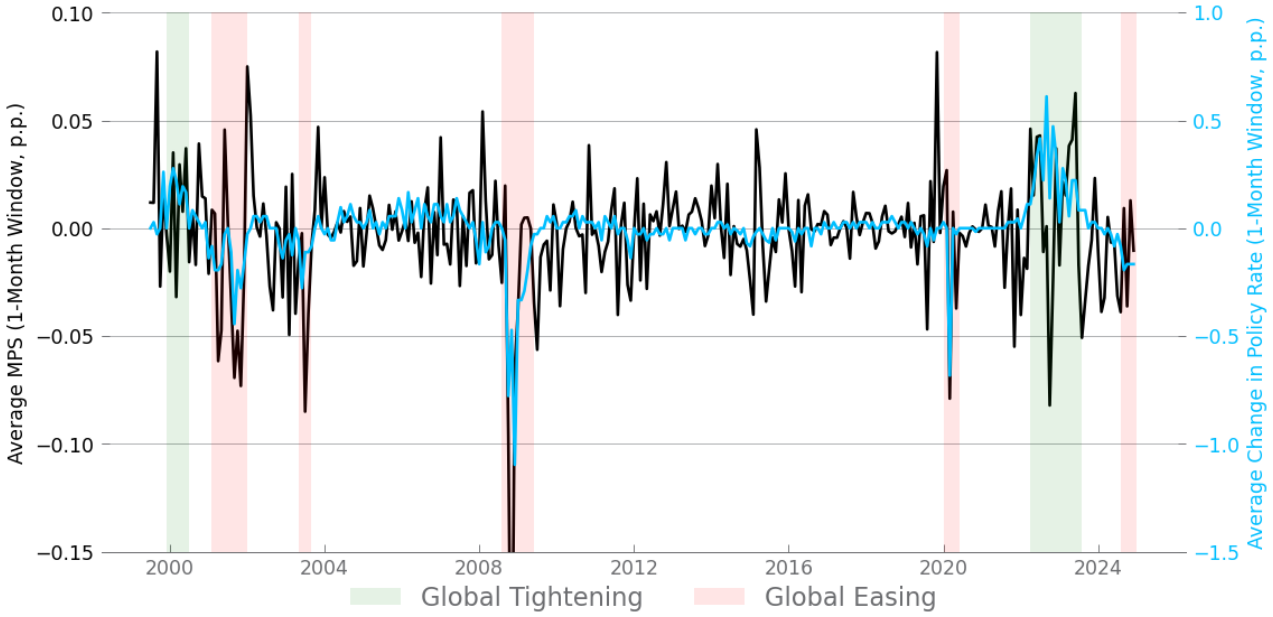
Notes: This figure follows the same approach as Figure 1, except that it considers the full sample from 1996 to 2024. Note that in the early part of the sample, monetary policy surprises are only defined at a limited number of countries/zones in the sample. Sources: Bloomberg, CME, and Refinitiv.

Figure B.4: Monetary Policy Surprise Comovement and Relationship to Global Interest Rate Cycle: One-Month Window

(a) Monetary Policy Surprise Comovement



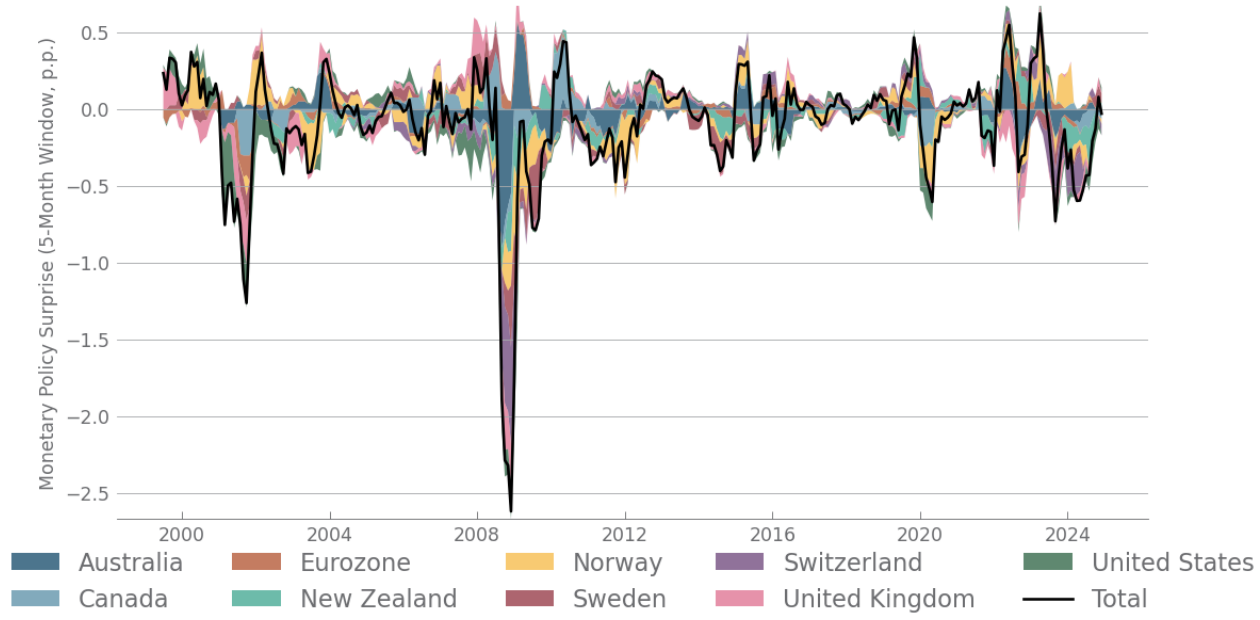
(b) Average Monetary Policy Surprises and the Global Interest Rate Cycle



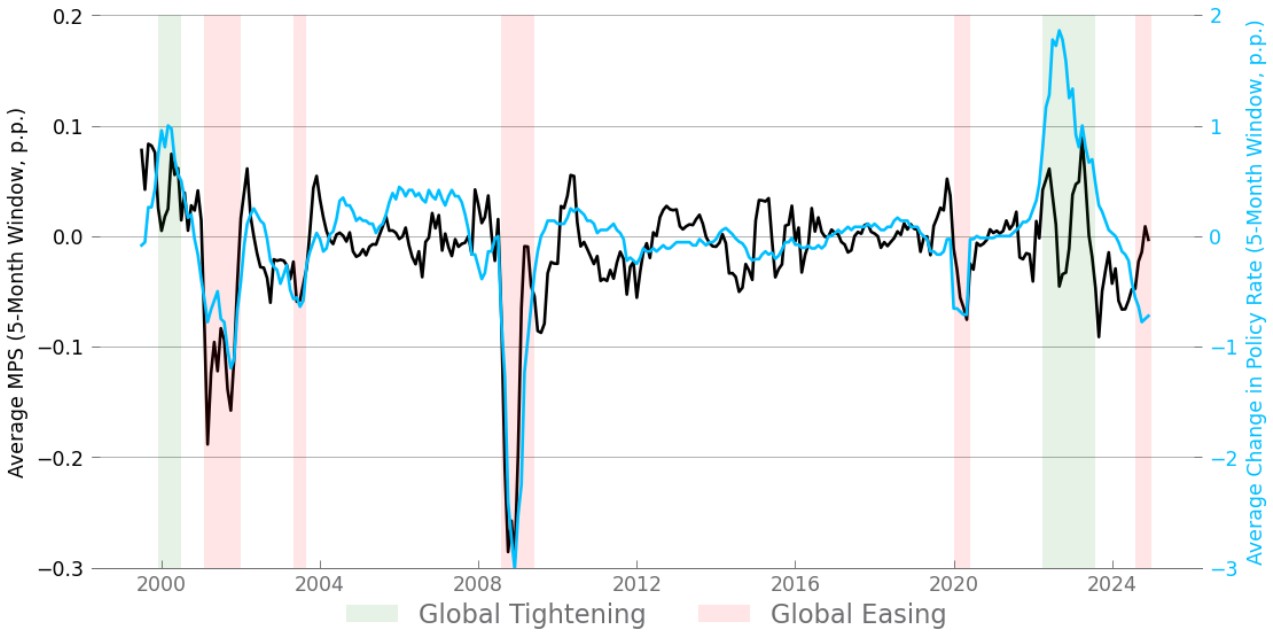
Notes: This figure follows the same approach as Figure 1, except that it considers one month rolling windows. Sources: Bloomberg, CME, and Refinitiv.

Figure B.5: Monetary Policy Surprise Comovement and Relationship to Global Interest Rate Cycle: 30-Minute Window

(a) Monetary Policy Surprise Comovement



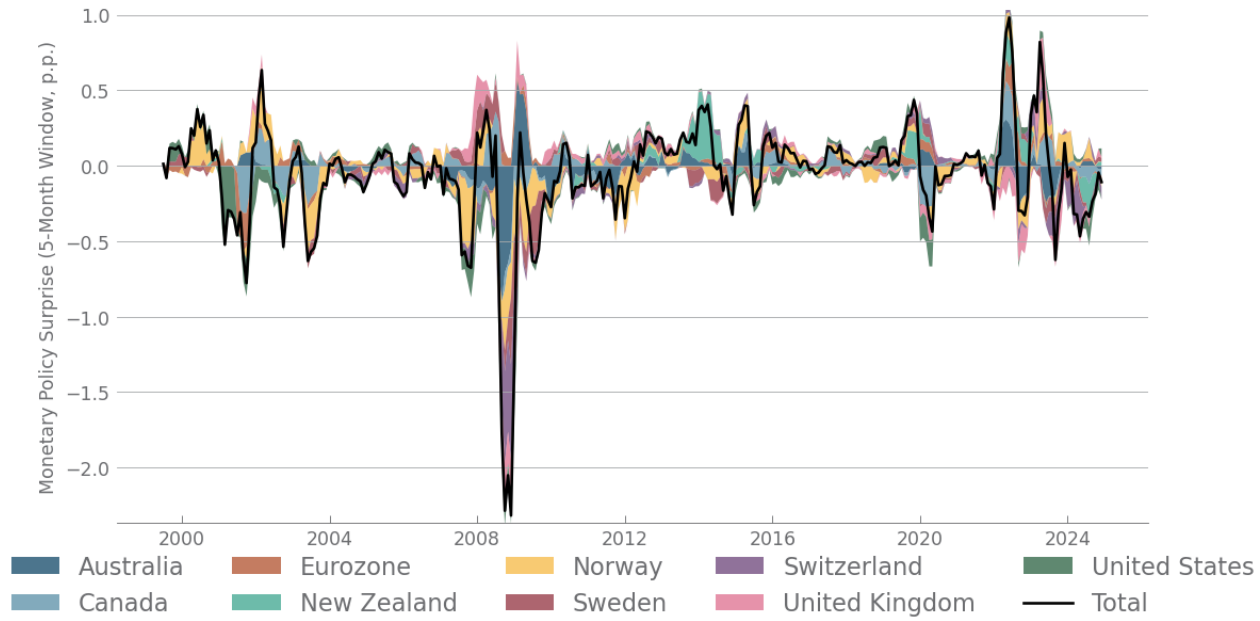
(b) Average Monetary Policy Surprises and the Global Interest Rate Cycle



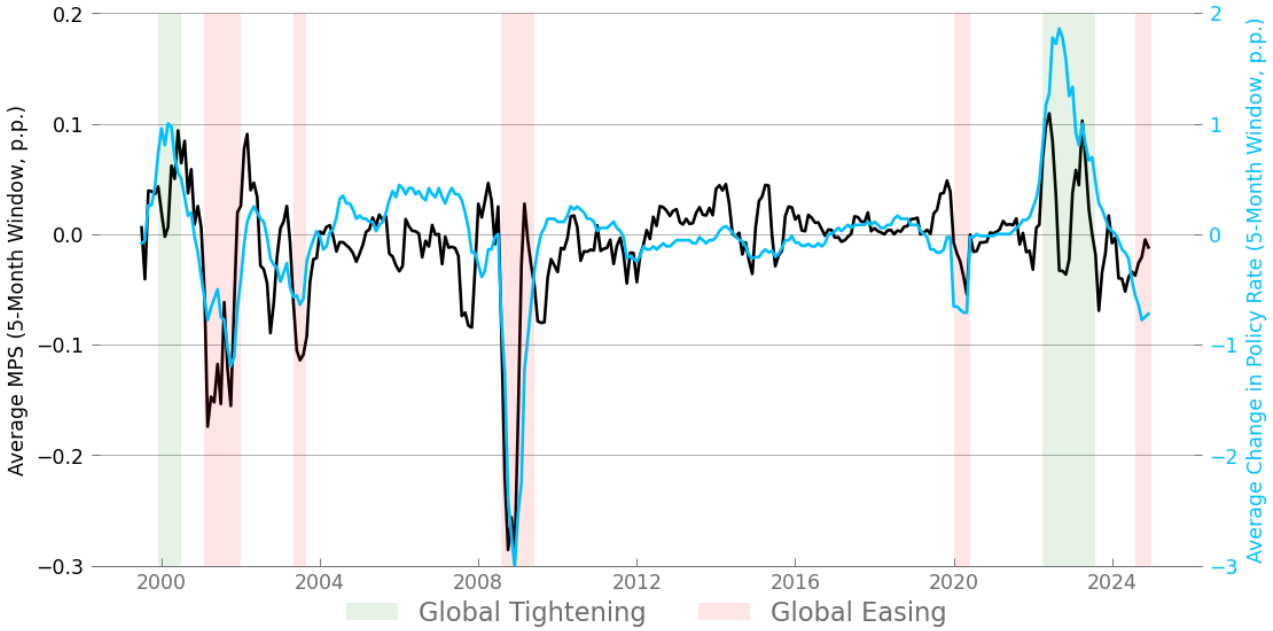
Notes: This figure follows the same approach as Figure 1, except that it uses monetary policy surprises constructed in a 30-minute window. Sources: Bloomberg, CME, and Refinitiv.

Figure B.6: Monetary Policy Surprise Comovement and Relationship to Global Interest Rate Cycle: Nelson-Siegel Six-Month Rate

(a) Monetary Policy Surprise Comovement



(b) Average Monetary Policy Surprises and the Global Interest Rate Cycle



Notes: This figure follows the same approach as Figure 1, except that it uses monetary policy surprises that are the change in the six-month interest rate for Nelson-Siegel fitted yield curves. Sources: Bloomberg, CME, and Refinitiv.

C Section 4 Appendix (Predicting MPS)

C.1 Supplemental Figures/Tables

Table C.1: Investigating Predictability: Interest Rate Measures with a 30-Day Window

$MPS_{z,t}$	(1)	(2)	(3)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$			0.211***
			(0.043)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$			-0.069**
			(0.026)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$			0.064*
			(0.025)
$\Delta_{t-15d,t-1d}(I_{mt,z} - \bar{I}_{mt})$			0.010
			(0.023)
$\Delta_{t-15d,t-1d}I_{st,USA}$			-0.032^{+}
			(0.019)
$\overline{MPS}^{Prior30Days}$	0.166**		-0.007
	(0.062)		(0.091)
$\Delta_{t-30d,t-1d}\overline{PolicyRate}$		0.077**	0.034
		(0.025)	(0.031)
N	1745	1764	1642
R^2	0.009	0.028	0.062
R^2_{adj}	0.008	0.027	0.058

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table C.2: Comparing the Predictability of Different Explanations: Without Standardization

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Intercept	-0.003*	-0.003*	-0.003^{+}	-0.004*	-0.003	-0.001	-0.002	-0.002	-0.002	-0.003^{+}
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.224***					0.216***		0.199***	0.216***	0.232***
	(0.035)					(0.037)		(0.032)	(0.033)	(0.038)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$	-0.089***					-0.076**		-0.065*	-0.087**	-0.088**
	(0.025)					(0.028)		(0.026)	(0.027)	(0.027)
$\Delta_{t-15d,t-1d}(I_{st,z}-\bar{I}_{st})$		0.059*				0.078**	0.071*		0.075**	0.065*
		(0.026)				(0.028)	(0.028)		(0.028)	(0.026)
$\Delta_{t-15d,t-1d}(I_{mt,z}-\bar{I}_{mt})$		0.020				0.010	0.015		0.017	0.005
		(0.023)				(0.026)	(0.027)		(0.026)	(0.023)
$\Delta_{t-30d,t-1d}\overline{\log(Stock)}$			-0.000			-0.001	-0.001	-0.000		-0.001^{+}
			(0.001)			(0.001)	(0.001)	(0.001)		(0.001)
$\Delta_{t-30d,t-1d}(\log(Stock_z)-\overline{\log(Stock)})$			0.000			0.000	0.000	0.000		0.000
			(0.001)			(0.001)	(0.001)	(0.001)		(0.001)
$\Delta_{t-30d,t-1d}\log(ExchangeRate_z)$			0.001**			0.001	0.001*	0.002**		0.001
			(0.001)			(0.001)	(0.001)	(0.001)		(0.001)
$\Delta_{t-30d,t-1d}VIX$			-0.001			-0.000	-0.001	-0.000		-0.000
			(0.001)			(0.000)	(0.001)	(0.000)		(0.000)
$\Delta_{t-30d,t-1d}\log(GoldPrice)$			-0.001			0.000	-0.000	-0.000		0.000
			(0.000)			(0.000)	(0.000)	(0.000)		(0.000)
$\Delta_{t-30d,t-1d}\log(OilPrice)$			-0.000			-0.000	-0.000	-0.000		-0.000
			(0.000)			(0.000)	(0.000)	(0.000)		(0.000)
$\sum_{k=1}^{30} UnemploymentRateNewsSurprise_{USA,t-k}$				-0.007						
				(0.011)						
$\sum_{k=1}^{30} PPIFinalDemandMoMNewsSurprise_{USA,t-k}$				0.002						
				(0.004)						
$\sum_{k=1}^{30} Conf.BoardConsumerConfidenceNewsSurprise_{USA,t-k}$				0.000						
				(0.000)						
$\sum_{k=1}^{30} RetailSalesAdvanceMoMNewsSurprise_{USA,t-k}$				0.000						
				(0.002)						
$\sum_{k=1}^{30} U.ofMich.SentimentNewsSurprise_{USA,t-k}$				-0.000						
				(0.001)						
$\sum_{k=1}^{30} ISMManufacturingNewsSurprise_{USA,t-k}$				0.002*						
				(0.001)						
$\sum_{k=1}^{30} CPIYoYNewsSurprise_{USA,t-k}$				0.030						
				(0.020)						
$\sum_{k=1}^{30} GDPAnnualizedQoQNewsSurprise_{USA,t-k}$				-0.010						
				(0.013)						
$\sum_{k=1}^{30} CPIMoMNewsSurprise_{USA,t-k}$				-0.025						
				(0.019)						
$\sum_{k=1}^{30} InitialJoblessClaimsNewsSurprise_{USA,t-k}$				-0.000						
				(0.000)						
$\sum_{k=1}^{30} ChangeinNonfarmPayrollsNewsSurprise_{USA,t-k}$				0.030						
				(0.022)						
N	1764	1662	1763	1764	1764	1661	1661	1763	1662	1661
R^2	0.042	0.015	0.008	0.012	0.104	0.156	0.127	0.140	0.152	0.058
R^2_{adj}	0.041	0.014	0.005	0.006	0.003	0.049	0.017	0.039	0.048	0.053
All Local News by Zone					*	*	*	*	*	
All USA News by Zone					*	*	*	*	*	
Number of Regressors	2	2	6	11	178	188	186	186	182	10

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table C.3: Comparing the Predictability of Different Explanations: 90-Day Window Asset Prices

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Intercept	0.000	-0.001	0.002	-0.001	-0.002	-0.000	0.002	0.000	-0.001	-0.002
	(0.023)	(0.028)	(0.024)	(0.026)	(0.026)	(0.024)	(0.026)	(0.022)	(0.025)	(0.024)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.329***					0.296***		0.275***	0.318***	0.315***
	(0.052)					(0.048)		(0.043)	(0.048)	(0.046)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$	-0.182***					-0.175**		-0.150**	-0.177**	-0.199***
	(0.051)					(0.054)		(0.051)	(0.055)	(0.051)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$		0.097*				0.128**	0.118*		0.124**	0.111*
		(0.044)				(0.048)	(0.049)		(0.047)	(0.044)
$\Delta_{t-15d,t-1d}(I_{mt,z} - \bar{I}_{mt})$		0.034				0.030	0.040		0.028	0.019
		(0.039)				(0.043)	(0.045)		(0.043)	(0.038)
$\Delta_{t-90d,t-1d}\overline{\log(Stock)}$			0.011			-0.023	0.008	-0.009		-0.028
			(0.041)			(0.046)	(0.046)	(0.041)		(0.042)
$\Delta_{t-90d,t-1d}(\log(Stock_z) - \overline{\log(Stock)})$			-0.019			-0.001	-0.004	-0.007		-0.015
			(0.038)			(0.035)	(0.034)	(0.034)		(0.037)
$\Delta_{t-90d,t-1d}\log(ExchangeRate_z)$			-0.004			-0.030	-0.026	-0.002		-0.027
			(0.035)			(0.040)	(0.042)	(0.036)		(0.036)
$\Delta_{t-90d,t-1d}VIX$			-0.111*			-0.095*	-0.114*	-0.081^{+}		-0.101^{+}
			(0.055)			(0.048)	(0.050)	(0.044)		(0.052)
$\Delta_{t-90d,t-1d}\log(GoldPrice)$			0.022			0.043	0.037	0.025		0.044
			(0.026)			(0.028)	(0.028)	(0.026)		(0.027)
$\Delta_{t-90d,t-1d}\log(OilPrice)$			0.033			-0.004	0.021	-0.009		-0.003
			(0.032)			(0.030)	(0.033)	(0.028)		(0.029)
$\sum_{k=1}^{30} UnemploymentRateNewsSurprise_{USA,t-k}$				-0.017						
				(0.028)						
$\sum_{k=1}^{30} PPIFinalDemandMoMNewsSurprise_{USA,t-k}$				0.012						
				(0.029)						
$\sum_{k=1}^{30} Conf.BoardConsumerConfidenceNewsSurprise_{USA,t-k}$				0.037						
				(0.037)						
$\sum_{k=1}^{30} RetailSalesAdvanceMoMNewsSurprise_{USA,t-k}$				0.004						
				(0.024)						
$\sum_{k=1}^{30} U.ofMich.SentimentNewsSurprise_{USA,t-k}$				-0.025						
				(0.032)						
$\sum_{k=1}^{30} ISMManufacturingNewsSurprise_{USA,t-k}$				0.067*						
				(0.029)						
$\sum_{k=1}^{30} CPIYoYNewsSurprise_{USA,t-k}$				0.070						
				(0.046)						
$\sum_{k=1}^{30} GDPAnnualizedQoQNewsSurprise_{USA,t-k}$				-0.018						
				(0.023)						
$\sum_{k=1}^{30} CPIMoMNewsSurprise_{USA,t-k}$				-0.055						
				(0.043)						
$\sum_{k=1}^{30} InitialJoblessClaimsNewsSurprise_{USA,t-k}$				-0.023						
				(0.025)						
$\sum_{k=1}^{30} ChangeinNonfarmPayrollsNewsSurprise_{USA,t-k}$				0.036						
				(0.027)						
N	1764	1662	1762	1764	1764	1660	1660	1762	1662	1660
R^2	0.042	0.015	0.020	0.012	0.104	0.158	0.137	0.139	0.152	0.063
R^2_{adj}	0.041	0.014	0.016	0.006	0.003	0.050	0.028	0.037	0.048	0.057
All Local News by Zone					*	*	*	*	*	
All USA News by Zone					*	*	*	*	*	
Number of Regressors	2	2	6	11	178	188	186	186	182	10

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. The dependent and independent variables are standardized by subtracting the mean and dividing by the standard deviation by variable. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table C.4: Comparing the Predictability of Different Explanations: 30-Minute MPS

$MPS^{30min}_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Intercept	0.003	0.000	0.001	0.001	0.003	0.004	0.005	0.003	0.004	0.001
	(0.026)	(0.031)	(0.028)	(0.028)	(0.028)	(0.028)	(0.029)	(0.026)	(0.029)	(0.028)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.286***					0.263***		0.238***	0.271***	0.291***
	(0.055)					(0.059)		(0.050)	(0.054)	(0.059)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$	-0.154**					-0.120^{+}		-0.101	-0.149*	-0.143*
	(0.058)					(0.066)		(0.062)	(0.063)	(0.062)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$		0.097*				0.117*	0.113*		0.107*	0.101*
		(0.046)				(0.050)	(0.048)		(0.051)	(0.045)
$\Delta_{t-15d,t-1d}(I_{mt,z} - \bar{I}_{mt})$		0.036				0.028	0.028		0.043	0.019
		(0.044)				(0.044)	(0.045)		(0.044)	(0.044)
$\Delta_{t-30d,t-1d}\overline{\log(Stock)}$			0.004			-0.031	-0.008	-0.011		-0.035
			(0.043)			(0.054)	(0.053)	(0.047)		(0.045)
$\Delta_{t-30d,t-1d}(\log(Stock_z) - \overline{\log(Stock)})$			-0.026			-0.000	-0.014	0.004		-0.018
			(0.036)			(0.034)	(0.035)	(0.033)		(0.035)
$\Delta_{t-30d,t-1d}\log(ExchangeRate_z)$			0.058^{+}			0.028	0.042	0.060^{+}		0.021
			(0.031)			(0.037)	(0.037)	(0.032)		(0.034)
$\Delta_{t-30d,t-1d}VIX$			-0.036			-0.028	-0.051	-0.007		-0.025
			(0.069)			(0.044)	(0.061)	(0.041)		(0.041)
$\Delta_{t-30d,t-1d}\log(GoldPrice)$			-0.024			0.037	0.016	0.010		0.025
			(0.036)			(0.036)	(0.033)	(0.032)		(0.036)
$\Delta_{t-30d,t-1d}\log(OilPrice)$			-0.019			-0.054	-0.036	-0.057^{+}		-0.045
			(0.041)			(0.035)	(0.039)	(0.032)		(0.031)
$\sum_{k=1}^{30} UnemploymentRateNewsSurprise_{USA,t-k}$				-0.017						
				(0.028)						
$\sum_{k=1}^{30} PPIFinalDemandMoMNewsSurprise_{USA,t-k}$				0.007						
				(0.029)						
$\sum_{k=1}^{30} Conf.BoardConsumerConfidenceNewsSurprise_{USA,t-k}$				0.044						
				(0.044)						
$\sum_{k=1}^{30} RetailSalesAdvanceMoMNewsSurprise_{USA,t-k}$				0.029						
				(0.028)						
$\sum_{k=1}^{30} U.ofMich.SentimentNewsSurprise_{USA,t-k}$				-0.021						
				(0.035)						
$\sum_{k=1}^{30} ISMManufacturingNewsSurprise_{USA,t-k}$				0.081*						
				(0.032)						
$\sum_{k=1}^{30} CPIYoYNewsSurprise_{USA,t-k}$				0.050						
				(0.051)						
$\sum_{k=1}^{30} GDPAnnualizedQoQNewsSurprise_{USA,t-k}$				-0.016						
				(0.025)						
$\sum_{k=1}^{30} CPIMoMNewsSurprise_{USA,t-k}$				-0.045						
				(0.049)						
$\sum_{k=1}^{30} InitialJoblessClaimsNewsSurprise_{USA,t-k}$				-0.013						
				(0.028)						
$\sum_{k=1}^{30} ChangeinNonfarmPayrollsNewsSurprise_{USA,t-k}$				0.024						
				(0.030)						
N	1403	1312	1402	1403	1403	1311	1311	1402	1312	1311
R^2	0.035	0.016	0.007	0.013	0.150	0.194	0.173	0.178	0.189	0.052
R^2_{adj}	0.034	0.014	0.002	0.005	0.027	0.059	0.036	0.052	0.058	0.045
All Local News by Zone					*	*	*	*	*	
All USA News by Zone					*	*	*	*	*	
Number of Regressors	2	2	6	11	178	188	186	186	182	10

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. This is similar to Table 7, except I consider a 30-minute window for the monetary policy surprises. The dependent and independent variables are standardized by subtracting the mean and dividing by the standard deviation by variable. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table C.5: Comparing the Predictability of Different Explanations: Two-Day MPS

$MPS^{2d}_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Intercept	0.007	0.012	0.006	-0.001	0.004	0.005	0.009	0.001	0.010	0.006
	(0.024)	(0.028)	(0.027)	(0.028)	(0.027)	(0.024)	(0.026)	(0.023)	(0.023)	(0.023)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.322***					0.295***		0.293***	0.307***	0.312***
	(0.087)					(0.061)		(0.062)	(0.060)	(0.077)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$	-0.118^{+}					-0.112^{+}		-0.105^{+}	-0.128*	-0.113^{+}
	(0.070)					(0.060)		(0.062)	(0.061)	(0.066)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$		0.118*				0.116*	0.104*		0.119*	0.123*
		(0.051)				(0.050)	(0.052)		(0.050)	(0.054)
$\Delta_{t-15d,t-1d}(I_{mt,z} - \bar{I}_{mt})$		0.001				-0.009	0.000		0.001	-0.016
		(0.037)				(0.039)	(0.041)		(0.038)	(0.037)
$\Delta_{t-30d,t-1d}\overline{\log(Stock)}$			0.022			-0.022	0.012	-0.019		-0.016
			(0.047)			(0.042)	(0.045)	(0.042)		(0.038)
$\Delta_{t-30d,t-1d}(\log(Stock_z) - \overline{\log(Stock)})$			-0.056^{+}			-0.030	-0.035	-0.036		-0.040
			(0.032)			(0.035)	(0.033)	(0.036)		(0.032)
$\Delta_{t-30d,t-1d}\log(ExchangeRate_z)$			0.048*			0.027	0.038	0.045^{+}		0.018
			(0.023)			(0.029)	(0.030)	(0.025)		(0.028)
$\Delta_{t-30d,t-1d}VIX$			-0.029			-0.019	-0.043	-0.007		-0.008
			(0.064)			(0.039)	(0.057)	(0.041)		(0.040)
$\Delta_{t-30d,t-1d}\log(GoldPrice)$			-0.037			-0.002	-0.028	-0.010		0.005
			(0.038)			(0.038)	(0.033)	(0.035)		(0.037)
$\Delta_{t-30d,t-1d}\log(OilPrice)$			0.025			-0.024	-0.006	-0.019		-0.011
			(0.039)			(0.026)	(0.029)	(0.026)		(0.025)
$\sum_{k=1}^{30} UnemploymentRateNewsSurprise_{USA,t-k}$				-0.027						
				(0.029)						
$\sum_{k=1}^{30} PPIFinalDemandMoMNewsSurprise_{USA,t-k}$				0.007						
				(0.033)						
$\sum_{k=1}^{30} Conf.BoardConsumerConfidenceNewsSurprise_{USA,t-k}$				0.029						
				(0.041)						
$\sum_{k=1}^{30} RetailSalesAdvanceMoMNewsSurprise_{USA,t-k}$				0.023						
				(0.023)						
$\sum_{k=1}^{30} U.ofMich.SentimentNewsSurprise_{USA,t-k}$				0.015						
				(0.033)						
$\sum_{k=1}^{30} ISMManufacturingNewsSurprise_{USA,t-k}$				0.051						
				(0.032)						
$\sum_{k=1}^{30} CPIYoYNewsSurprise_{USA,t-k}$				0.046						
				(0.048)						
$\sum_{k=1}^{30} GDPAnnualizedQoQNewsSurprise_{USA,t-k}$				-0.025						
				(0.028)						
$\sum_{k=1}^{30} CPIMoMNewsSurprise_{USA,t-k}$				0.000						
				(0.045)						
$\sum_{k=1}^{30} InitialJoblessClaimsNewsSurprise_{USA,t-k}$				-0.037						
				(0.030)						
$\sum_{k=1}^{30} ChangeinNonfarmPayrollsNewsSurprise_{USA,t-k}$				0.026						
				(0.028)						
N	1753	1748	1727	1814	1814	1722	1722	1727	1748	1722
R^2	0.060	0.016	0.013	0.011	0.112	0.165	0.131	0.158	0.166	0.073
R^2_{adj}	0.058	0.015	0.009	0.005	0.015	0.062	0.026	0.056	0.069	0.068
All Local News by Zone					*	*	*	*	*	
All USA News by Zone					*	*	*	*	*	
Number of Regressors	2	2	6	11	178	188	186	186	182	10

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. This is similar to Table 7, except I consider a two-day window for the monetary policy surprises. The dependent and independent variables are standardized by subtracting the mean and dividing by the standard deviation by variable. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table C.6: Impact of Global Rates by Country/Zone: 30-Minute MPS

$MPS^{30min}_{z,t}$	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{AUS}$	0.325	0.404^{+}	0.400^{+}	0.389*
	(0.238)	(0.230)	(0.222)	(0.198)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{CAN}$	0.175***	0.252***	0.258***	0.205**
	(0.048)	(0.056)	(0.065)	(0.069)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{CHE}$	0.134	0.251*	0.251*	0.225*
	(0.108)	(0.111)	(0.112)	(0.087)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{ECB}$	0.034	0.102^{+}	0.104^{+}	0.090
	(0.038)	(0.053)	(0.058)	(0.065)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{GBR}$	0.001	0.112	0.109	0.095
	(0.086)	(0.094)	(0.090)	(0.080)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{NOR}$	0.171	0.249*	0.249*	0.379**
	(0.144)	(0.108)	(0.115)	(0.134)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{NZL}$	0.219	0.343	0.325	0.001
	(0.230)	(0.230)	(0.228)	(0.243)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{SWE}$	0.123^{+}	0.210***	0.212**	0.174*
	(0.063)	(0.064)	(0.072)	(0.088)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{USA}$	0.100*	0.200***	0.198**	0.182**
	(0.048)	(0.059)	(0.065)	(0.068)
N	1403	1312	1311	1311
R^2	0.052	0.072	0.074	0.216
R^2_{adj}	0.041	0.057	0.055	0.071
Zone Dummies	*	*	*	*
Other Interest Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. This is similar to Table 8, except that I consider a 30-minute window for the monetary policy surprises. Zone dummies are dummy variables for each zone. Other interest rate controls correspond to the three interest rate controls added in regression (4) relative to regression (1) in Table 6. Asset price controls and all local/US news by zone refer to the controls added in regressions (3) and (5) in Table 7, respectively. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table C.7: Impact of Global Rates by Country/Zone: Two-Day MPS

$MPS^{2d}_{z,t}$	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{AUS}$	0.657*	0.713**	0.706**	0.725**
	(0.272)	(0.233)	(0.232)	(0.235)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{CAN}$	0.121	0.197	0.202	0.159
	(0.102)	(0.137)	(0.142)	(0.128)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{CHE}$	0.373	0.516*	0.467^{+}	0.473**
	(0.228)	(0.215)	(0.242)	(0.184)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{ECB}$	0.128*	0.189*	0.188*	0.173*
	(0.052)	(0.081)	(0.084)	(0.086)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{GBR}$	0.079	0.200*	0.194*	0.212*
	(0.066)	(0.082)	(0.083)	(0.085)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{NOR}$	0.240	0.331*	0.341*	0.314*
	(0.182)	(0.165)	(0.170)	(0.145)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{NZL}$	0.151*	0.267**	0.258**	0.239*
	(0.070)	(0.086)	(0.100)	(0.100)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{SWE}$	0.258**	0.354***	0.352***	0.337**
	(0.081)	(0.097)	(0.099)	(0.113)
$\Delta_{t-15d,t-1d}\bar{I}_{st} * \mathbb{1}_{USA}$	0.077	0.155^{+}	0.152^{+}	0.135
	(0.064)	(0.082)	(0.085)	(0.084)
N	1753	1748	1722	1722
R^2	0.094	0.112	0.110	0.199
R^2_{adj}	0.085	0.101	0.096	0.091
Zone Dummies	*	*	*	*
Other Interest Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

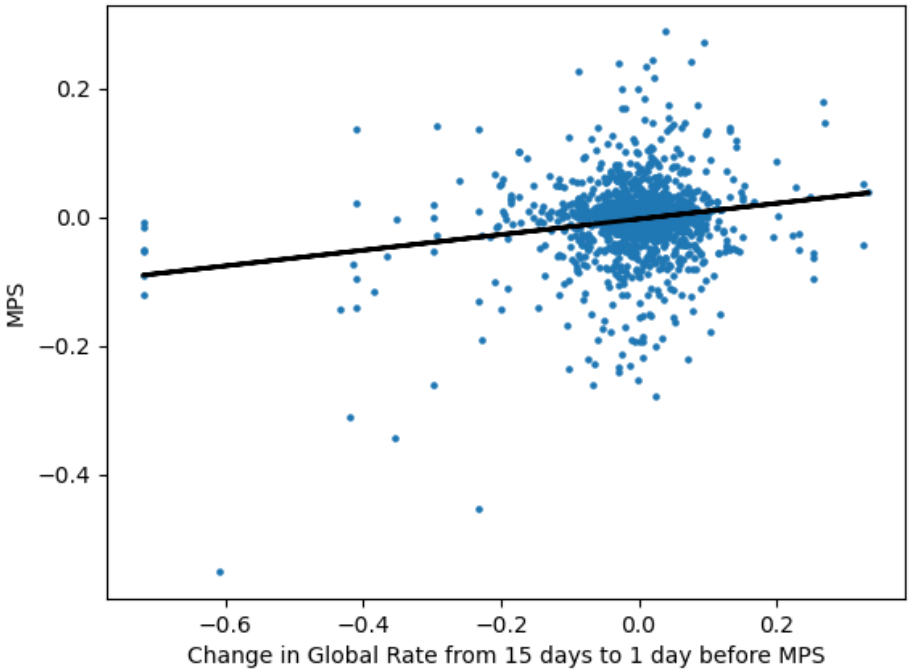
Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. This is similar to Table 8, except that I consider a two-day window for the monetary policy surprises. Zone dummies are dummy variables for each zone. Other interest rate controls correspond to the three interest rate controls added in regression (4) relative to regression (1) in Table 6. Asset price controls and all local/US news by zone refer to the controls added in regressions (3) and (5) in Table 7, respectively. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

Table C.8: Investigating Predictability: Five-Year Subsets

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-0.003*	-0.010^{+}	-0.004	-0.005^{+}	-0.001	0.001	-0.003
	(0.001)	(0.005)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.124***	0.097	0.113**	0.148***	0.084^{+}	0.132^{+}	0.078
	(0.024)	(0.062)	(0.043)	(0.030)	(0.050)	(0.072)	(0.051)
N	1835	95	335	376	375	323	331
R^2	0.034	0.020	0.019	0.074	0.004	0.009	0.016
R^2_{adj}	0.034	0.010	0.016	0.071	0.001	0.005	0.013
Years	1996-2024	1996-1999	2000-2004	2005-2009	2010-2014	2015-2019	2020-2024

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Sources: Bloomberg, CME, and Refinitiv.

Figure C.1: Scatter Plot of Baseline Relationship



Notes: Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, and Refinitiv.

C.2 News Surprises: Additional Predictability Regressions

In this section, I assess the predictive power of other news surprise regressions. I run regressions of the form in Equation (C.1). I regress the monetary policy surprise in zone z at time t on J news surprises measured in the 30 days prior to the central bank announcement. A news surprise at time $t-k$ is set to zero if no release took place on day $t-k$. I allow for

each news surprise to have a different impact, β_j, on the monetary policy surprise:

$$MPS_{z,t} = \alpha + \sum_{j \in J} \beta_j \left(\sum_{k=1}^{30} NewsSurprise^{j}_{z,t-k} \right) + u_{z,t}. \tag{C.1}$$

Table C.9: Predicting Monetary Policy Surprises: Additional Economic News Surprise Results

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	-0.003*	-0.004*	-0.004*	-0.003*	-0.002	-0.004*
	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)
$\sum_{k=1}^{30} CPINewsSurprise_{z,t-k}$	0.009					
	(0.009)					
$\sum_{k=1}^{30} GDPNewsSurprise_{z,t-k}$	0.002					
	(0.007)					
$\sum_{k=1}^{30} UnempNewsSurprise_{z,t-k}$	0.011					
	(0.008)					
$\sum_{k=1}^{30} CPIMoMNewsSurprise_{USA,t-k}$		0.005	-0.025			
		(0.014)	(0.019)			
$\sum_{k=1}^{30} GDPAnnualizedQoQNewsSurprise_{USA,t-k}$		-0.010	-0.010			
		(0.012)	(0.013)			
$\sum_{k=1}^{30} UnemploymentRateNewsSurprise_{USA,t-k}$		-0.005	-0.007			
		(0.012)	(0.011)			
$\sum_{k=1}^{30} PPIFinalDemandMoMNewsSurprise_{USA,t-k}$			0.002			
			(0.004)			
$\sum_{k=1}^{30} Conf.BoardConsumerConfidenceNewsSurprise_{USA,t-k}$			0.000			
			(0.000)			
$\sum_{k=1}^{30} RetailSalesAdvanceMoMNewsSurprise_{USA,t-k}$			0.000			
			(0.002)			
$\sum_{k=1}^{30} U.ofMich.SentimentNewsSurprise_{USA,t-k}$			-0.000			
			(0.001)			
$\sum_{k=1}^{30} ISMManufacturingNewsSurprise_{USA,t-k}$			0.002*			
			(0.001)			
$\sum_{k=1}^{30} CPIYoYNewsSurprise_{USA,t-k}$			0.030			
			(0.020)			
$\sum_{k=1}^{30} InitialJoblessClaimsNewsSurprise_{USA,t-k}$			-0.000			
			(0.000)			
$\sum_{k=1}^{30} ChangeinNonfarmPayrollsNewsSurprise_{USA,t-k}$			0.030			
			(0.022)			
N	1764	1764	1764	1764	1764	1764
R^2	0.002	0.001	0.012	0.015	0.039	0.068
R^2_{adj}	0.000	-0.001	0.006	0.000	-0.013	0.012
CPI/GDP/Unemp Local News by Zone				*		
All Local News by Zone					*	
All USA News by Zone						*

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, Consensus Economics, Informa Global Markets, and Refinitiv.

Table C.9 presents the additional results for the degree to which news surprises predict monetary policy surprises. In the first regression, I compile the surprise from the CPI, GDP, and unemployment news releases that take place from 30 days before to one day before a central bank announcement in the country/zone of that announcement. Regressing six-month monetary policy surprises on these three variables, I find these variables are not significant at the 10 percent level and

have an adjusted R^2 of zero, so they do not appear to explain monetary policy surprises. Note that in this case, I am assuming that the impact of a CPI/GDP/unemployment surprise is the same for each country/zone. It might be expected that smaller countries/zones would place more weight on US news than local news. Therefore, in regression (2), I repeat the exercise but with US CPI, GDP, and unemployment news. No variables are significant, and I find a negative adjusted R^2, which suggests that these variables do not explain monetary policy surprises. I also include the other 10 most relevant macroeconomic news releases for the United States plus unemployment in regression (3) (this repeats regression (4) in Table 7). The Institute for Supply Management manufacturing index is significant at the 1 percent level, but other variables are not significant. In this case, I find an adjusted R^2 of 0.6 percent, which suggests that broader US economic news has at best limited predictive power.

I find similar results when I allow for the differential effects of news. In the first three regressions, I assume that economic news has the same impact on monetary policy surprises for each country/zone in my sample. I relax this assumption in the next three regressions (the fourth to sixth regressions in Table C.9). In the fourth regression, I look again at the impact of CPI, GDP, and unemployment news surprises. Since this regression includes separate CPI, GDP, and unemployment news surprises for each country/zone, the number of regressors rises from three in regression (1) to 30 in regression (4), so I do not present the values for individual coefficients. The adjusted R^2 is zero, which suggests that these variables do not have predictive power. In regression (5), I regress monetary policy surprises on the 10 most relevant macroeconomic news surprises for each country/zone.[41] Again, I find a negative adjusted R^2, which suggests variables do not have predictive power. Finally, in regression (6), I regress monetary policy surprises on the most relevant US news surprises but, unlike in column (3), allow these to have differential effects by country/zone. I find a positive adjusted R^2 but only of 1.2 percent, which suggests these variables have limited predictive power.

C.3 United States-only Predictability Regressions

Most papers in this literature consider results for the United States only. I repeat my analysis considering only US monetary policy surprises in Table C.10. Regression (1) considers only the primary measure of global interest rates. This suggests that a 1 percentage point increase in global rates in the 15 days prior to a Federal Reserve announcement is associated with an increase in the surprise of 9.8 basis points. This is the same as the coefficient in regression (1) in Table 8 where I consider the impact by country/zone. Regression (2) introduces the additional interest rate controls. The baseline global rate measure remains significant. Regression (3) considers asset price controls. However, these do not offer strong predictive power and have a negative adjusted R^2. Regression (4) considers US news surprises. This yields a negative adjusted R^2, which suggests that news releases overall do not predict US monetary policy surprises. The only news variable that is significant is nonfarm payrolls. This corresponds to Bauer and Swanson (2023a); Sastry (2022), who also find that nonfarm payrolls significantly predict monetary policy surprises. In regression (5), I consider all the controls together. I find that the change in short-term global interest rates is significant at the 1 percent level and has a very similar coefficient to regression (2). The significance for nonfarm payrolls declines, and other variables are not significant. Therefore, my results also hold for the United States.

[41] I exclude news surprises for which I have fewer than 20 (non-zero) observations. This only led to the exclusion of Swiss retail sales. Therefore, I have 10 surprises for each country/zone, except for Switzerland, for which I have nine, and the United States, for which I have 11 (due to the inclusion of unemployment), yielding a total of 90 regressors.

Table C.10: Predicting Monetary Policy Surprises: United States Only

$MPS_{z,t}$	(1)	(2)	(3)	(4)	(5)
Intercept	-0.006*	-0.006*	-0.007*	-0.006*	-0.006^{+}
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.098**	0.169**			0.172**
	(0.030)	(0.057)			(0.062)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$		-0.058			-0.051
		(0.040)			(0.044)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$		-0.000			0.004
		(0.041)			(0.044)
$\Delta_{t-15d,t-1d}(I_{mt,z} - \bar{I}_{mt})$		0.011			0.006
		(0.047)			(0.049)
$\Delta_{t-30d,t-1d}\overline{\log(Stock)}$			0.001		0.000
			(0.001)		(0.001)
$\Delta_{t-30d,t-1d}(\log(Stock_z) - \overline{\log(Stock)})$			0.001		0.002
			(0.001)		(0.001)
$\Delta_{t-30d,t-1d}\log(ExchangeRate_z)$			-0.001		-0.001
			(0.002)		(0.002)
$\Delta_{t-30d,t-1d}VIX$			0.001		0.002^{+}
			(0.001)		(0.001)
$\Delta_{t-30d,t-1d}\log(GoldPrice)$			-0.001		-0.000
			(0.001)		(0.001)
$\Delta_{t-30d,t-1d}\log(OilPrice)$			0.000		0.000
			(0.000)		(0.000)
$\sum_{k=1}^{30} UnemploymentRateNewsSurprise_{USA,t-k}$				-0.019	-0.007
				(0.020)	(0.021)
$\sum_{k=1}^{30} PPIFinalDemandMoMNewsSurprise_{USA,t-k}$				0.004	0.001
				(0.008)	(0.008)
$\sum_{k=1}^{30} Conf.BoardConsumerConfidenceNewsSurprise_{USA,t-k}$				0.000	-0.000
				(0.001)	(0.001)
$\sum_{k=1}^{30} RetailSalesAdvanceMoMNewsSurprise_{USA,t-k}$				-0.002	-0.001
				(0.005)	(0.005)
$\sum_{k=1}^{30} U.ofMich.SentimentNewsSurprise_{USA,t-k}$				0.000	0.001
				(0.001)	(0.001)
$\sum_{k=1}^{30} ISMManufacturingNewsSurprise_{USA,t-k}$				0.002	0.001
				(0.001)	(0.002)
$\sum_{k=1}^{30} CPIYoYNewsSurprise_{USA,t-k}$				0.007	-0.012
				(0.035)	(0.036)
$\sum_{k=1}^{30} GDPAnnualizedQoQNewsSurprise_{USA,t-k}$				-0.014	-0.018
				(0.027)	(0.028)
$\sum_{k=1}^{30} CPIMoMNewsSurprise_{USA,t-k}$				-0.027	-0.018
				(0.036)	(0.036)
$\sum_{k=1}^{30} InitialJoblessClaimsNewsSurprise_{USA,t-k}$				0.000	0.000
				(0.000)	(0.000)
$\sum_{k=1}^{30} ChangeinNonfarmPayrollsNewsSurprise_{USA,t-k}$				0.092*	0.075^{+}
				(0.039)	(0.040)
N	230	227	229	230	226
R^2	0.044	0.055	0.022	0.042	0.108
R^2_{adj}	0.039	0.038	-0.005	-0.006	0.016

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, Consensus Economics, Informa Global Markets, and Refinitiv.

C.4 Robustness Checks Full Regression Tables

Table C.11: Robustness Check: Baseline (Row A in Table 9)

$MPS_{z,t}$	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.121***	0.231***	0.232***	0.216***
	(0.026)	(0.035)	(0.038)	(0.037)
N	1764	1662	1661	1661
R^2	0.032	0.055	0.058	0.156
R^2_{adj}	0.031	0.053	0.053	0.049
Intercept	*	*	*	*
Other Interest Rate Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

$^{+}$, *, **, and *** represent a significance of less than 10%, 5%, 1%, and 0.1%, respectively. Standard errors clustered by survey month. Monetary policy surprises in 2020 are excluded by default. Monetary policy surprises in 2020 are excluded by default.

Table C.12: Robustness Check: External MPS Measures (Row B in Table 9)

mps_ext	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.108***	0.158***	0.157***	0.146***
	(0.031)	(0.046)	(0.044)	(0.043)
N	1361	1261	1259	1259
R^2	0.021	0.027	0.031	0.134
R^2_{adj}	0.020	0.024	0.023	0.020
Intercept	*	*	*	*
Other Interest Rate Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

Similar to Table C.11 except that I measure MPS using external measures. Monetary policy surprises in 2020 are excluded by default.

Table C.13: Robustness Check: Including COVID-19 Pandemic (Row C in Table 9)

$MPS_{z,t}$	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.124***	0.225***	0.231***	0.219***
	(0.024)	(0.031)	(0.036)	(0.037)
N	1835	1733	1732	1732
R^2	0.034	0.061	0.064	0.154
R^2_{adj}	0.034	0.059	0.058	0.050
Intercept	*	*	*	*
Other Interest Rate Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

Similar to Table C.11 except that points in 2020 are included. Monetary policy surprises in 2020 are excluded by default.

Table C.14: Robustness Check: Removing Outliers (Row D in Table 9)

$MPS_{z,t}$	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.105**	0.221***	0.223***	0.215***
	(0.035)	(0.049)	(0.052)	(0.045)
N	1757	1655	1654	1654
R^2	0.018	0.038	0.040	0.140
R^2_{adj}	0.017	0.036	0.035	0.030
Intercept	*	*	*	*
Other Interest Rate Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

Similar to Table C.11 except that outliers are excluded, that is, only changes in global rates that are less than 50 basis points are considered. Monetary policy surprises in 2020 are excluded by default.

Table C.15: Robustness Check: MPS with Nelson-Siegel (Row E in Table 9)

$MPS^{NS}_{z,t}$	(1)	(2)	(3)	(4)
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.121***	0.206***	0.215***	0.205***
	(0.029)	(0.036)	(0.040)	(0.041)
N	1394	1300	1300	1300
R^2	0.035	0.055	0.060	0.206
R^2_{adj}	0.034	0.053	0.053	0.072
Intercept	*	*	*	*
Other Interest Rate Controls		*	*	*
Asset Price Controls			*	*
All Local News by Zone				*
All USA News by Zone				*

Similar to Table C.11 except that the monetary policy surprises are measured using the Nelson-Siegel approach. Monetary policy surprises in 2020 are excluded by default.

D Section 5 Appendix (Explaining Predictability)

D.1 Supplemental Figures/Tables

Table D.1: Applying Sastry (2022): Nonrelative Domestic Rates

$\Delta_{s(t),s(t)+1m}VarForecast_z$	CPI	GDP	Unemp.	CPI	GDP	Unemp
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.771***	0.623***	-0.419***	0.728***	0.552**	-0.388***
	(0.095)	(0.161)	(0.066)	(0.095)	(0.197)	(0.085)
$\Delta_{t-15d,t-1d}I_{st,z}$				0.034	0.057	-0.021
				(0.056)	(0.060)	(0.043)
N	1851	1851	1393	1821	1821	1364
R^2	0.112	0.061	0.087	0.110	0.059	0.085
R^2_{adj}	0.112	0.061	0.086	0.109	0.058	0.084
Intercept	*	*	*	*	*	*

Notes: $^+$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. Sources: Bloomberg, CME, Consensus Economics, Informa Global Markets, and Refinitiv.

D.2 Examining Potential Channels

The analysis in Section 5 establishes that markets underreact to signals from global interest rates. However, it does not explain *why* markets find global signals particularly difficult to process. In this subsection, I examine three potential channels that may explain this difficulty: novelty, complexity, and strategic interaction.

The first channel is *novelty*. Markets may have gradually learned to process global interest rate signals over time. Research on the Global Financial Cycle and the co-movement of international monetary policy has emerged relatively recently

(**?**Miranda-Agrippino and Rey, 2020, 2022). Early in the sample period, markets had limited understanding of how strongly monetary policies move together across countries. Over time, as economists have documented these patterns and market participants have accumulated experience, markets may have become more adept at incorporating global signals into their expectations. If this channel is operative, the predictability of monetary policy surprises using global interest rates should decline over time.

The second channel is *complexity*. Processing signals from multiple central banks simultaneously is informationally more demanding than tracking a single central bank. When many central banks hold meetings clustered closely in time, markets face greater difficulty aggregating and interpreting the signals from each. This information overload may lead to greater underreaction during periods when the information environment is particularly dense. If this channel is important, predictability should be higher when more central banks are meeting concurrently.

The third channel is *strategic interaction*. When central banks are explicitly coordinating policy through institutional arrangements, markets face uncertainty about the extent to which each central bank will follow domestic conditions versus coordinate with global policy. This coordination uncertainty may make global signals harder to interpret. The Federal Reserve's temporary swap line arrangements during the Global Financial Crisis (December 2007 through February 2010) represent a period of heightened explicit coordination among major central banks. If strategic interaction matters, predictability should be higher during this period of active coordination.

To test these channels, I estimate regressions of the form:

$$MPS_{z,t} = \beta_0 + \beta_1 \Delta_{t-15d,t-1d} \bar{I}_{st} + \beta_2 \left(\Delta_{t-15d,t-1d} \bar{I}_{st} \times Channel_t \right) + \beta_3 Channel_t + u_{z,t} \tag{D.1}$$

where $Channel_t$ is a variable measuring the intensity of each channel. For the novelty channel, I use a linear time trend normalized to equal zero in 1996. For the complexity channel, I count the number of central banks in the sample that held meetings during a 30-day window before the announcement.[42] For the strategic interaction channel, I use an indicator variable equal to one during the Federal Reserve's temporary swap line period in the Global Financial Crisis.

Table D.2 presents the results. Each pair of columns corresponds to one channel, with the first column excluding controls and the second including the full set of interest rate, asset price, and news controls used in earlier specifications. The final two columns include all three channel interactions simultaneously to examine their joint explanatory power.

Encouragingly, all three interaction terms have signs in the expected direction. In the specifications without controls (columns 1, 3, 5, and 7 in Table D.2), the novelty interaction is negative, consistent with markets learning to process global signals over time. The complexity interaction is positive, suggesting greater underreaction when more central banks meet concurrently.[43] The strategic interaction term is also positive, indicating higher predictability during periods of explicit coordination through Federal Reserve swap lines. When all three channels are included jointly (column 7), each interaction term retains its expected sign. The specifications with full controls (columns 2, 4, 6, and 8 in Table D.2) show the same pattern. However, the degree of statistical significance is limited. The complexity interaction is significant at the 10 percent level in the specification with controls (columns 4 and 8). The strategic interaction term is significant at the 10 percent level in the specification without controls (columns 5 and 7).

[42] I also demean this complexity variable to aid interpretation.

[43] Note that the direct effect of $NumMeetings$ on monetary policy surprises is negative and significant at the 5 percent level across all specifications, indicating that periods with more concurrent meetings are associated with more negative surprises on average. However, the *interaction* with global interest rates is positive—when global rates are changing during busy periods, markets underreact more.

Table D.2: Examining Channels for Market Underreaction to Global Signals

	Novelty	Novelty	Complexity	Complexity	Strategic	Strategic	All	All
$\Delta_{t-15d,t-1d}\bar{I}_{st}$	0.170***	0.210***	0.108***	0.165***	0.076*	0.165**	0.091	0.139^{+}
	(0.046)	(0.053)	(0.025)	(0.034)	(0.031)	(0.054)	(0.063)	(0.074)
$\Delta_{t-15d,t-1d}\bar{I}_{st} \times TimeTrend$	-0.004	-0.002					-0.002	0.000
	(0.003)	(0.004)					(0.004)	(0.004)
$TimeTrend$	0.000	0.000					0.000	0.000
	(0.000)	(0.000)					(0.000)	(0.000)
$\Delta_{t-15d,t-1d}\bar{I}_{st} \times NumMeetings$			0.015	0.025^{+}			0.012	0.026^{+}
			(0.019)	(0.015)			(0.020)	(0.015)
$NumMeetings$			-0.002**	-0.002**			-0.002*	-0.002*
			(0.001)	(0.001)			(0.001)	(0.001)
$\Delta_{t-15d,t-1d}\bar{I}_{st} \times TempSwapLine$					0.074^{+}	0.023	0.068^{+}	0.016
					(0.043)	(0.049)	(0.036)	(0.049)
$TempSwapLine$					-0.005	-0.006	-0.004	-0.005
					(0.006)	(0.006)	(0.005)	(0.005)
$\Delta_{t-15d,t-1d}\bar{I}_{mt}$		-0.061*		-0.049*		-0.058*		-0.044
		(0.024)		(0.024)		(0.029)		(0.028)
$\Delta_{t-15d,t-1d}(I_{st,z} - \bar{I}_{st})$		0.074*		0.076**		0.074*		0.077**
		(0.029)		(0.030)		(0.029)		(0.030)
$\Delta_{t-15d,t-1d}(I_{mt,z} - \bar{I}_{mt})$		0.008		0.009		0.009		0.009
		(0.025)		(0.026)		(0.025)		(0.026)
$\Delta_{t-15d,t-1d}\overline{\log(Stock)}$		-0.002**		-0.002**		-0.002**		-0.002**
		(0.001)		(0.001)		(0.001)		(0.001)
$\Delta_{t-90d,t-15d}\overline{\log(Stock)}$		0.001^{+}		0.000		0.001^{+}		0.000
		(0.000)		(0.000)		(0.000)		(0.000)
$\Delta_{t-15d,t-1d}(\log(Stock_z) - \overline{\log(Stock)})$		0.000		0.000		0.000		0.001
		(0.001)		(0.001)		(0.001)		(0.001)
$\Delta_{t-90d,t-15d}(\log(Stock_z) - \overline{\log(Stock)})$		-0.000		-0.000		-0.000		-0.000
		(0.000)		(0.000)		(0.001)		(0.000)
$\Delta_{t-15d,t-1d}\log(ExchangeRate_z)$		0.002*		0.002*		0.002*		0.002*
		(0.001)		(0.001)		(0.001)		(0.001)
$\Delta_{t-90d,t-15d}\log(ExchangeRate_z)$		-0.001^{+}		-0.001^{+}		-0.001^{+}		-0.001*
		(0.000)		(0.000)		(0.000)		(0.000)
$\Delta_{t-15d,t-1d}\log(GoldPrice)$		-0.000		-0.000		-0.000		-0.000
		(0.001)		(0.000)		(0.000)		(0.000)
$\Delta_{t-90d,t-15d}\log(GoldPrice)$		0.000*		0.000^{+}		0.000*		0.000^{+}
		(0.000)		(0.000)		(0.000)		(0.000)
$\Delta_{t-15d,t-1d}\log(OilPrice)$		-0.000		-0.000		-0.000		-0.000
		(0.000)		(0.000)		(0.000)		(0.000)
$\Delta_{t-90d,t-15d}\log(OilPrice)$		0.000		0.000		0.000		0.000
		(0.000)		(0.000)		(0.000)		(0.000)
N	1764	1660	1764	1660	1764	1660	1764	1660
R^2	0.034	0.170	0.039	0.178	0.036	0.170	0.043	0.179
R^2_{adj}	0.032	0.060	0.038	0.069	0.034	0.060	0.040	0.068
Intercept	*	*	*	*	*	*	*	*
Other Interest Rate Controls		*		*		*		*
Asset Price Controls		*		*		*		*
All Local News by Zone		*		*		*		*
All USA News by Zone		*		*		*		*

Notes: $^{+}$, *, **, and *** represent a significance of less than 10 percent, 5 percent, 1 percent, and 0.1 percent, respectively. Standard errors are clustered by month. Monetary policy surprises in 2020 are excluded. $TimeTrend$ is a linear time trend equal to the year minus 1996. $NumMeetings$ is the count of central banks holding meetings during the 30-day period before the announcement, which is normalized by subtracting its mean. $TempSwapLine$ is an indicator equal to one during December 2007–February 2010, when the Federal Reserve operated temporary swap line arrangements during the Global Financial Crisis. Other interest rate controls correspond to the controls in regression (5) in Table 6. Asset price controls and all local/US news by zone refer to the controls added in regressions (3) and (5) in Table 7, respectively. Sources: Bloomberg, CME, Consensus Economics, Informa Global Markets, and Refinitiv.