Online Appendix to How Do Central Bank Projections and Forward Guidance Influence Private-Sector Forecasts?

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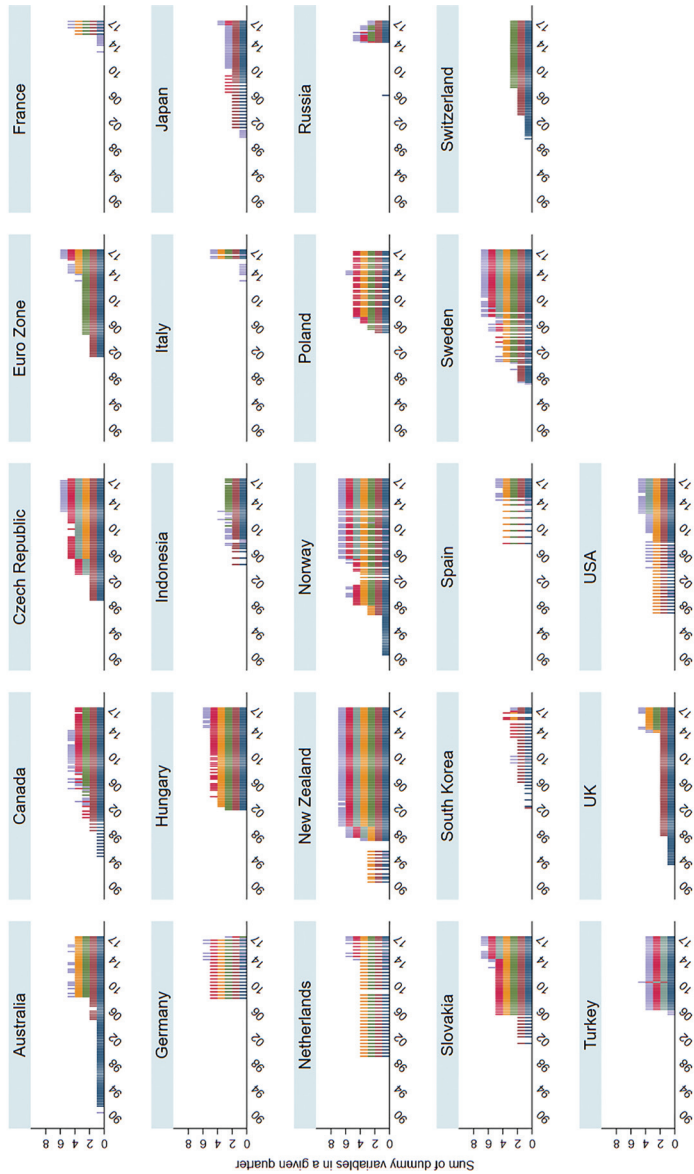
We construct a 23-country panel data set to consider the effect of central bank projections and forward guidance on private-sector forecasts. Despite the strong arguments in the literature in favor of releasing central bank policy rate projections, we find that the provision of these projections neither reduces private-sector forecast dispersion nor forecast error. Further, the policy rate assumption that central banks use in their macroeconomic projections has not appeared to matter much for private-sector forecasts. We also find that forward guidance tends to reduce the dispersion and error of interest rate forecasts but less so for macroeconomic forecasts. This is consistent with the idea in the literature that forward guidance can lower interest rate forecast disagreement without reducing macroeconomic forecast disagreement because forward guidance can be interpreted by forecasters as either Delphic or Odyssean.

JEL Codes: D83, E37, E52, E58.

1. Figures

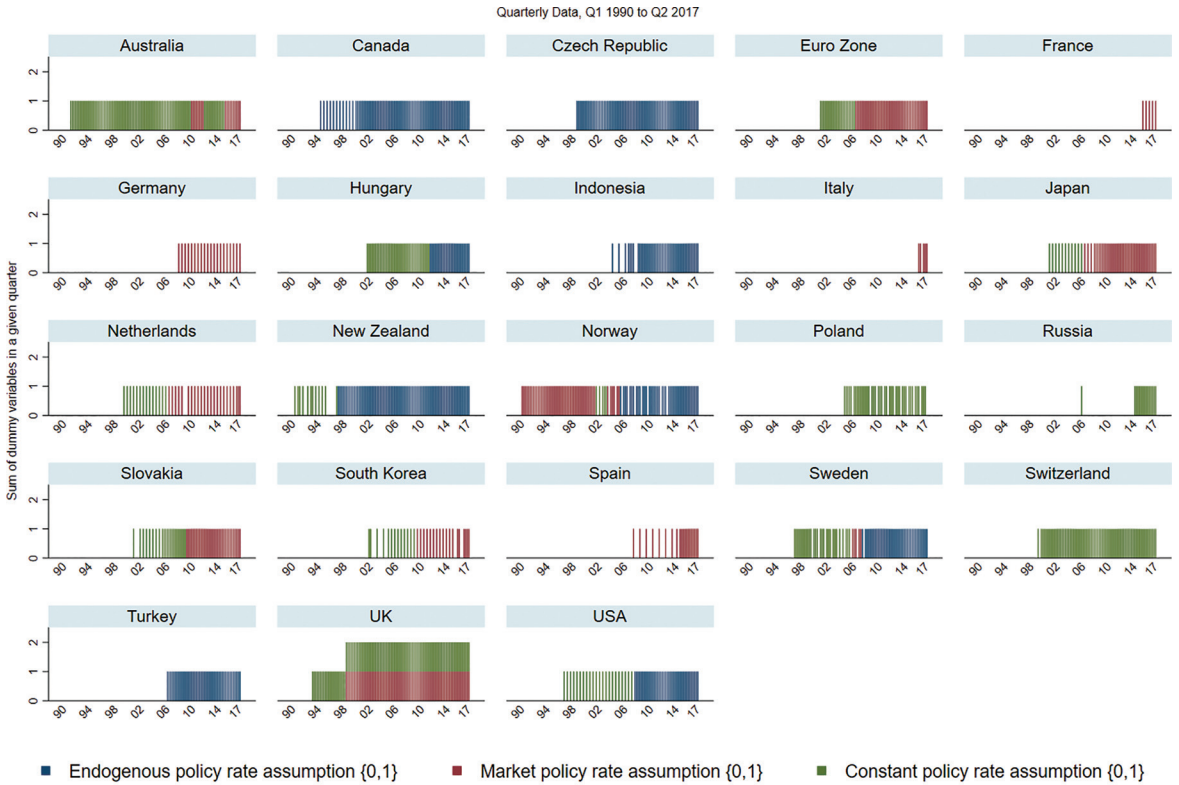
In this section, we present figure A.1 and figure A.2, which were referenced throughout our paper.

Figure A.1. Types of Projections Provided by Central Banks over Time



Notes: Above is a stacked bar chart of $(0, 1)$ dummy variables that represent the availability of a particular type of central bank projection in a particular country in a particular quarter. White space represents the absence of a projection or the absence of forward guidance. The x-axis corresponds to quarterly observations.

Figure A.2. Policy Rate Assumption (PRA) Used to Generate Central Bank Projections



Notes: Above is a stacked bar chart of $(0, 1)$ dummy variables that indicate the type of policy rate assumption used in a central bank's projections in a particular country in a particular quarter. The Bank of England releases two sets of projections—one for each assumption indicated. The Indonesian assumption is a scenario. Key data sources: Hammond (2012) and central bank websites.

2. Subsample Analysis

2.1 The Policy Rate Assumption (PRA) of Central Bank Projections

Many papers have argued that central bank projections that rely on an endogenous policy rate path assumption are more informative than those that use market-implied or constant policy rate path assumptions (e.g., Svensson 2006, Galí 2011, and Woodford 2013). Although there is a lively debate in the literature about this issue, the consensus appears to be that, at a minimum, central banks should make efforts to provide at least some information about their policy rate path assumptions (e.g., Goodhart 2009).

With an endogenous rate path assumption, the public would, in theory, know that the central bank projections account for the likely policy response of that central bank to a given projected macroeconomic variable. Hence, the projection may be more realistic; it may be the central bank's best estimate of the progression of the projected macroeconomic variable. With an exogenous rate path assumption (i.e., a market-implied or constant rate), the assumed policy rate path may differ from the one the central bank would actually take given the projected evolution of the macroeconomic variables. To the extent that the central bank may ultimately deviate from the assumed, exogenous path, and, to the extent that this deviation could affect the projected macroeconomic variables, the central bank's projection may be unrealistic. Accordingly, the projection may be less informative and ultimately increase private-sector forecast dispersion and/or private-sector forecast error. We attempt to test that hypothesis.

First, we recorded the rate path assumptions used by central banks in their projections. The projection rate path assumptions are primarily sourced from Hammond (2012), accurate as of 2012. We must also account for the time-varying nature of these assumptions, as many central banks changed their policy rate assumption over our sample period (1990 to 2017). We augment the data from Hammond (2012) with the central banks' respective monetary policy (inflation) reports and with discussion from Bank for International Settlements (2009), Woodford (2013), and Hubert (2015a, 2015b). We categorize central bank projections into one of three categories:

those that use an endogenous, a market-implied, or a constant policy rate path assumption.[1] We then use these categorizations to sort our benchmark panel regressions into three sample groups.

Tables A.1–A.8 below disaggregate the results from the benchmark results in our paper. In each, columns 1 and 2 show the full-sample results, but columns 3–4, 5–6, and 7–8 split the results by the policy rate path assumption used in the central bank projections (endogenous, market-implied, and constant, respectively). The results below show that the magnitudes of reduction in forecast dispersion and forecast accuracy associated with each type of policy rate assumption—although negative, statistically significant, and economically significant in many cases—are, in general, statistically indiscernible from one another.

Our results are also broadly consistent with results from Knüppel and Schultefrankenfeld (2017). To study this issue, the authors compare the predictive accuracy of Bank of England projections with those of the Banco Central do Brasil and find no statistical difference. From this, the authors conclude that "the choice of the interest rate assumption appears to be of minor relevance empirically." Our results, which are based on a much larger sample group and sample period, are aligned with this conclusion and suggest that the policy rate path assumption may not be so important after all.

As discussed in our paper, central bank inflation projections have tended to reduce both the forecast dispersion and forecast error of private-sector interest rate forecasts. Much of this result appears to be driven by central bank inflation projections that use a constant policy rate assumption (table A.1). Constant policy rate assumptions were more common in earlier years, so central bank inflation projections may have been more influential in the initial stages of their use. Of course, it is also possible that central bank inflation projections are more likely to reduce forecast dispersion and forecast error when they use a constant policy rate assumption (perhaps because they are simpler to interpret). However, this seems less likely because any advantage achieved due to simplicity is likely to be counteracted by the unrealistic nature of the inflation projection, especially in policy rate cutting or hiking cycles.

[1] These categorizations are also used in Sutherland (2020).

Table A.1. Private-Sector Rate Forecasts Split by Projections' Policy Rate Assumption

	3-Month Government Bill Rate Forecast at the 3-Month Forecast Horizon							
	Full Sample		Endogenous Rate		Market Rate		Constant Rate	
	Dispersion (1)	Error (2)	Dispersion (3)	Error (4)	Dispersion (5)	Error (6)	Dispersion (7)	Error (8)
Inflation	-0.20^{**}	-0.28^{*}	0.12	0.02	0.23^{*}	0.38	-0.36^{***}	-0.45^{**}
	(0.09)	(0.14)	(0.15)	(0.16)	(0.11)	(0.45)	(0.06)	(0.20)
Output Gap	-0.14	-0.17	-0.36^{**}	0.20	-0.07	-0.27	-0.19	-0.22
	(0.10)	(0.16)	(0.13)	(0.11)	(0.19)	(0.18)	(0.18)	(0.23)
Unemployment	0.15	0.45^{***}	-0.38^{**}	0.29	-0.21^{**}	0.08	0.26^{***}	0.80^{***}
	(0.09)	(0.14)	(0.13)	(0.16)	(0.08)	(0.47)	(0.08)	(0.20)
Rate Projection	0.21^{*}	-0.01	0.62^{***}	-0.34^{*}	0.63^{***}	0.17	—	—
	(0.11)	(0.23)	(0.13)	(0.15)	(0.16)	(0.28)	—	—
Adjusted R^2	0.42	0.22	0.37	0.30	0.55	0.34	0.40	0.19
N	1,864	1,827	536	519	455	440	842	835

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months. [Endogenous] Rate: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.2. Private-Sector Rate Forecasts Split by Policy Rate Assumption

	3M (12M) Dispersion Full Sample (1)	**3M (12M) Error Full Sample (2)**	**3M (12M) Dispersion Endogenous (3)**	**3M (12M) Error Endogenous (4)**	**3M (12M) Dispersion Market (5)**	**3M (12M) Error Market (6)**	**3M (12M) Dispersion Constant (7)**	**3M (12M) Error Constant (8)**
Inflation	−0.19**	−0.29**	0.11	−0.01	−0.00	0.19	−0.37***	−0.33**
	(0.07)	(0.12)	(0.29)	(0.35)	(0.15)	(0.29)	(0.07)	(0.15)
Output Gap	−0.06	−0.07	−0.06	−0.45	−0.07	−0.08	−0.28*	−0.29
	(0.08)	(0.12)	(0.13)	(0.29)	(0.09)	(0.20)	(0.15)	(0.17)
Unemployment	0.11	0.46***	−0.54***	−0.38	−0.04	0.06	0.41***	0.67***
	(0.08)	(0.16)	(0.12)	(0.28)	(0.15)	(0.32)	(0.10)	(0.16)
Rate Projection	0.19*	−0.13	0.33	0.22	0.58***	0.30	—	—
	(0.11)	(0.22)	(0.21)	(0.42)	(0.14)	(0.27)	(.)	(.)
Adjusted R^2	0.49	0.27	0.46	0.29	0.60	0.39	0.45	0.21
N	1,868	1,761	538	492	457	410	842	823

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (12M) Dispersion: natural logarithm of the interdecile range of *private forecasts* of the 3-month yield in 12 months' time. [Endogenous (e.g.)]: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.3. Private-Sector Rate Forecasts Split by Policy Rate Assumption

	10Y (3M) Dispersion Full Sample (1)	10Y (3M) Error Full Sample (2)	10Y (3M) Dispersion Endogenous (3)	10Y (3M) Error Endogenous (4)	10Y (3M) Dispersion Market (5)	10Y (3M) Error Market (6)	10Y (3M) Dispersion Constant (7)	10Y (3M) Error Constant (8)
Inflation	−0.23***	−0.38*	0.07	−0.27	0.04	0.42	−0.21***	−0.04
	(0.07)	(0.21)	(0.10)	(0.39)	(0.06)	(0.37)	(0.03)	(0.31)
Output Gap	−0.06	0.16	−0.20	0.11	0.08	−0.07	−0.21***	0.68*
	(0.09)	(0.13)	(0.15)	(0.24)	(0.07)	(0.28)	(0.05)	(0.33)
Unemployment	0.19**	0.18	−0.35	−0.09	−0.10	0.36	0.13**	−0.01
	(0.08)	(0.18)	(0.29)	(0.64)	(0.09)	(0.25)	(0.05)	(0.19)
Rate Projection	0.06	−0.09	0.47**	0.58	0.08	0.86	—	—
	(0.08)	(0.17)	(0.14)	(0.59)	(0.19)	(0.65)	(.)	(.)
Adjusted R^2	0.27	0.30	0.31	0.34	0.22	0.17	0.33	0.40
N	1,536	1,505	392	380	425	408	669	665

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 10Y (3M) Dispersion: natural logarithm of the interdecile range of *private forecasts* of the 10-year yield in three months' time. [Endogenous (e.g.)]: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.4. Private-Sector Rate Forecasts Split by Policy Rate Assumption

	10Y (12M) Dispersion Full Sample (1)	**10Y (12M) Error Full Sample (2)**	**10Y (12M) Dispersion Endogenous (3)**	**10Y (12M) Error Endogenous (4)**	**10Y (12M) Dispersion Market (5)**	**10Y (12M) Error Market (6)**	**10Y (12M) Dispersion Constant (7)**	**10Y (12M) Error Constant (8)**
Inflation	−0.10	−0.23	0.11	−0.05	0.06	−0.22	0.00	−0.14
	(0.07)	(0.16)	(0.11)	(0.36)	(0.13)	(0.34)	(0.06)	(0.16)
Output Gap	−0.06	0.05	−0.08	0.04	0.00	0.05	−0.20**	0.22
	(0.05)	(0.09)	(0.10)	(0.08)	(0.06)	(0.21)	(0.07)	(0.17)
Unemployment	0.15*	0.20	−0.47**	−0.02	−0.05	0.06	0.10*	−0.07
	(0.08)	(0.16)	(0.13)	(0.78)	(0.12)	(0.28)	(0.05)	(0.16)
Rate Projection	0.15	0.07	0.62***	0.52*	0.41	0.41	—	—
	(0.09)	(0.16)	(0.13)	(0.25)	(0.26)	(0.47)	(.)	(.)
Adjusted R^2	0.25	0.40	0.36	0.40	0.08	0.42	0.21	0.46
N	1,536	1,457	392	362	425	381	669	659

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 10Y (12M) Dispersion: natural logarithm of the interdecile range of *private forecasts* of the 10-year yield in 12 months' time. [Endogenous (e.g.)]: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.5. Private-Sector Inflation Forecasts Split by Projections' Policy Rate Assumption

	Inflation Rate Forecast for the Current Year							
	Full Sample		Endogenous Rate		Market Rate		Constant Rate	
	Dispersion (1)	Error (2)	Dispersion (3)	Error (4)	Dispersion (5)	Error (6)	Dispersion (7)	Error (8)
Inflation	−0.14	−0.08	0.01	0.26	−0.01	0.08	−0.00	−0.21
	(0.11)	(0.13)	(0.23)	(0.24)	(0.12)	(0.34)	(0.16)	(0.19)
Output Gap	−0.13	−0.23	0.19	−0.16	−0.10	−0.28	−0.21	−0.37*
	(0.11)	(0.15)	(0.11)	(0.18)	(0.07)	(0.18)	(0.23)	(0.18)
Unemployment	0.03	0.12	0.11	−0.29	0.06	0.08	−0.10	0.42***
	(0.15)	(0.17)	(0.40)	(0.56)	(0.07)	(0.34)	(0.21)	(0.13)
Rate Projection	−0.28	−0.37	−0.52	−0.43	0.10	0.28	—	—
	(0.22)	(0.32)	(0.38)	(0.38)	(0.10)	(0.35)	—	—
Adjusted R^2	0.28	0.24	0.64	0.34	0.68	0.28	0.15	0.17
N	2,070	2,026	592	575	504	475	928	919

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural log of the interdecile range of *private forecasts,* CPI current year (CY). [Endogenous Rate]: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection.*

Table A.6. Private-Sector Inflation Forecasts Split by Policy Rate Assumption

	CPI (NY) Dispersion Full Sample (1)	CPI (NY) Error Full Sample (2)	CPI (NY) Dispersion Endogenous (3)	CPI (NY) Error Endogenous (4)	CPI (NY) Dispersion Market (5)	CPI (NY) Error Market (6)	CPI (NY) Dispersion Constant (7)	CPI (NY) Error Constant (8)
Inflation	−0.11	−0.36*	0.02	−1.01**	0.03	−0.52**	−0.07	−0.10
	(0.09)	(0.18)	(0.20)	(0.43)	(0.06)	(0.22)	(0.10)	(0.22)
Output Gap	−0.16	0.04	0.02	−0.12	−0.04	0.29	−0.12	−0.30
	(0.10)	(0.16)	(0.11)	(0.34)	(0.07)	(0.19)	(0.15)	(0.24)
Unemployment	0.06	0.22	0.22	−0.36	0.01	0.27*	0.03	0.05
	(0.13)	(0.20)	(0.37)	(0.34)	(0.07)	(0.13)	(0.11)	(0.15)
Rate Projection	−0.19	−0.47	−0.41	0.17	−0.32***	−0.19	—	—
	(0.20)	(0.29)	(0.31)	(0.53)	(0.04)	(0.24)	(.)	(.)
Adjusted R^2	0.25	0.17	0.51	0.19	0.33	0.37	0.26	0.14
N	2,079	1,934	593	539	504	431	931	903

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (NY) Dispersion: natural logarithm of the interdecile range of *private forecasts* of CPI for the next year (NY). [Endogenous (e.g.)]: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.7. Private-Sector GDP Forecasts Split by Policy Rate Assumption

	GDP (CY) Dispersion Full Sample (1)	GDP (CY) Error Full Sample (2)	GDP (CY) Dispersion Endogenous (3)	GDP (CY) Error Endogenous (4)	GDP (CY) Dispersion Market (5)	GDP (CY) Error Market (6)	GDP (CY) Dispersion Constant (7)	GDP (CY) Error Constant (8)
Inflation	−0.10*	−0.26*	−0.15	−0.26	0.04	−0.30	−0.04	−0.16
	(0.05)	(0.15)	(0.10)	(0.21)	(0.06)	(0.19)	(0.04)	(0.15)
Output Gap	−0.03	0.19	−0.07	0.05	−0.18**	−0.08	−0.02	0.06
	(0.05)	(0.12)	(0.09)	(0.15)	(0.07)	(0.15)	(0.08)	(0.31)
Unemployment	0.19***	0.13	0.03	−1.18**	0.13**	0.35*	0.15*	0.26
	(0.05)	(0.15)	(0.08)	(0.46)	(0.05)	(0.19)	(0.08)	(0.25)
Rate Projection	−0.07	−0.18	0.11	0.97*	−0.13	−0.41	—	—
	(0.07)	(0.18)	(0.14)	(0.43)	(0.12)	(0.27)	(.)	(.)
Adjusted R^2	0.55	0.16	0.57	0.26	0.69	0.17	0.53	0.09
N	1,971	1,929	588	571	504	483	833	827

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: GDP (CY) Dispersion: natural logarithm of the interdecile range of *private forecasts* of GDP for the current year (CY). [Endogenous (e.g.)]: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.8. Private-Sector GDP Forecasts Split by Policy Rate Assumption

	GDP (NY) Dispersion Full Sample (1)	GDP (NY) Error Full Sample (2)	GDP (NY) Dispersion Endogenous (3)	GDP (NY) Error Endogenous (4)	GDP (NY) Dispersion Market (5)	GDP (NY) Error Market (6)	GDP (NY) Dispersion Constant (7)	GDP (NY) Error Constant (8)
Inflation	−0.11**	−0.16	0.08*	0.05	−0.00	0.32	−0.09*	−0.12
	(0.05)	(0.14)	(0.04)	(0.45)	(0.05)	(0.27)	(0.05)	(0.17)
Output Gap	−0.07	0.02	−0.10	0.21	−0.07	−0.49	−0.08	0.22
	(0.05)	(0.17)	(0.09)	(0.18)	(0.08)	(0.32)	(0.07)	(0.28)
Unemployment	0.06	0.37**	0.03	0.28	0.08	−0.03	0.00	0.26
	(0.06)	(0.14)	(0.11)	(0.22)	(0.09)	(0.27)	(0.06)	(0.18)
Rate Projection	−0.00	0.11	0.01	0.55*	−0.07	−0.86**	—	—
	(0.07)	(0.26)	(0.13)	(0.24)	(0.12)	(0.35)	(.)	(.)
Adjusted R^2	0.29	0.22	0.34	0.18	0.48	0.44	0.29	0.18
N	1,971	1,841	588	535	504	439	833	815

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: GDP (NY) Dispersion: natural logarithm of the interdecile range of *private forecasts* of GDP for the next year (NY). [Endogenous (e.g.)]: central bank projections produced using an [endogenous] policy rate assumption. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

2.2 The Source of Central Bank Projections

The *source* of central bank projections may also be important to private-sector forecasters. Projections provided by monetary policy decisionmakers may be judged to have greater monetary policy signal content (Romer and Romer 2000 and Ellison and Sargent 2012). Alternatively, committee-provided projections may be perceived as less accurate than staff-produced forecasts (Romer and Romer 2008). At the same time, projections provided by monetary policy decisionmakers may be seen as biased (Romer and Romer 2008 and Ellison and Sargent 2012). One reason is that policymakers may have different information sets and heterogeneous preferences, as outlined in Hansen, McMahon, and Rivera (2014).

To test some of these hypotheses, we gathered data on projection source from Hammond (2012), the central banks' respective monetary policy (inflation) reports, and discussion from Bank for International Settlements (2009), Woodford (2013), and Hubert (2015a). We categorized central bank projections into one of three types: committee provided (i.e., monetary policy decisionmakers), staff provided, or, more generally, central bank provided. We then use these to sort our benchmark panel regressions into two groups: (i) monetary policy committee projections or (ii) central bank projections (i.e., staff projections or those from the central bank).

Similar to the results discussed above, we find that projections provided by monetary policy decisionmakers do not have any greater impact than those provided by the staff or the central bank more generally. These results are shown below. What might explain these results? One interpretation is that projections are already a source of noisy information (Sims 2003). The macroeconomic projection, regardless of rate path assumption, is still the central bank's published projection. The difference in projection source or rate path assumption may simply make an already noisy signal only slightly more or less noisy.[2] The overall value of central bank projections as monetary policy signals may remain intact regardless of the policy rate path assumption or projection source.

[2] "Since people are unlikely to have loss functions that make minor deviations of forecast from actual interest rates important to them, they are unlikely to focus narrow attention on interest rate point forecasts when these are just one part of a richer presentation of information" (Sims 2010, page 176).

Our results are also broadly consistent with recent findings from Knüppel and Schultefrankenfeld (2017). To study this issue, the authors compare the predictive accuracy of Bank of England projections with those of the Banco Central do Brasil and find no statistical difference. From this, the authors conclude that "the choice of the interest rate assumption appears to be of minor relevance empirically." Our results, which are based on a much larger sample group and sample period, are aligned with this conclusion and suggest that both the policy rate path assumption and the projection source may not be so important after all.

Table A.9. Private-Sector Rate Forecasts Split by Projection Source

	3M (3M) Staff or CB Dispersion (1)	3M (3M) Staff or CB Error (2)	3M (12M) Staff or CB Dispersion (3)	3M (12M) Staff or CB Error (4)	3M (3M) MPC Dispersion (5)	3M (3M) MPC Error (6)	3M (12M) MPC Dispersion (7)	3M (12M) MPC Error (8)
Inflation	−0.02	−0.04	−0.08	0.09	0.00	−0.27	−0.04	−0.32
	(0.09)	(0.28)	(0.09)	(0.15)	(0.08)	(0.17)	(0.13)	(0.23)
Output Gap	−0.23	−0.43	−0.20*	−0.40**	−0.08	−0.00	0.02	−0.24**
	(0.15)	(0.26)	(0.11)	(0.16)	(0.16)	(0.28)	(0.13)	(0.10)
Unemployment	0.00	0.37	0.01	0.15	0.18	0.36	0.28*	0.40*
	(0.08)	(0.25)	(0.08)	(0.16)	(0.11)	(0.30)	(0.14)	(0.18)
Rate Projection	0.38**	−0.16	0.19	−0.22	0.19	0.30	0.24	0.27
	(0.16)	(0.30)	(0.20)	(0.24)	(0.22)	(0.25)	(0.16)	(0.36)
Adjusted R^2	0.57	0.24	0.64	0.32	0.33	0.26	0.41	0.26
N	873	852	873	816	883	867	887	837

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation 1: central bank projections provided by either staff/central bank (CB) or a Monetary Policy Committee (MPC). Column interpretation 2: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.10. Private-Sector 10-Year Bond Yield Forecasts Split by Projection Source

	10Y (3M) Staff or CB Dispersion (1)	**10Y (3M) Staff or CB Error (2)**	**10Y (12M) Staff or CB Dispersion (3)**	**10Y (12M) Staff or CB Error (4)**	**10Y (3M) MPC Dispersion (5)**	**10Y (3M) MPC Error (6)**	**10Y (12M) MPC Dispersion (7)**	**10Y (12M) MPC Error (8)**
Inflation	0.10	0.76^{***}	0.18	−0.19	−0.12	-0.53^{**}	−0.09	-0.30^{*}
	(0.18)	(0.13)	(0.10)	(0.17)	(0.07)	(0.23)	(0.08)	(0.15)
Output Gap	−0.05	-0.34^{*}	−0.09	−0.07	-0.15^{*}	0.17	-0.11^{*}	0.09
	(0.11)	(0.14)	(0.06)	(0.13)	(0.08)	(0.24)	(0.05)	(0.17)
Unemployment	−0.12	-0.53^{***}	−0.12	0.23	0.06	0.35	0.16^{*}	0.28
	(0.18)	(0.14)	(0.10)	(0.24)	(0.08)	(0.23)	(0.09)	(0.34)
Rate Projection	—	—	—	—	0.30^{***}	0.06	0.30^{**}	0.03
	(.)	(.)	(.)	(.)	(0.08)	(0.30)	(0.10)	(0.27)
Adjusted R^2	0.38	0.42	0.33	0.45	0.33	0.30	0.32	0.37
N	565	552	565	531	844	826	844	799

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation 1: central bank projections provided by either staff/central bank (CB) or a Monetary Policy Committee (MPC). Column interpretation 2: 10Y (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the 10-year yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.11. Private-Sector Inflation Forecasts Split by Projection Source

	CPI (CY) Staff or CB Dispersion (1)	CPI (CY) Staff or CB Error (2)	CPI (NY) Staff or CB Dispersion (3)	CPI (NY) Staff or CB Error (4)	CPI (CY) MPC Dispersion (5)	CPI (CY) MPC Error (6)	CPI (NY) MPC Dispersion (7)	CPI (NY) MPC Error (8)
Inflation	0.10	−0.08	0.08	0.06	−0.28	−0.31	−0.19	−0.33
	(0.08)	(0.29)	(0.08)	(0.15)	(0.20)	(0.17)	(0.14)	(0.21)
Output Gap	−0.09	−0.45	−0.03	−0.41**	−0.08	−0.02	−0.21	−0.25*
	(0.08)	(0.26)	(0.09)	(0.15)	(0.15)	(0.28)	(0.12)	(0.12)
Unemployment	−0.14*	0.40	−0.12*	0.18	0.35*	0.36	0.42**	0.34*
	(0.07)	(0.26)	(0.07)	(0.17)	(0.18)	(0.30)	(0.17)	(0.18)
Rate Projection	−0.21*	−0.17	−0.14	−0.23	−0.27	0.28	−0.19	0.20
	(0.11)	(0.28)	(0.25)	(0.26)	(0.25)	(0.26)	(0.26)	(0.34)
Adjusted R^2	0.56	0.23	0.36	0.32	0.22	0.26	0.36	0.25
N	1,007	853	1,008	818	940	873	943	852

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation 1: central bank projections provided by either staff/central bank (CB) or a Monetary Policy Committee (MPC). Column interpretation 2: CPI (CY) Dispersion: natural log of the interdecile range of *private forecasts* of current-year inflation. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

Table A.12. Private-Sector Output Forecasts Split by Projection Source

	GDP (CY) Staff or CB Dispersion (1)	GDP (CY) Staff or CB Error (2)	GDP (NY) Staff or CB Dispersion (3)	GDP (NY) Staff or CB Error (4)	GDP (CY) MPC Dispersion (5)	GDP (CY) MPC Error (6)	GDP (NY) MPC Dispersion (7)	GDP (NY) MPC Error (8)
Inflation	0.00	0.74***	−0.00	−0.19	−0.10	−0.52*	−0.06	−0.31*
	(0.05)	(0.11)	(0.08)	(0.16)	(0.06)	(0.26)	(0.04)	(0.15)
Output Gap	−0.06	−0.31*	−0.06	−0.16	0.01	0.19	−0.10**	0.10
	(0.07)	(0.15)	(0.08)	(0.18)	(0.05)	(0.25)	(0.04)	(0.17)
Unemployment	0.09	−0.52***	−0.01	0.25	0.13	0.26	−0.00	0.27
	(0.06)	(0.14)	(0.06)	(0.25)	(0.11)	(0.19)	(0.07)	(0.35)
Rate Projection	−0.06	0.00	−0.04	0.00	0.02	−0.00	0.11	0.02
	(0.07)	(.)	(0.08)	(.)	(0.11)	(0.28)	(0.07)	(0.26)
Adjusted R^2	0.58	0.42	0.37	0.46	0.56	0.31	0.34	0.37
N	931	553	931	533	917	809	917	788

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation 1: central bank projections provided by either staff/central bank (CB) or a Monetary Policy Committee (MPC). Column interpretation 2: GDP (CY) Dispersion: natural log of the interdecile range of *private forecasts* of current-year output. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*.

2.3 Subsample Analysis (Pre- and Post-2006)

In this section, we reestimate our benchmark model using two subsamples: pre-2006 and post-2006 (inclusive).

Table A.13. Private-Sector Rate Forecasts: Pre-2006 Subsample

	3M (3M) Dispersion (1)	**3M (3M) Error (2)**	**3M (12M) Dispersion (3)**	**3M (12M) Error (4)**	**10Y (3M) Dispersion (5)**	**10Y (3M) Error (6)**	**10Y (12M) Dispersion (7)**	**10Y (12M) Error (8)**
Inflation	−0.16	−0.39*	−0.17	−0.23	−0.16	−0.19	−0.02	−0.07
	(0.10)	(0.19)	(0.13)	(0.15)	(0.09)	(0.21)	(0.08)	(0.17)
Output Gap	0.17	0.26	−0.08	0.20	0.10	−0.21	−0.09	−0.02
	(0.11)	(0.22)	(0.10)	(0.14)	(0.06)	(0.16)	(0.09)	(0.12)
Unemployment	0.08	0.91***	0.14	0.65**	0.07	0.06	0.09	−0.22
	(0.09)	(0.17)	(0.13)	(0.24)	(0.11)	(0.19)	(0.09)	(0.20)
Rate Projection	−0.32**	−0.70***	−0.14	−0.85*	−0.16	−0.23	0.12	0.46**
	(0.13)	(0.20)	(0.17)	(0.45)	(0.09)	(0.27)	(0.25)	(0.17)
FG Time Contingent	0.19**	0.10	−0.04	0.69***	0.06	−0.13	−0.04	−0.16*
	(0.08)	(0.08)	(0.07)	(0.18)	(0.10)	(0.11)	(0.08)	(0.08)
FG Qualitative	0.01	−0.04	0.02	−0.04	0.05	−0.04	−0.05	0.21
	(0.09)	(0.12)	(0.08)	(0.17)	(0.10)	(0.11)	(0.07)	(0.22)
FG State Contingent	−0.14*	−0.40***	−0.24***	0.35**	−0.13**	0.39***	−0.14**	0.14
	(0.08)	(0.11)	(0.06)	(0.14)	(0.05)	(0.10)	(0.07)	(0.15)
Quantitative Easing	−0.90***	0.95*	−1.38***	1.20***	−0.10	−0.42	−0.18*	−0.43
	(0.14)	(0.49)	(0.16)	(0.38)	(0.12)	(0.36)	(0.09)	(0.25)
Adjusted R^2	0.31	0.14	0.35	0.21	0.24	0.36	0.21	0.44
N	902	903	902	903	801	801	801	801

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*, forward guidance, or QE.

Table A.14. Private-Sector Macro Forecasts: Pre-2006

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	−0.18*	−0.12	−0.15	−0.21	−0.02	−0.15	−0.06	−0.13
	(0.10)	(0.16)	(0.12)	(0.17)	(0.05)	(0.14)	(0.04)	(0.22)
Output Gap	0.04	0.33	−0.06	0.30	−0.01	0.21	0.09	0.25
	(0.16)	(0.23)	(0.20)	(0.19)	(0.07)	(0.15)	(0.09)	(0.19)
Unemployment	0.07	0.04	0.14	0.12	0.10	0.13	−0.07	0.31
	(0.10)	(0.18)	(0.17)	(0.25)	(0.12)	(0.24)	(0.07)	(0.22)
Rate Projection	−0.04	−0.29	0.09	−0.45	−0.21***	−0.38	−0.21*	0.44
	(0.29)	(0.27)	(0.25)	(0.32)	(0.06)	(0.53)	(0.12)	(0.45)
FG Time Contingent	−0.13	−0.54***	−0.26***	−0.25	0.09	0.39**	0.15	−0.02
	(0.23)	(0.16)	(0.08)	(0.20)	(0.07)	(0.19)	(0.09)	(0.27)
FG Qualitative	0.25	0.24	0.12	0.28	−0.02	0.03	−0.06	−0.12
	(0.15)	(0.20)	(0.10)	(0.32)	(0.05)	(0.23)	(0.05)	(0.17)
FG State Contingent	−0.42	−0.54**	−0.11	0.41*	0.01	−0.60***	−0.03	0.34*
	(0.25)	(0.19)	(0.21)	(0.20)	(0.05)	(0.17)	(0.06)	(0.17)
Quantitative Easing	2.45	0.81***	0.06	0.21	0.21***	0.18	−0.03	−1.07***
	(1.46)	(0.18)	(0.15)	(0.34)	(0.07)	(0.20)	(0.08)	(0.25)
Adjusted R^2	0.22	0.22	0.20	0.13	0.46	0.07	0.17	0.12
N	1,013	1,022	1,022	1,022	961	961	961	961

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural log of the interdecile range of *private forecasts* of CPI, current year (CY). Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*, forward guidance, or QE.

Table A.15. Private-Sector Rate Forecasts: Pre-2006 Subsample

	3M (3M) Dispersion (1)	**3M (3M) Error (2)**	**3M (12M) Dispersion (3)**	**3M (12M) Error (4)**	**10Y (3M) Dispersion (5)**	**10Y (3M) Error (6)**	**10Y (12M) Dispersion (7)**	**10Y (12M) Error (8)**
Inflation	0.01	0.05	−0.05	−0.07	0.04	−0.22	0.11	−0.43*
	(0.13)	(0.27)	(0.14)	(0.25)	(0.07)	(0.28)	(0.08)	(0.22)
Output Gap	−0.04	−0.00	0.06	−0.09	−0.06	0.23	−0.05	0.15
	(0.14)	(0.14)	(0.10)	(0.13)	(0.07)	(0.27)	(0.05)	(0.19)
Unemployment	−0.04	0.18	−0.01	0.23	−0.04	0.13	−0.06	0.46*
	(0.13)	(0.32)	(0.11)	(0.25)	(0.09)	(0.27)	(0.07)	(0.22)
Rate Projection	0.27	0.41	0.34***	0.53**	0.01	0.01	0.15***	−0.21
	(0.23)	(0.25)	(0.11)	(0.22)	(0.09)	(0.49)	(0.05)	(0.43)
FG Time Contingent	−0.26	0.07	−0.23	0.24	−0.11	−0.01	−0.16	0.10
	(0.17)	(0.24)	(0.16)	(0.34)	(0.06)	(0.18)	(0.09)	(0.25)
FG Qualitative	−0.10	−0.04	−0.20***	−0.08	−0.02	0.09	0.02	−0.01
	(0.12)	(0.09)	(0.07)	(0.11)	(0.05)	(0.08)	(0.04)	(0.10)
FG State Contingent	0.12	0.35	0.08	−0.34	−0.02	0.01	−0.08	0.06
	(0.17)	(0.22)	(0.09)	(0.23)	(0.07)	(0.20)	(0.05)	(0.18)
Quantitative Easing	−0.31	0.04	−0.27*	0.34	−0.04	0.04	0.03	−0.20
	(0.23)	(0.32)	(0.14)	(0.27)	(0.09)	(0.13)	(0.05)	(0.14)
Adjusted R^2	0.38	0.25	0.45	0.30	0.23	0.22	0.15	0.35
N	962	924	966	858	735	704	735	656

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*, forward guidance, or QE.

Table A.16. Private-Sector Macro Forecasts: Post-2006

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	0.14	0.24	0.04	−0.42**	0.04	−0.08	0.01	0.35*
	(0.09)	(0.19)	(0.06)	(0.19)	(0.05)	(0.16)	(0.05)	(0.17)
Output Gap	−0.04	−0.30**	0.03	0.31*	−0.05	−0.05	−0.02	−0.15
	(0.05)	(0.12)	(0.06)	(0.17)	(0.07)	(0.16)	(0.05)	(0.21)
Unemployment	−0.10	−0.03	−0.01	0.38*	0.06	0.01	0.02	−0.23
	(0.07)	(0.20)	(0.05)	(0.21)	(0.04)	(0.18)	(0.07)	(0.19)
Rate Projection	−0.24**	−0.13	−0.34***	−0.22	−0.13*	−0.38	−0.08	−0.06
	(0.10)	(0.37)	(0.07)	(0.28)	(0.07)	(0.26)	(0.11)	(0.50)
FG Time Contingent	−0.13*	−0.16	−0.12	−0.10	−0.01	0.11	−0.09	−0.19
	(0.07)	(0.18)	(0.08)	(0.27)	(0.10)	(0.28)	(0.06)	(0.23)
FG Qualitative	−0.01	−0.02	−0.00	−0.01	−0.03	0.11	−0.04	−0.13
	(0.03)	(0.08)	(0.03)	(0.14)	(0.04)	(0.12)	(0.04)	(0.10)
FG State Contingent	0.00	0.10	0.01	−0.22	0.01	0.42**	−0.09	−0.17
	(0.06)	(0.11)	(0.05)	(0.23)	(0.06)	(0.18)	(0.07)	(0.27)
Quantitative Easing	0.04	0.12	0.08	−0.27	0.07	−0.17	0.06	−0.54
	(0.06)	(0.22)	(0.07)	(0.21)	(0.06)	(0.19)	(0.06)	(0.32)
Adjusted R^2	0.63	0.24	0.25	0.23	0.62	0.18	0.41	0.35
N	1,057	1,004	1,057	912	1,010	968	1,010	880

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural log of the interdecile range of *private forecasts* of CPI, current year (CY). Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection*, forward guidance, or QE.

2.4 Regional Analysis

In this section, we reestimate our benchmark model using regional subsamples. We split our 23 sample countries into three subsamples: a sample group that excludes the euro-area countries (Germany, France, Italy, Spain, Netherlands, Slovakia, and the euro area) in table A.17 and table A.18; advanced economies (Australia, Canada, Japan, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States) in table A.19 and table A.20; and emerging market economies (Czech Republic, Hungary, Poland, Indonesia, Russia, South Korea, and Slovakia (*Slovakia was outside the euro area for most of the sample period*), and Turkey) in table A.21 and table A.22. We also rerun our benchmark regressions, excluding only the euro area, to demonstrate that our results are robust to the inclusion of this one additional region (see table A.23 and table A.24). Despite some heterogeneity in the results by region, the regional subsample results are still broadly consistent with our main results.

Part of the motivation for the regressions that exclude euro-area countries and the euro area is the complicated matter of which central bank projections matter more for private-sector *interest rate forecasts*? On the one hand, the European Central Bank sets monetary policy for the euro area, which is based on euro-area projections and which obviously influences domestic interest rates. This interpretation favors using the euro-area projections for the private-sector forecasts of interest rates in euro-area countries. On the other hand, each euro-area country still has domestic interest rates, that is, domestic treasury bills and treasury bonds (or their equivalent), which are also influenced by the domestic economy. This interpretation favors using the domestic national central bank projections for private-sector forecasts of interest rates in for the euro-area countries.

A further complicating factor is that our sample period is 1990 to 2017, but the euro area was only established in 1999. So for the period before 1999, the natural choice is to use the national central banks' projections for all private-sector forecasts. So, then, should we switch to using the euro-area projections for the euro-area countries after 1999 but only for private-sector interest rate forecasts and not for private-sector output and inflation forecasts? Perhaps, but we

opted for the far simpler and far more consistent approach of using the national central bank projections for the national central banks for all countries in all periods. Naturally, there is a drawback to this approach, which is highlighted above, but as we show below, our results are robust to the omission of either the euro-area countries and the euro area or to the omission of only the euro area.

Table A.17. Private-Sector Rate Forecasts: Forecast Dispersion and Forecast Error (excluding euro-area countries)

	3M (3M) Dispersion (1)	3M (3M) Error (2)	3M (12M) Dispersion (3)	3M (12M) Error (4)	10Y (3M) Dispersion (5)	10Y (3M) Error (6)	10Y (12M) Dispersion (7)	10Y (12M) Error (8)
Inflation	−0.18*	−0.33**	−0.11	−0.28**	−0.21***	−0.36*	−0.07	−0.29*
	(0.08)	(0.12)	(0.09)	(0.12)	(0.05)	(0.19)	(0.04)	(0.15)
Output Gap	−0.12	−0.06	−0.07	−0.18	−0.08	0.22	−0.08	0.11
	(0.12)	(0.14)	(0.11)	(0.18)	(0.09)	(0.18)	(0.05)	(0.13)
Unemployment	0.17	0.33*	0.07	0.39*	0.15*	0.17	0.13**	0.22
	(0.11)	(0.16)	(0.10)	(0.21)	(0.07)	(0.17)	(0.05)	(0.20)
Rate Projection	0.20	0.11	0.21	−0.09	0.18*	0.08	0.26**	0.00
	(0.15)	(0.27)	(0.13)	(0.32)	(0.09)	(0.20)	(0.10)	(0.22)
FG Time Contingent	−0.14	0.05	−0.20	0.28	0.01	−0.00	−0.14	0.10
	(0.15)	(0.20)	(0.12)	(0.31)	(0.07)	(0.22)	(0.10)	(0.10)
FG Qualitative	−0.01	−0.06	−0.02	−0.10	0.01	−0.07	0.01	0.02
	(0.09)	(0.08)	(0.06)	(0.10)	(0.04)	(0.07)	(0.05)	(0.09)
FG State Contingent	0.21	0.17	0.03	−0.30	−0.10	0.23	−0.14**	0.16
	(0.16)	(0.18)	(0.15)	(0.18)	(0.06)	(0.14)	(0.06)	(0.10)
Quantitative Easing	−0.26	−0.22	−0.38	0.25	0.09	0.05	0.04	0.04
	(0.27)	(0.46)	(0.31)	(0.33)	(0.10)	(0.13)	(0.08)	(0.13)
Adjusted R^2	0.37	0.23	0.42	0.22	0.31	0.28	0.31	0.38
N	1311	1,284	1,315	1,236	1,039	1,018	1,039	985

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the availability of a type of *central bank projection* or forward guidance.

Table A.18. Private-Sector Macro Forecasts: Forecast Dispersion and Absolute Forecast Error (excluding euro-area countries)

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	−0.11	−0.12	−0.11	−0.37*	−0.09	−0.08	−0.08**	−0.16
	(0.11)	(0.16)	(0.09)	(0.18)	(0.05)	(0.13)	(0.04)	(0.16)
Output Gap	−0.08	−0.16	−0.11	−0.02	0.00	0.13	−0.06	0.06
	(0.14)	(0.15)	(0.11)	(0.20)	(0.06)	(0.12)	(0.05)	(0.20)
Unemployment	0.02	0.07	0.07	0.17	0.17**	0.06	0.01	0.37*
	(0.16)	(0.17)	(0.13)	(0.19)	(0.07)	(0.17)	(0.05)	(0.18)
Rate Projection	−0.21	−0.47	−0.08	−0.37	−0.04	0.05	0.10	0.28
	(0.26)	(0.35)	(0.23)	(0.35)	(0.10)	(0.20)	(0.08)	(0.24)
FG Time Contingent	0.20	0.10	0.16	0.20	0.08	0.09	0.01	−0.26
	(0.14)	(0.16)	(0.14)	(0.23)	(0.09)	(0.25)	(0.07)	(0.19)
FG Qualitative	−0.01	0.02	0.04	0.03	0.00	0.09	−0.02	−0.07
	(0.07)	(0.11)	(0.05)	(0.12)	(0.04)	(0.07)	(0.04)	(0.11)
FG State Contingent	−0.05	−0.14	−0.06	−0.18	−0.04	0.25	−0.13	−0.00
	(0.12)	(0.15)	(0.09)	(0.14)	(0.04)	(0.24)	(0.08)	(0.15)
Quantitative Easing	0.47**	0.25	0.29**	−0.20	0.07	0.16	0.15**	−0.34*
	(0.18)	(0.20)	(0.10)	(0.31)	(0.10)	(0.16)	(0.07)	(0.19)
Adjusted R^2	0.26	0.22	0.28	0.14	0.56	0.15	0.33	0.22
N	1,501	1,463	1,504	1,395	1,401	1,371	1,401	1,307

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural logarithm of the interdecile range of *private forecasts* of CPI for the current year (CY). Row interpretation: rows correspond to binary variables indicating the availability of a type of *central bank projection* or forward guidance.

Table A.19. Private-Sector Rate Forecasts: Forecast Dispersion and Absolute Forecast Error (advanced economies only)

	3M (3M) Dispersion (1)	3M (3M) Error (2)	3M (12M) Dispersion (3)	3M (12M) Error (4)	10Y (3M) Dispersion (5)	10Y (3M) Error (6)	10Y (12M) Dispersion (7)	10Y (12M) Error (8)
Inflation	−0.13*	−0.26**	−0.05	−0.38**	−0.19**	−0.46**	−0.08	−0.21
	(0.07)	(0.09)	(0.09)	(0.12)	(0.06)	(0.17)	(0.05)	(0.12)
Output Gap	−0.09	−0.02	0.03	−0.15	−0.16**	0.27	−0.11***	0.06
	(0.17)	(0.29)	(0.12)	(0.14)	(0.05)	(0.16)	(0.02)	(0.18)
Unemployment	0.25*	0.33	0.24**	0.32*	0.10	0.12	0.15**	0.05
	(0.13)	(0.22)	(0.09)	(0.15)	(0.07)	(0.17)	(0.06)	(0.12)
Rate Projection	0.06	0.43*	0.18	0.16	0.22**	−0.20	0.24**	−0.11
	(0.24)	(0.23)	(0.18)	(0.34)	(0.08)	(0.12)	(0.07)	(0.26)
FG Time Contingent	−0.04	−0.09	−0.25*	0.28	−0.00	0.03	−0.14	0.10
	(0.13)	(0.19)	(0.13)	(0.38)	(0.06)	(0.20)	(0.08)	(0.11)
FG Qualitative	0.02	−0.10	−0.03	−0.19	−0.02	−0.14*	−0.05	−0.07
	(0.09)	(0.09)	(0.07)	(0.16)	(0.03)	(0.07)	(0.04)	(0.10)
FG State Contingent	0.08	0.21	−0.00	−0.02	−0.12	0.12	−0.16**	0.13
	(0.17)	(0.21)	(0.19)	(0.21)	(0.06)	(0.11)	(0.05)	(0.07)
Quantitative Easing	−0.40	0.02	−0.46	0.26	0.06	−0.10	0.01	−0.09
	(0.27)	(0.48)	(0.34)	(0.33)	(0.08)	(0.08)	(0.06)	(0.14)
Adjusted R^2	0.39	0.30	0.45	0.27	0.30	0.37	0.37	0.49
N	862	847	864	820	865	848	865	821

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the availability of a type of *central bank projection* or forward guidance.

Table A.20. Private-Sector Macro Forecasts: Forecast Dispersion and Absolute Forecast Error (advanced economies only)

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	0.01	0.07	0.05	−0.19	−0.02	−0.02	−0.04	0.04
	(0.11)	(0.19)	(0.10)	(0.28)	(0.05)	(0.14)	(0.05)	(0.13)
Output Gap	0.05	0.09	−0.10	0.32	0.01	−0.11	−0.07*	0.21
	(0.11)	(0.10)	(0.09)	(0.25)	(0.04)	(0.12)	(0.03)	(0.18)
Unemployment	−0.15	−0.02	0.02	−0.02	0.12	0.06	0.01	0.47**
	(0.16)	(0.17)	(0.15)	(0.23)	(0.08)	(0.19)	(0.06	(0.17)
Rate Projection	−0.03	−0.27	0.08	−0.00	0.02	−0.09	0.15**	0.07
	(0.19)	(0.38)	(0.19)	(0.37)	(0.13)	(0.25)	(0.07)	(0.16)
FG Time Contingent	0.02	−0.27	0.12	−0.28	0.10	0.29	0.10*	−0.30
	(0.09)	(0.17)	(0.08)	(0.19)	(0.11)	(0.27)	(0.05)	(0.28)
FG Qualitative	−0.03	0.21*	0.06	0.05	−0.03	0.08	−0.01	−0.04
	(0.09)	(0.10)	(0.04)	(0.17)	(0.04)	(0.10)	(0.06)	(0.13)
FG State Contingent	0.06	−0.14	0.02	−0.14	−0.00	−0.04	−0.17**	0.11
	(0.18)	(0.20)	(0.06)	(0.18)	(0.06)	(0.11)	(0.06)	(0.20)
Quantitative Easing	0.31	0.09	0.10	−0.34	0.10	0.01	0.21**	−0.23
	(0.22)	(0.13)	(0.06)	(0.32)	(0.12)	(0.09)	(0.07)	(0.26)
Adjusted R^2	0.19	0.19	0.31	0.14	0.59	0.12	0.36	0.23
N	878	860	881	824	859	843	859	807

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural logarithm of the interdecile range of *private forecasts* of CPI for the current year (CY). Row interpretation: rows correspond to binary variables indicating the availability of a type of *central bank projection* or forward guidance.

Table A.21. Private-Sector Rate Forecasts: Forecast Dispersion and Absolute Forecast Error (emerging market economies only)

	3M (3M) Dispersion (1)	3M (3M) Error (2)	3M (12M) Dispersion (3)	3M (12M) Error (4)	10Y (3M) Dispersion (5)	10Y (3M) Error (6)	10Y (12M) Dispersion (7)	10Y (12M) Error (8)
Inflation	−0.06	−0.62***	−0.08	−0.39*	−0.07***	−0.34***	0.23***	−0.42***
	(0.13)	(0.13)	(0.08)	(0.20)	(0.00)	(0.00)	(0.00)	(0.00)
Output Gap	−0.04	−0.13	0.03	−0.31	0.08	1.98***	0.27	0.56
	(0.22)	(0.14)	(0.12)	(0.19)	(.)	(0.00)	(.)	(.)
Unemployment	0.35*	0.77**	0.17**	0.75	0.03	−1.05***	−0.57	−0.44
	(0.16)	(0.31)	(0.07)	(0.42)	(.)	(0.00)	(.)	(.)
Rate Projection	0.71***	0.01	0.21	−0.50	0.00	0.00	0.00	0.00
	(0.19)	(0.12)	(0.18)	(0.65)	(.)	(.)	(.)	(.)
FG Time Contingent	0.02	0.31	−0.07	0.39*	0.00	0.00	0.00	0.00
	(0.24)	(0.42)	(0.16)	(0.20)	(.)	(.)	(.)	(.)
FG Qualitative	−0.03	−0.08	−0.08	0.07	−0.19***	−1.08***	0.02	−0.18***
	(0.17)	(0.09)	(0.08)	(0.17)	(0.00)	(0.00)	(.)	(0.00)
FG State Contingent	0.51*	0.16	0.07	−0.84**	0.66***	0.99***	0.11	0.90
	(0.22)	(0.40)	(0.07)	(0.29)	(0.00)	(0.00)	(.)	(.)
Adjusted R^2	0.57	0.30	0.62	0.28	0.64	0.46	0.54	0.38
N	525	512	527	488	174	170	174	164

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the availability of a type of *central bank projection* or forward guidance.

Table A.22. Private-Sector Macro Forecasts: Forecast Dispersion and Absolute Forecast Error (emerging market economies only)

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	0.07	−0.11	0.01	−0.44*	0.19*	−0.16	−0.20**	−0.42
	(0.09)	(0.28)	(0.10)	(0.22)	(0.08)	(0.15)	(0.08)	(0.24)
Output Gap	0.04	−0.01	0.01	0.26	0.07	0.63*	0.05	0.19
	(0.12)	(0.19)	(0.10)	(0.26)	(0.10)	(0.31)	(0.07)	(0.19)
Unemployment	0.43*	0.15	0.26	0.20	0.41***	0.15	0.22**	0.44
	(0.19)	(0.29)	(0.15)	(0.26)	(0.08)	(0.22)	(0.07)	(0.32)
Rate Projection	−0.42	−0.70*	−0.22	−0.87**	−0.09	−0.19	−0.05	0.14
	(0.38)	(0.36)	(0.35)	(0.33)	(0.19)	(0.34)	(0.13)	(0.43)
FG Time Contingent	−0.24	−0.17	−0.19**	0.27	0.00	−0.70	−0.07	0.27
	(0.13)	(0.31)	(0.07)	(0.28)	(0.13)	(0.56)	(0.10)	(0.72)
FG Qualitative	−0.15	−0.46	−0.06	0.08	0.07	−0.14	−0.01	−0.18
	(0.10)	(0.28)	(0.05)	(0.34)	(0.09)	(0.33)	(0.08)	(0.16)
FG State Contingent	−0.24	−0.43	−0.27**	−0.03	0.01	0.67*	0.07	−0.40*
	(0.17)	(0.23)	(0.11)	(0.32)	(0.06)	(0.29)	(0.10)	(0.18)
Adjusted R^2	0.67	0.30	0.61	0.28	0.58	0.20	0.48	0.33
N	641	625	641	593	560	546	560	518

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural logarithm of the interdecile range of *private forecasts* of CPI for the current year (CY). Row interpretation: rows correspond to binary variables indicating the availability of a type of *central bank projection* or forward guidance.

Table A.23. Private-Sector Rates Forecasts: Forecast Dispersion and Absolute Forecast Error (euro-area data omitted)

	3M (3M) Dispersion (1)	3M (3M) Error (2)	3M (12M) Dispersion (3)	3M (12M) Error (4)	10Y (3M) Dispersion (5)	10Y (3M) Error (6)	10Y (12M) Dispersion (7)	10Y (12M) Error (8)
Inflation	−0.20**	−0.28*	−0.19**	−0.29**	−0.23***	−0.38*	−0.10	−0.23
	(0.09)	(0.14)	(0.07)	(0.12)	(0.07)	(0.21)	(0.07)	(0.16)
Output Gap	−0.14	−0.17	−0.06	−0.07	−0.06	0.16	−0.06	0.05
	(0.10)	(0.16)	(0.08)	(0.12)	(0.09)	(0.13)	(0.05)	(0.09)
Unemployment	0.15	0.45***	0.11	0.46***	0.19**	0.18	0.15*	0.20
	(0.09)	(0.14)	(0.08)	(0.16)	(0.08)	(0.18)	(0.08)	(0.16)
Rate Projection	0.21*	−0.01	0.19*	−0.13	0.06	−0.09	0.15	0.07
	(0.11)	(0.23)	(0.11)	(0.22)	(0.08)	(0.17)	(0.09)	(0.16)
FG Time Contingent	−0.17	0.04	−0.14	0.29	−0.07	−0.00	−0.19*	0.11
	(0.14)	(0.20)	(0.11)	(0.25)	(0.06)	(0.16)	(0.09)	(0.13)
FG Qualitative	−0.02	−0.11	−0.09	−0.16	0.01	0.04	−0.01	0.08
	(0.09)	(0.07)	(0.06)	(0.11)	(0.03)	(0.06)	(0.03)	(0.09)
FG State Contingent	0.17	0.19	0.06	−0.33*	−0.09	0.09	−0.13**	0.11
	(0.15)	(0.18)	(0.12)	(0.17)	(0.06)	(0.16)	(0.05)	(0.10)
Quantitative Easing	−0.27	0.08	−0.34	0.45	−0.01	−0.01	0.01	−0.15
	(0.22)	(0.34)	(0.24)	(0.27)	(0.08)	(0.09)	(0.05)	(0.11)
Adjusted R^2	0.42	0.22	0.49	0.27	0.27	0.30	0.25	0.40
N	1,864	1,827	1,868	1,761	1,536	1,505	1,536	1,457

Notes: Panel regressions with country and quarterly fixed effects. This table is redundant (included for completeness). Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

Table A.24. Private-Sector Macro Forecasts: Forecast Dispersion and Absolute Forecast Error (euro-area data omitted)

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	−0.15	−0.10	−0.11	−0.36*	−0.12**	−0.24	−0.12**	−0.19
	(0.12)	(0.13)	(0.09)	(0.18)	(0.05)	(0.15)	(0.05)	(0.14)
Output Gap	−0.12	−0.21	−0.17	0.04	−0.01	0.17	−0.06	0.03
	(0.12)	(0.15)	(0.10)	(0.17)	(0.06)	(0.13)	(0.05)	(0.17)
Unemployment	0.04	0.13	0.07	0.23	0.20***	0.12	0.07	0.40**
	(0.16)	(0.17)	(0.13)	(0.21)	(0.05)	(0.16)	(0.06)	(0.15)
Rate Projection	−0.29	−0.39	−0.18	−0.47	−0.08	−0.16	−0.01	0.09
	(0.23)	(0.32)	(0.20)	(0.29)	(0.07)	(0.18)	(0.07)	(0.26)
FG Time Contingent	0.12	0.04	0.11	0.15	0.08	0.21	0.01	−0.08
	(0.12)	(0.16)	(0.12)	(0.21)	(0.09)	(0.21)	(0.07)	(0.19)
FG Qualitative	−0.01	0.04	0.03	0.05	−0.03	0.13	−0.04	−0.12
	(0.06)	(0.10)	(0.05)	(0.11)	(0.03)	(0.09)	(0.05)	(0.11)
FG State Contingent	−0.07	−0.14	−0.04	−0.21*	−0.01	0.20	−0.12	0.02
	(0.11)	(0.15)	(0.08)	(0.12)	(0.04)	(0.26)	(0.07)	(0.17)
Quantitative Easing	0.27**	0.31*	0.12	−0.11	0.09	−0.09	0.07	−0.30
	(0.12)	(0.17)	(0.09)	(0.22)	(0.08)	(0.15)	(0.05)	(0.23)
Adjusted R^2	0.27	0.23	0.25	0.16	0.54	0.16	0.28	0.21
N	2,011	1,973	2,020	1,885	1,912	1,872	1,912	1,788

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural log of the interdecile range of *private forecasts* of CPI for the current year (CY). Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

3. Does the Number of Central Bank Projections Matter?

We have already considered how particular central bank projections influenced private-sector forecasts. What about the aggregate effect of numerous central bank projections? When central banks provide a whole set of projections, does this provide more information than merely providing one or two important projections, such as inflation or output? To analyze this question, we create a new variable that simply counts the number of projections released by a given central bank in a given quarter. To do so, we sum our six binary central bank projections variables. Accordingly, the minimum value is zero and the maximum value is six.

We find that, in general, the more central bank projections a central bank provided, the lower forecast dispersion and forecast error tended to be. This result is strongest for private-sector inflation forecast dispersion and error. Perhaps a larger suite of central bank projections allows private-sector forecasters to understand the assumptions underlying, say, a central bank's inflation projection. This display of technical ability could not only increase the credibility of a given central bank projection but also allow private-sector forecasters to compare the central bank's other macroeconomic assumptions with each of their own. To the extent that central banks have strong analytical capabilities, a larger set of central bank projections could also help private-sector forecasters better understand the prevailing macroeconomic landscape and thereby improve their forecasts.

Table A.25. Private-Sector Rate Forecasts: Does the Number of Central Bank Projections Matter?

	3-Month Government Bill Rate				10-Year Government Bond Yield			
	3-Month Forecast Horizon		12-Month Forecast Horizon		3-Month Forecast Horizon		12-Month Forecast Horizon	
	Dispersion (1)	Error (2)	Dispersion (3)	Error (4)	Dispersion (5)	Error (6)	Dispersion (7)	Error (8)
No. of Projections	−0.02	0.00	−0.02	0.01	−0.03**	−0.05*	−0.00	−0.01
	(0.02)	(0.04)	(0.02)	(0.04)	(0.01)	(0.03)	(0.01)	(0.02)
FG Time Contingent	−0.09	0.03	−0.06	0.24	−0.01	0.07	−0.11	0.19
	(0.17)	(0.26)	(0.13)	(0.25)	(0.07)	(0.15)	(0.07)	(0.12)
FG Qualitative	−0.01	−0.11	−0.08	−0.17	0.01	0.04	−0.00	0.08
	(0.08)	(0.07)	(0.06)	(0.11)	(0.03)	(0.06)	(0.04)	(0.08)
FG State Contingent	0.18	0.20	0.07	−0.34*	−0.07	0.11	−0.11*	0.13
	(0.14)	(0.17)	(0.11)	(0.18)	(0.07)	(0.16)	(0.06)	(0.09)
Quantitative Easing	−0.30	0.03	−0.37	0.39	−0.06	−0.10	−0.01	−0.21*
	(0.23)	(0.32)	(0.25)	(0.25)	(0.08)	(0.07)	(0.06)	(0.11)
Adjusted R^2	0.42	0.21	0.48	0.27	0.25	0.29	0.24	0.39
N	1,864	1,827	1,868	1,761	1,536	1,505	1,536	1,457

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

Table A.26. Private-Sector Macro Forecasts: Does the Number of Central Bank Projections Matter?

	Inflation Rate				Real Gross Domestic Product			
	Current-Year Forecast		Next Year Forecast		Current-Year Forecast		Next-Year Forecast	
	Dispersion (1)	Error (2)	Dispersion (3)	Error (4)	Dispersion (5)	Error (6)	Dispersion (7)	Error (8)
No. of Projections	−0.04**	−0.03	−0.04**	−0.06**	0.01	−0.02	−0.02**	0.04
	(0.02)	(0.02)	(0.02)	(0.03)	(0.01)	(0.03)	(0.01)	(0.03)
FG Time Contingent	0.01	−0.14	0.04	0.01	0.05	0.21	0.01	−0.02
	(0.11)	(0.13)	(0.12)	(0.17)	(0.09)	(0.19)	(0.08)	(0.16)
FG Qualitative	−0.02	0.02	0.02	0.01	−0.03	0.12	−0.05	−0.12
	(0.07)	(0.12)	(0.06)	(0.12)	(0.03)	(0.09)	(0.05)	(0.12)
FG State Contingent	−0.11	−0.20	−0.06	−0.30*	−0.03	0.18	−0.13*	0.03
	(0.12)	(0.15)	(0.09)	(0.16)	(0.04)	(0.26)	(0.07)	(0.19)
Quantitative Easing	0.26**	0.32*	0.14	−0.18	0.08	−0.08	0.05	−0.38*
	(0.12)	(0.17)	(0.09)	(0.20)	(0.07)	(0.16)	(0.04)	(0.21)
Adjusted R^2	0.27	0.23	0.24	0.16	0.54	0.16	0.29	0.22
N	2,070	2,026	2,079	1,934	1,971	1,929	1,971	1,841

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural log of the interdecile range of *private forecasts,* CPI current year (CY). Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

4. Summary Statistics

Table A.27. Summary Statistics: The Natural Logarithm of Private-Sector Forecast Dispersion and the Natural Logarithm of Absolute Forecast Error

	Mean	S.D.	Count	Min.	Max.
A. Interdecile Range					
3M (3M) Interdecile Range (ln)	−0.92	0.88	1,384	−4.71	3.46
3M (12M) Interdecile Range (ln)	−0.20	0.77	1,384	−4.61	3.09
10Y (3M) Interdecile Range (ln)	−0.51	0.60	1,384	−2.94	3.30
10Y (12M) Interdecile Range (ln)	−0.07	0.55	1,384	−1.61	3.22
CPI (CY) Interdecile Range (ln)	−1.00	1.21	1,384	−35.13	3.40
CPY (NY) Interdecile Range (ln)	−0.18	0.55	1,384	−2.04	3.30
GDP (CY) Interdecile Range (ln)	−0.64	0.70	1,384	−3.79	2.13
GDP (NY) Interdecile Range (ln)	−0.04	0.46	1,384	−1.61	2.14
B. Absolute Forecast Error					
3M (3M) Absolute Forecast Error (ln)	−1.22	1.35	1,384	−9.15	3.06
3M (12M) Absolute Forecast Error (ln)	−0.39	1.21	1,384	−6.07	3.68
10Y (3M) Absolute Forecast Error (ln)	−1.05	1.21	1,384	−6.91	2.85
10Y (12M) Absolute Forecast Error (ln)	−0.40	1.15	1,384	−5.99	3.37
CPI (CY) Absolute Forecast Error (ln)	−2.01	1.37	1,384	−8.32	2.71
CPI (NY) Absolute Forecast Error (ln)	−0.64	1.20	1,384	−7.82	3.95
GDP (CY) Absolute Forecast Error (ln)	−0.80	1.15	1,384	−6.92	2.10
GDP (NY) Absolute Forecast Error (ln)	−0.31	1.20	1,384	−7.28	3.03

Notes: This table shows summary statistics for the dependent variables in this paper. Central bank projections and forward guidance are charted in the main paper. Row interpretation 1: 3M (3M), forecast of the three-month rate in three months' time. Row interpretation 2: CPI (CY), forecast of CPI for the current year (CY).

5. Robustness Checks

5.1 Interquartile Range

In this section, we reestimate the benchmark regressions from our paper using interquartile range rather than interdecile range, range, or standard deviation.

Table A.28. Private-Sector Rate Forecasts: Forecast Dispersion and Absolute Forecast Error (interquartile range instead of interdecile range)

	3M (3M) Dispersion (1)	3M (3M) Error (2)	3M (12M) Dispersion (3)	3M (12M) Error (4)	10Y (3M) Dispersion (5)	10Y (3M) Error (6)	10Y (12M) Dispersion (7)	10Y (12M) Error (8)
Inflation	−0.17*	−0.28*	−0.13	−0.29**	−0.30***	−0.38*	−0.20**	−0.23
	(0.10)	(0.14)	(0.10)	(0.12)	(0.08)	(0.21)	(0.08)	(0.16)
Output Gap	−0.23**	−0.17	−0.15*	−0.07	0.02	0.16	0.00	0.05
	(0.09)	(0.16)	(0.08)	(0.12)	(0.09)	(0.13)	(0.06)	(0.09)
Unemployment	0.15	0.45***	0.15	0.46***	0.23**	0.18	0.23**	0.20
	(0.09)	(0.14)	(0.09)	(0.16)	(0.09)	(0.18)	(0.10)	(0.16)
Rate Projection	0.27**	−0.01	0.29***	−0.13	0.04	−0.09	0.09	0.07
	(0.11)	(0.23)	(0.10)	(0.22)	(0.08)	(0.17)	(0.10)	(0.16)
FG Time Contingent	−0.32*	0.04	−0.18	0.29	−0.05	−0.00	−0.05	0.11
	(0.16)	(0.20)	(0.13)	(0.25)	(0.08)	(0.16)	(0.10)	(0.13)
FG Qualitative	0.02	−0.11	−0.13*	−0.16	0.00	0.04	−0.03	0.08
	(0.08)	(0.07)	(0.07)	(0.11)	(0.04)	(0.06)	(0.03)	(0.09)
FG State Contingent	0.05	0.19	−0.13	−0.33*	−0.12*	0.09	−0.14**	0.11
	(0.17)	(0.18)	(0.16)	(0.17)	(0.06)	(0.16)	(0.06)	(0.10)
Quantitative Easing	−0.33	0.08	−0.34*	0.45	0.01	−0.01	0.04	−0.15
	(0.26)	(0.34)	(0.17)	(0.27)	(0.09)	(0.09)	(0.06)	(0.11)
Adjusted R^2	0.38	0.22	0.38	0.27	0.23	0.30	0.21	0.40
N	1,799	1,827	1,847	1,761	1,527	1,505	1,536	1,457

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

Table A.29. Private-Sector Macro Forecasts: Forecast Dispersion and Absolute Forecast Error (interquartile range instead of interdecile range)

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	−0.07	−0.08	−0.17*	−0.36*	−0.17**	−0.26*	−0.16***	−0.16
	(0.11)	(0.13)	(0.09)	(0.18)	(0.07)	(0.15)	(0.05)	(0.14)
Output Gap	−0.10	−0.23	−0.11	0.04	0.01	0.19	−0.07	0.02
	(0.10)	(0.15)	(0.10)	(0.16)	(0.05)	(0.12)	(0.05)	(0.17)
Unemployment	0.05	0.12	0.08	0.22	0.19***	0.13	0.14**	0.37**
	(0.11)	(0.17)	(0.13)	(0.20)	(0.06)	(0.15)	(0.06)	(0.14)
Rate Projection	−0.19	−0.37	−0.20	−0.47	0.01	−0.18	0.06	0.11
	(0.21)	(0.32)	(0.17)	(0.29)	(0.10)	(0.18)	(0.09)	(0.26)
FG Time Contingent	0.06	0.04	0.20	0.15	0.08	0.21	−0.02	−0.08
	(0.11)	(0.15)	(0.15)	(0.20)	(0.09)	(0.21)	(0.06)	(0.18)
FG Qualitative	0.06	0.04	0.03	0.04	0.04	0.12	−0.02	−0.12
	(0.06)	(0.10)	(0.05)	(0.11)	(0.03)	(0.09)	(0.05)	(0.11)
FG State Contingent	−0.06	−0.15	−0.03	−0.22*	−0.01	0.20	−0.13**	0.02
	(0.08)	(0.15)	(0.08)	(0.12)	(0.04)	(0.25)	(0.06)	(0.18)
Quantitative Easing	0.24**	0.29*	0.15	−0.11	0.00	−0.03	0.05	−0.36
	(0.11)	(0.17)	(0.10)	(0.22)	(0.08)	(0.16)	(0.04)	(0.22)
Adjusted R^2	0.32	0.24	0.21	0.17	0.45	0.16	0.25	0.22
N	1,994	2,026	2,078	1,934	1,947	1,929	1,971	1,841

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural logarithm of the interquartile range of *private forecasts* of CPI for the current year (CY). Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

5.2 Bootstrapped Standard Errors

In this section, we reestimate the benchmark regressions from our paper using bootstrapped standard errors.

Table A.30. Private-Sector Rate Forecasts: Forecast Dispersion and Absolute Forecast Error (bootstrapped standard errors)

	3M (3M) Dispersion (1)	3M (3M) Error (2)	3M (12M) Dispersion (3)	3M (12M) Error (4)	10Y (3M) Dispersion (5)	10Y (3M) Error (6)	10Y (12M) Dispersion (7)	10Y (12M) Error (8)
Inflation	−0.20***	−0.28**	−0.19**	−0.29**	−0.23***	−0.38	−0.10	−0.23
	(0.08)	(0.14)	(0.08)	(0.12)	(0.08)	(0.28)	(0.11)	(0.18)
Output Gap	−0.14	−0.17	−0.06	−0.07	−0.06	0.16	−0.06	0.05
	(0.11)	(0.15)	(0.09)	(0.12)	(0.09)	(0.17)	(0.06)	(0.09)
Unemployment	0.15*	0.45***	0.11	0.46***	0.19*	0.18	0.15	0.20
	(0.09)	(0.17)	(0.09)	(0.16)	(0.10)	(0.22)	(0.10)	(0.20)
Rate Projection	0.21*	−0.01	0.19	−0.13	0.06	−0.09	0.15	0.07
	(0.12)	(0.24)	(0.14)	(0.21)	(0.07)	(0.22)	(0.13)	(0.22)
FG Time Contingent	−0.17	0.04	−0.14	0.29	−0.07	−0.00	−0.19*	0.11
	(0.12)	(0.22)	(0.10)	(0.22)	(0.09)	(0.19)	(0.11)	(0.15)
FG Qualitative	−0.02	−0.11	−0.09	−0.16	0.01	0.04	−0.01	0.08
	(0.09)	(0.07)	(0.06)	(0.10)	(0.04)	(0.08)	(0.03)	(0.10)
FG State Contingent	0.17	0.19	0.06	−0.33	−0.09	0.09	−0.13*	0.11
	(0.17)	(0.21)	(0.13)	(0.22)	(0.06)	(0.19)	(0.07)	(0.14)
Quantitative Easing	−0.27	0.08	−0.34	0.45*	−0.01	−0.01	0.01	−0.15
	(0.21)	(0.37)	(0.24)	(0.24)	(0.08)	(0.12)	(0.06)	(0.13)
Adjusted R^2	0.42	0.21	0.48	0.26	0.26	0.29	0.24	0.39
N	1,864	1,827	1,868	1,761	1,536	1,505	1,536	1,457

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are bootstrapped and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: 3M (3M) Dispersion: natural log of the interdecile range of *private forecasts* of the three-month yield in three months' time. Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

Table A.31. Private-Sector Macro Forecasts: Forecast Dispersion and Absolute Forecast Error (bootstrapped standard errors)

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Inflation	−0.14	−0.08	−0.11	−0.36*	−0.10*	−0.26*	−0.11**	−0.16
	(0.10)	(0.15)	(0.09)	(0.21)	(0.06)	(0.15)	(0.05)	(0.15)
Output Gap	−0.13	−0.23*	−0.16	0.04	−0.03	0.19	−0.07	0.02
	(0.12)	(0.14)	(0.10)	(0.16)	(0.06)	(0.12)	(0.05)	(0.18)
Unemployment	0.03	0.12	0.06	0.22	0.19***	0.13	0.06	0.37**
	(0.14)	(0.17)	(0.13)	(0.23)	(0.05)	(0.13)	(0.06)	(0.18)
Rate Projection	−0.28	−0.37	−0.19	−0.47	−0.07	−0.18	−0.00	0.11
	(0.28)	(0.35)	(0.26)	(0.31)	(0.09)	(0.25)	(0.08)	(0.29)
FG Time Contingent	0.12	0.04	0.12	0.15	0.08	0.21	0.01	−0.08
	(0.13)	(0.16)	(0.14)	(0.24)	(0.09)	(0.30)	(0.07)	(0.20)
FG Qualitative	−0.00	0.04	0.03	0.04	−0.03	0.12	−0.05	−0.12
	(0.06)	(0.09)	(0.04)	(0.10)	(0.03)	(0.09)	(0.04)	(0.12)
FG State Contingent	−0.07	−0.15	−0.03	−0.22	−0.01	0.20	−0.12*	0.02
	(0.10)	(0.15)	(0.08)	(0.13)	(0.05)	(0.25)	(0.07)	(0.20)
Quantitative Easing	0.25**	0.29*	0.12	−0.11	0.08	−0.03	0.05	−0.36
	(0.12)	(0.17)	(0.08)	(0.21)	(0.07)	(0.18)	(0.06)	(0.27)
Adjusted R^2	0.27	0.23	0.24	0.16	0.54	0.15	0.28	0.21
N	2,070	2,026	2,079	1,934	1,971	1,929	1,971	1,841

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are bootstrapped and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Dispersion: natural logarithm of the interdecile range of *private forecasts* of CPI for the current year (CY). Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

5.3 Nowcast Robustness Check

In this section, we consider whether revisions to macroeconomic data are an issue for our results. To do so, we recalculate private-sector forecast errors. We do so by replacing the realized macroeconomic (inflation and domestic output) data with the relevant Consensus Economics December forecast for the current year. Because most of the inflation or domestic output data for the current year would have already been reported by December, we can think of the December Consensus Economics forecast for the current year as a nowcast. Our results are broadly robust to this alternate method of calculating forecast error.

Table A.32. Private-Sector Macro Forecasts: Absolute Forecast Error (calculated using both nowcasts and realized data)

	CPI (CY) Nowcast (1)	CPI (CY) Realized (2)	CPI (NY) Nowcast (3)	CPI (NY) Realized (4)	GDP (CY) Nowcast (5)	GDP (CY) Realized (6)	GDP (NY) Nowcast (7)	GDP (NY) Realized (8)
Inflation	−0.25	−0.08	−0.39**	−0.36*	−0.09	−0.26*	−0.13	−0.16
	(0.20)	(0.13)	(0.18)	(0.18)	(0.14)	(0.15)	(0.16)	(0.14)
Output Gap	−0.29**	−0.23	0.08	0.04	−0.09	0.19	0.08	0.02
	(0.13)	(0.15)	(0.18)	(0.16)	(0.16)	(0.12)	(0.18)	(0.17)
Unemployment	0.09	0.12	0.18	0.22	0.03	0.13	0.22	0.37**
	(0.21)	(0.17)	(0.21)	(0.20)	(0.18)	(0.15)	(0.22)	(0.14)
Rate Projection	−0.36	−0.37	−0.51*	−0.47	−0.02	−0.18	0.25	0.11
	(0.30)	(0.32)	(0.26)	(0.29)	(0.22)	(0.18)	(0.28)	(0.26)
FG Time Contingent	0.59*	0.04	0.13	0.15	0.12	0.21	−0.16	−0.08
	(0.32)	(0.15)	(0.22)	(0.20)	(0.24)	(0.21)	(0.22)	(0.18)
FG Qualitative	−0.05	0.04	−0.03	0.04	−0.02	0.12	−0.01	−0.12
	(0.13)	(0.10)	(0.09)	(0.11)	(0.15)	(0.09)	(0.15)	(0.11)
FG State Contingent	−0.18	−0.15	−0.11	−0.22*	−0.03	0.20	−0.25	0.02
	(0.13)	(0.15)	(0.18)	(0.12)	(0.11)	(0.25)	(0.18)	(0.18)
Quantitative Easing	0.09	0.29*	−0.07	−0.11	0.08	−0.03	−0.12	−0.36
	(0.15)	(0.17)	(0.25)	(0.22)	(0.25)	(0.16)	(0.17)	(0.22)
Adjusted $R2$	0.29	0.24	0.14	0.17	0.35	0.16	0.19	0.22
N	2,030	2,026	1,941	1,934	1,926	1,929	1,841	1,841

Notes: This table shows summary statistics from panel regressions with country and quarterly fixed effects. Standard errors are clustered by country and are shown in parentheses. The control variables are suppressed here for brevity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column interpretation: CPI (CY) Nowcast: natural log of the absolute forecast error of *private forecasts* of CPI for the current year (CY). Row interpretation: rows correspond to binary variables indicating the presence of a *central bank projection,* forward guidance, or QE.

5.4 Control Variables

In this section, we reestimate the benchmark regressions from our paper but instead report the estimated coefficients for the control variables rather than the variables of interest.

Table A.33. Private-Sector Rate Forecasts (control variables only): Forecast Dispersion and Absolute Forecast Error

	3M (3M) Dispersion (1)	3M (3M) Error (2)	3M (12M) Dispersion (3)	3M (12M) Error (4)	10Y (3M) Dispersion (5)	10Y (3M) Error (6)	10Y (12M) Dispersion (7)	10Y (12M) Error (8)
Conditional Volatility	0.00**	0.00***	0.00**	0.00***	0.02***	0.00	0.01***	0.02***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
VIX	−0.02	0.04	−0.04**	−0.01	−0.02	0.01	−0.03***	0.05***
	(0.02)	(0.05)	(0.01)	(0.03)	(0.01)	(0.02)	(0.01)	(0.01)
$\lvert\Delta WTI\rvert$	0.04**	0.14***	0.00	0.14***	0.00	0.09***	0.00	−0.02
	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)
MPR Dummy	0.17**	0.10	0.18**	0.06	0.10***	0.04	0.07*	−0.10
	(0.08)	(0.10)	(0.08)	(0.15)	(0.03)	(0.14)	(0.03)	(0.18)
Decision Dummy	−0.11	−0.13	−0.08	−0.04	−0.23***	−0.19	−0.13*	0.06
	(0.08)	(0.14)	(0.05)	(0.11)	(0.08)	(0.12)	(0.06)	(0.15)
Peg/Union Dummy	−0.35***	−0.22	−0.47***	−0.64***	−0.19	−0.29**	−0.14**	−0.52***
	(0.09)	(0.14)	(0.09)	(0.16)	(0.13)	(0.12)	(0.06)	(0.13)
IT Dummy	−0.15	−0.10	−0.14	−0.27	−0.02	−0.04	−0.11	−0.11
	(0.12)	(0.20)	(0.11)	(0.19)	(0.08)	(0.20)	(0.09)	(0.18)
Crisis Dummy	−0.52*	1.01	−0.53**	−0.77*	−0.54**	−0.08	−0.58***	0.61*
	(0.27)	(0.86)	(0.25)	(0.43)	(0.19)	(0.49)	(0.12)	(0.33)
ELB Dummy	−0.33**	0.02	−0.18**	−0.25	0.14*	0.24	0.24***	0.27*
	(0.15)	(0.15)	(0.08)	(0.18)	(0.07)	(0.16)	(0.05)	(0.14)
Adjusted R^2	0.42	0.22	0.49	0.27	0.27	0.30	0.25	0.40
N	1,864	1,827	1,868	1,761	1,536	1,505	1,536	1,457

Table A.34. Private-Sector Macro Forecasts (control variables only): Forecast Dispersion and Absolute Forecast Error

	CPI (CY) Dispersion (1)	CPI (CY) Error (2)	CPI (NY) Dispersion (3)	CPI (NY) Error (4)	GDP (CY) Dispersion (5)	GDP (CY) Error (6)	GDP (NY) Dispersion (7)	GDP (NY) Error (8)
Conditional Volatility	0.00***	0.00**	0.00***	0.00***	0.02**	0.01	0.01*	0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
VIX	0.01	−0.03*	0.00	−0.01	−0.01	−0.02	0.01**	−0.03***
	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
$\lvert\Delta WTI\rvert$	0.02	−0.02	−0.01	0.06**	−0.05***	0.03	−0.01	0.10***
	(0.01)	(0.02)	(0.01)	(0.03)	(0.01)	(0.03)	(0.01)	(0.02)
MPR Dummy	0.08	0.24**	0.09	0.19	0.03	0.05	0.11**	−0.04
	(0.09)	(0.10)	(0.07)	(0.12)	(0.05)	(0.10)	(0.05)	(0.15)
Decision Dummy	−0.33***	0.11	−0.28***	−0.01	−0.07	−0.06	−0.13**	−0.30***
	(0.09)	(0.12)	(0.09)	(0.10)	(0.06)	(0.15)	(0.05)	(0.09)
Peg/Union Dummy	0.00	−0.25	−0.21	−0.14	−0.01	−0.01	0.08*	0.29
	(0.24)	(0.19)	(0.17)	(0.33)	(0.06)	(0.26)	(0.05)	(0.19)
IT Dummy	−0.28**	−0.37**	−0.07	−0.07	−0.05	−0.02	0.05	−0.01
	(0.14)	(0.17)	(0.11)	(0.19)	(0.07)	(0.16)	(0.07)	(0.16)
Crisis Dummy	0.21**	0.13	0.10	−0.64*	0.21	−0.29	0.05	0.50
	(0.08)	(0.33)	(0.07)	(0.34)	(0.16)	(0.30)	(0.12)	(0.36)
ELB Dummy	−0.08	−0.03	0.12	0.20	0.04	−0.20	0.18***	−0.23
	(0.19)	(0.13)	(0.11)	(0.16)	(0.04)	(0.15)	(0.06)	(0.20)
Q2 Dummy	−0.32	0.05	−0.26*	0.06	−0.39**	0.65	−0.27**	−0.63**
	(0.26)	(1.08)	(0.14)	(0.85)	(0.15)	(0.45)	(0.13)	(0.23)
Q3 Dummy	−1.13***	−0.06	−0.33***	0.52	−0.63***	0.58	−0.15	−1.40***
	(0.26)	(1.21)	(0.11)	(0.95)	(0.08)	(0.37)	(0.18)	(0.43)
Q4 Dummy	−1.51***	−0.96	−0.58***	−0.11	−1.47***	−0.08	−0.38***	−0.90***
	(0.32)	(1.11)	(0.17)	(0.88)	(0.26)	(0.56)	(0.11)	(0.16)

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