Is There Wisdom in a Second Opinion? Shadowing the ECB and the Bank of England

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How Shadow Committees Work, How They Think,
and Do they Help Us Understand the Conduct of Monetary Policy?

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Introduction

- How well do monetary authorities perform?
- Is the monetary policy stance appropriate?
- **Shadow monetary policy committees** provide the public with a regular and independent assessment of their decisions
  - U.S.
  - Canada
  - Euro Area
  - U.K.
  - Australia (most recently)

Introduction – Shadow Councils

- Group of professionals and academics who provide **independent advice** about the upcoming setting of the monetary policy instrument
- The remit of these shadow committees is **not to predict** what the central bank will do
- Instead, the aim is to provide a **second opinion** about the appropriate stance of monetary policy
- Focus on
  - BoE Shadow Monetary Policy Committee (SMPC; since 2002)
  - ECB Shadow Governing Council (SGC; since 2006)

Outline

1. Introduction
2. **Shadow Monetary Policy Committees**
3. Data
4. Empirical Specifications
5. Empirical Results
6. Conclusions

(Shadow) Monetary Policy Committees

- The original idea for second guessing monetary policy follows the Shadow Open Market Committee of the U.S. Fed formed by Karl Brunner and Alan Meltzer during the 1970s
- Poole et al. (2011): SOMC's monetarist advice would have yielded less inflation and milder output losses for the U.S.
- Because of the structure of the SOMC's deliberations and their medium-term objectives their work cannot easily be compared with the shadow committees in this paper

(Shadow) Monetary Policy Committees

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Bank of England

- BoE's MPC consists of 9 members, four of whom are external members appointed by the Chancellor of the Exchequer
- The SMPC is an undertaking of the of the U.K. Institute of Economic Affairs
- Membership consists of a total of 14 members (9 of which are allowed to vote at each meeting) who represent both professional and academic economists in the U.K.
- SMPC meets either in person, or electronically, a few days before the MPC publishes its decision to provide its recommendation based on a majority vote

(Shadow) Monetary Policy Committees
–
Bank of England

	MPC	SMPC
Statement	yes	yes
Voting Record	yes	yes
Minutes	yes	yes
Press Conference	no	no
Forecast	quarterly	no

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(Shadow) Monetary Policy Committees – European Central Bank

- Euro area monetary policy is set by the Governing Council (GC) which consists of an Executive Board made up of six members and the presidents of the 17 national central banks
- The SGC operates through the German publication Handelsblatt and consists of 15 academic and professional economists
- The SGC meets via a telephone conference call approximately 1 week before the ECB announces its own monetary policy decision

(Shadow) Monetary Policy Committees
–
European Central Bank

	GC	**SGC**
Statement	yes	no (press release)
Voting Record	no	yes
Minutes	no	no
Press Conference	yes	no
Forecast	quarterly	monthly

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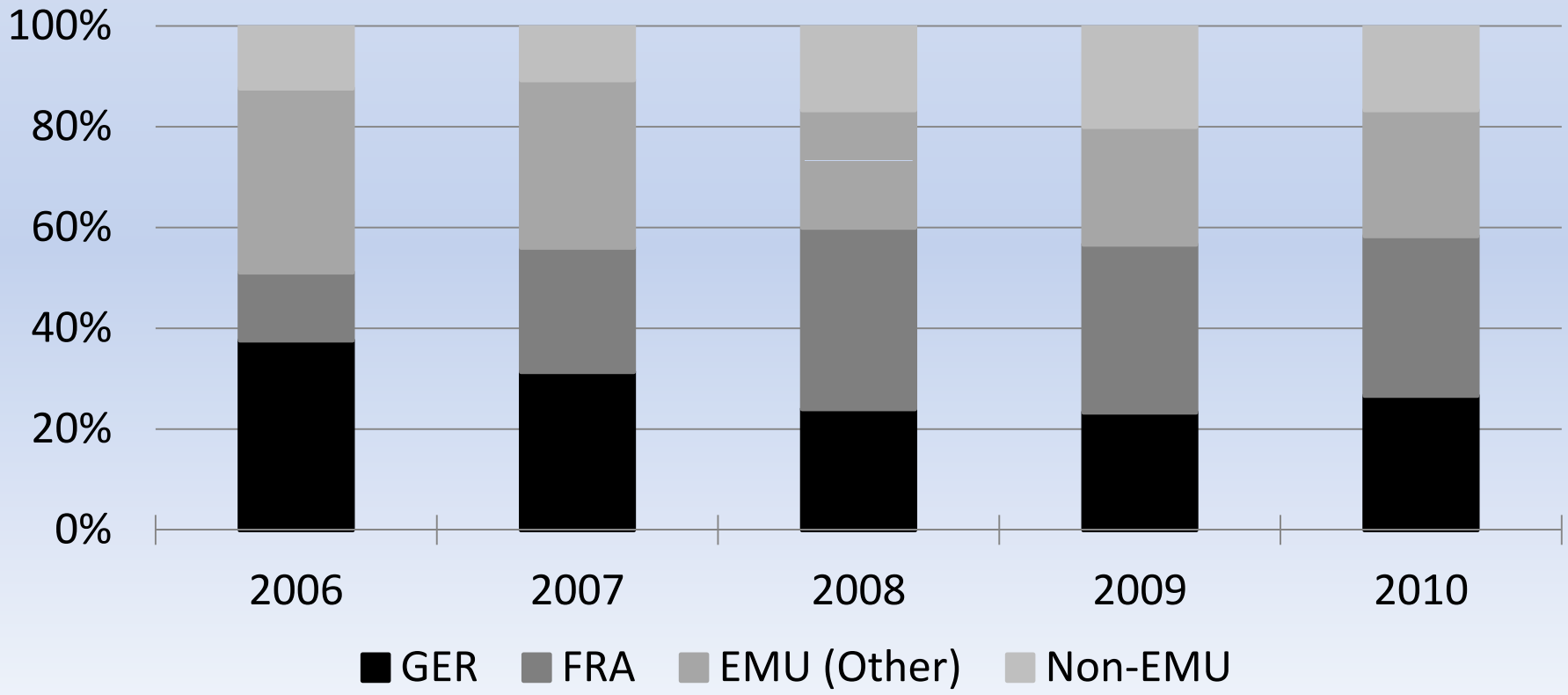
National Representation in the ECB SMPC



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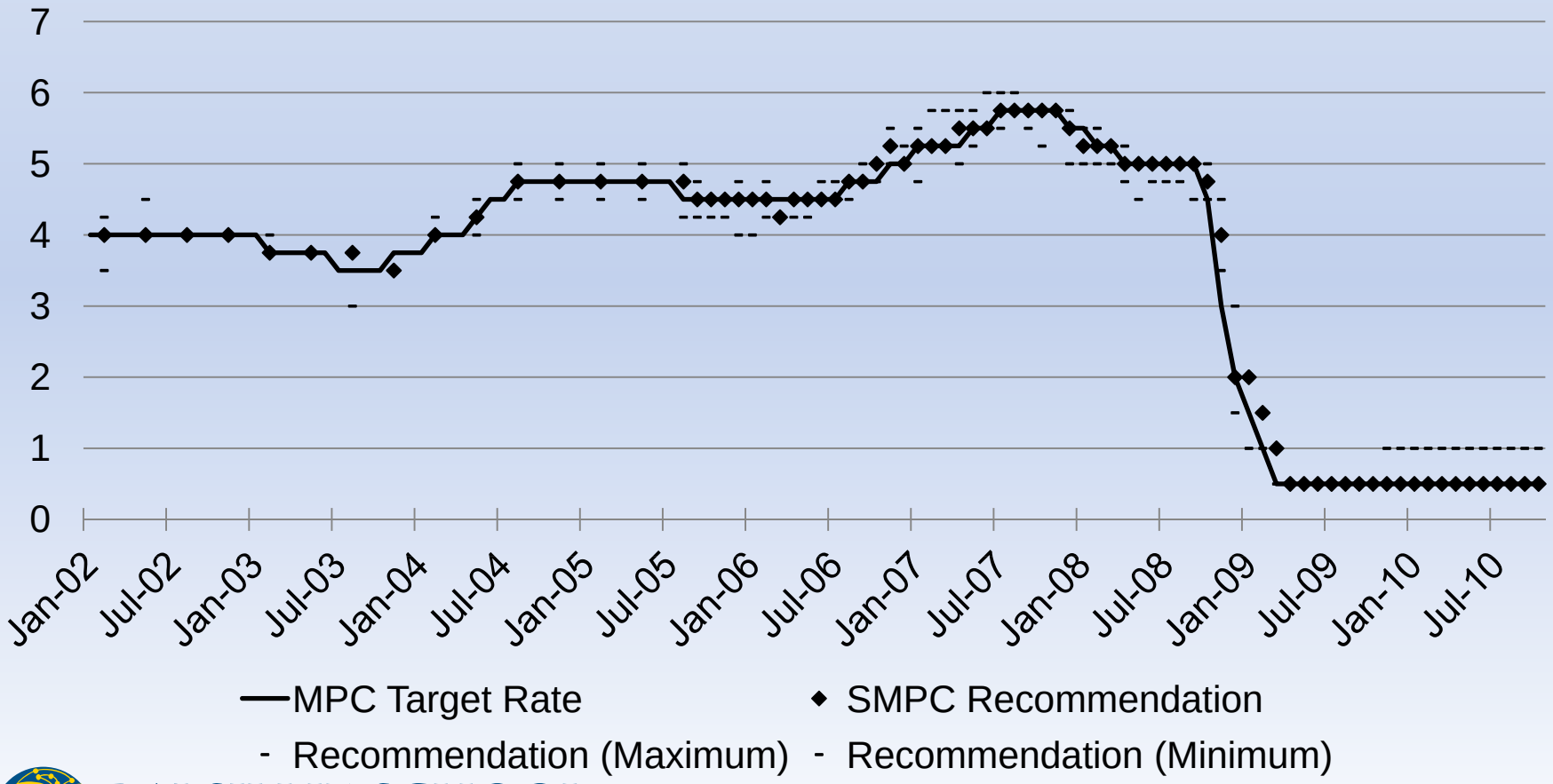
Data

- SMPC: January 2002 – October 2010; 77 observations
- Few differences between the median recommendations of the BoE's SMPC and its MPC counterpart
- However, the SMPC has to reset its proposal conditional on the prevailing policy rate set by the MPC
- Disagreement with the BOE's MPC tend to rise when rates are rising and are more subdued when they fall

Interest Rate Recommendations and Actual Target Rates – Bank of England



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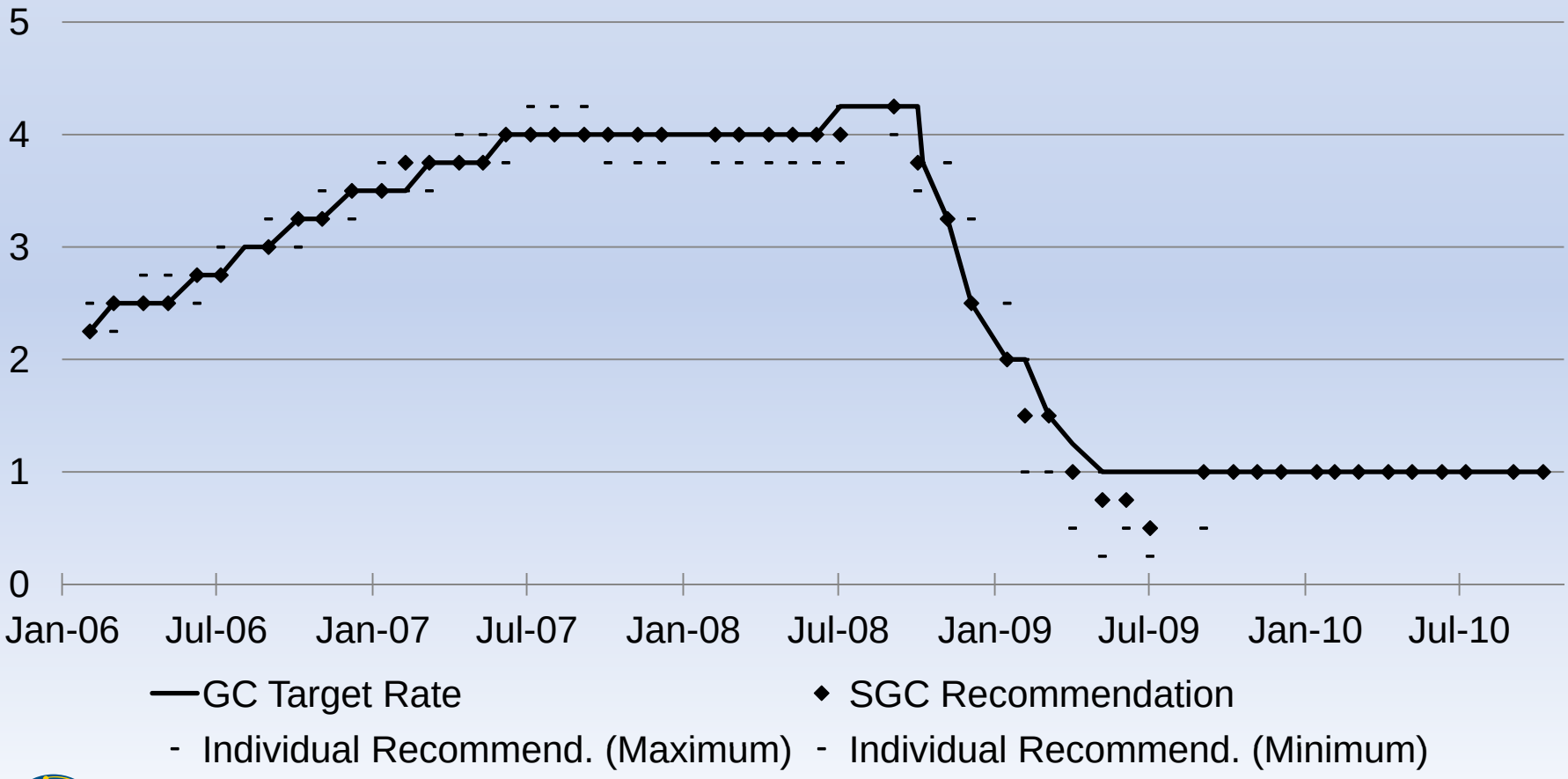
Data

- SGC: January 2006 – October 2010; 52 observations
- Few systematic differences between the GC's policy rate settings and those recommended by the SGC
- Disagreements become more visible when the policy rate is falling
- Distribution of the SGC's membership according to nationality: almost 30% of SGC members are from Germany

Interest Rate Recommendations and Actual Target Rates – European Central Bank



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Empirical Specifications

- It is convenient to consider some version of the Taylor rule:
  - the literature has gravitated in this direction as a short-hand expression to evaluate the conduct of monetary policy
  - Shadow committees are unlikely to think about the correct stance of monetary policy on a full-time basis (rule of thump approach)

$$(1)\quad i_t^{\tau} = (1-\rho)(\alpha r_t + \beta_0 \tilde{\pi}_{t+j|t} + \beta_1 \tilde{y}_{t+j|t}) + \rho i_{t-1}^{CB} + \theta \mathbf{X}_t + \varepsilon_t$$

- Estimation can't be via OLS
- *Instruments*: Lags of inflation, industrial production, broad monetary aggregate, overnight interest rate, and nominal U.S.-U.K. exchange rate (BoE)

Empirical Specifications

- Differences to a standard Taylor rule:
  - Both committees must set the current period policy rate according to the level set by the central bank in period t-1
  - Real interest rate is time varying and is based on the real return yield on 10 year U.K. (German) government bonds
  - 12 month ahead inflation and GDP forecasts from The Economist Poll of Forecasters and the SGC's own forecasts
  - Inflation target: 2%; output target: 1.5%
  - Control for share of professionals in the committees
  - ECB: Control for share of Germans

Empirical Specifications

- The availability of individual votes also permits us to delve more deeply into committee behaviour
- **Are there observables that can be used to explain how much consensus exists in the respective shadow committees?**

  (2) $\text{Consensus}_t = \delta_0 + \delta \mathbf{X}_t + u_t$

- Estimation via OLS
- Potential sources of consensus:
  - Share of professionals
  - Share of Germans (ECB)
  - Rate cuts, rate hikes, large vs. small changes

Empirical Specifications

- **Are there sources of disagreement with policy rate decisions taken by central banks?**

  (3) $\text{Disagreement}_t = \Pr[i_t^{SC} - i_t^{CB} \neq 0 \,|\, \mathbf{Z}_t] = \kappa_0 + \kappa_1 \mathbf{X}_t + \eta_t$

- Same potential sources of disagreement as above
  - Share of professionals
  - Share of Germans (ECB)
  - Rate cuts, rate hikes, large vs. small changes

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SMPC Recommendations and the Taylor Rule

	SMPC Proposal		SMPC Proposal		MPC Target Rate	
IR Smoothing	0.952	**	0.886	**	0.898	**
10 Year Real Bond	0.506		1.782	**	0.541	
Inflation Forecast Gap pre–QE	5.796	**	4.813	**	4.861	**
Inflation Forecast Gap QE	0.192		0.409		0.154	
GDP Forecast Gap pre–QE	5.775	**	3.440	**	4.883	**
GDP Forecast Gap QE	–0.017		0.025		0.008	
Share of Professionals	——		–0.261	**	——	
S.E. of regression	0.110		0.126		0.169	
Observations	77		77		77	
R^2	0.997		0.996		0.993	
J–statistic	0.116		0.070		0.109	

Note: * and ** indicate significance at a 5% and 1% level, respectively.
Newey-West (1987) standard errors are used.

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SMPC Recommendations and the Taylor Rule

- Results make allowances for the possibility that the stance of monetary policy is affected by the introduction of Quantitative easing (QE) in 2009
- Taylor principle holds for both the MPC and the SMPC during pre-QE period
- During the QE period, neither the SMPC nor the MPC react to either the inflation or output gaps
- Given the same set of forecasts, the degree of inflation aversion is the same on both committees

SGC Recommendations and the Taylor Rule

	SMPC Proposal		SMPC Proposal		MPC Target Rate	
IR Smoothing	0.948	**	0.931	**	0.967	**
10 Year Real Bond	1.570	**	1.355	**	1.762	**
Inflation Forecast Gap	3.701	**	3.166	**	4.705	**
GDP Forecast Gap	2.246	**	1.490	**	1.363	**
Share of Professionals	——		–0.197	**	——	
Share of Germans	——		0.586	**	——	
S.E. of regression	0.135		0.134		0.151	
Observations	52		52		52	
R^2	0.990		0.991		0.987	
J-statistic	0.184		0.164		0.173	

Note: * and ** indicate significance at a 5% and 1% level, respectively.
Newey-West (1987) standard errors are used.

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SGC Recommendations and the Taylor Rule

- Taylor principle is the guiding the reaction to inflation shocks
- The SGC is significantly less inflation averse than is the GC
- Professionals are less inflation averse than their academic counterparts
- German nationals on the committee are on average more hawkish than the other members of the SGC

Determinants of Consensus

SMPC	(1)	(2)
Constant Term	0.557 **	0.588 **
Share of Professionals	0.331	0.407 *
Proposal: Cut	——	–0.342 *
Proposal: Hike	——	–0.221 **
Proposal: Absolute Size	——	0.097

SGC	(3)	(4)	(5)
Constant Term	0.389 *	–0.042	0.303 *
Share of Professionals	0.580 *	0.856 *	0.768 **
Share of Germans	——	0.844	——
Proposal: Cut	——	——	–0.879 **
Proposal: Absolute Size	——	——	1.308 **

Note: * and ** indicate significance at a 5% and 1% level, respectively. Newey-West (1987) standard errors are used.

Determinants of Consensus

- SMPC
  - Share of professionals has an insignificant (marginally significant) influence on consensus
  - Consensus is always lower when rates changes are proposed
- SGC:
  - Share of professionals increases consensus
  - Rate cuts create relatively more disagreement than hikes
  - Larger changes prompt more agreement among committee members (financial crisis effect)

Determinants of Disagreement between the Committees

SMPC	(6)	(7)
Consensus	0.442 *	0.096
Share of Professionals	–0.112	0.057
Proposal: Cut	——	–0.349
Proposal: Hike	——	–0.270
Proposal: Absolute Size	——	0.035

GC	(8)	(9)	(10)
Consensus	0.784 **	0.585 **	0.648 **
Share of Professionals	0.303	——	–0.242
Share of Germans	1.415 **	——	2.225 *
Proposal: Cut	——	–0.882 **	–0.470
Proposal: Hike	——	–0.683 **	–0.620 **
Proposal: Absolute Size	——	1.564 *	0.616 *

Note: *, and ** indicate significance at a 5%, and 1% level, respectively. Huber (1967)/White (1980) robust standard errors are used.

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Determinants of Disagreement between the Committees

- BoE and ECB: A considerable amount of consensus decreases the likelihood of disagreement with the MPC

- ECB:
  - SGC is more activist than its GC counterpart (in line with lower interest rate smoothing parameter)
  - Share of German nationals on the committee is positively related to the likelihood of producing a recommendation that the GC agrees with

Taylor Rules Using Real-Time Data for the Output Gap – Bank of England

- Following the introduction of QE, the Taylor principle and the output gap ceased to be relevant to the SMPC (at least until September 2010)
- Implied tightening was far less aggressive than during the pre-QE era
- MPC treats the neutral real rate as zero during financial crisis

Taylor Rules Using Real-Time Data for the Output Gap – European Central Bank

- SGC did recommend policy rates based on output gaps and not on inflation during the height of the financial crisis (exception: March 2008)
- In 2010, the Taylor principle reasserts itself while GDP gaps once again play a lesser role
- SGC and GC treat neutral real interest rate effectively as zero during the crisis (in general: intercept estimates are highly sensitive to the use of real time information)
- Size of the response to the output gap changes significantly across both committees and vintages

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Conclusions

Interest Rate Proposals

- Few systematic differences between shadow and actual committee decisions
- The GC is less inflation averse than the SMPC and this may be partly explained by the number of professionals who sit on the shadow committee
- A factor that offsets the relatively lower rate of risk aversion of the SGC is the fraction of German nationals on the committee

Conclusions

Consensus with the Shadow Committees

- Consensus within a committee is far easier to reach when there is no pressure to change the policy rate
- Rises or falls in policy rates negatively affect consensus
- Share of professionals increases consensus

Conclusions

Disagreement with the MPC/GC

- Difficult to explain differences in policy rate recommendations between the shadow and formal committees at the BoE
- The SGC is more activist than its GC counterpart but that larger changes in policy rates increases agreement

Real-Time Data

- Interpretation of the stance of the shadow committees is sensitive to the use of real time data
- Estimates are a clear demonstration of the important role of real time data in evaluations of monetary policy

Taylor Rules for the SMPC and MPC in Real Time: Selected Estimates

SMPC / GDP Vintage	Sep-10	Jun-10	Apr-09	Dec-08	Jun-08	Mar-08	Nov-07
IR Smoothing	0.954 **	0.994 **	0.880 **	0.953 **	0.935 **	0.928 **	0.964 **
10 Year Real Bond	2.126 **	–0.174	2.570 **	1.233	1.254 **	2.179 **	1.801 *
Inflation Forecast Gap pre–QE	2.028	7.216	1.349 **	1.931	0.573	4.972 **	4.597 **
Inflation Forecast Gap QE	–0.554	1.862	——	——	——	——	——
GDP Forecast Gap pre–QE	1.888	6.320	0.585 **	4.079 **	2.271 **	1.999 **	3.380 **
GDP Forecast Gap QE	0.258 *	–0.086	——	——	——	——	——
Observations	77	73	58	55	49	46	40

MPC / GDP Vintage	Sep-10	Jun-10	Apr-09	Dec-08	Jun-08	Mar-08	Nov-07
IR Smoothing	0.942 **	0.910 **	0.964 **	0.941 **	0.973 **	0.932 **	0.994 **
10 Year Real Bond	–0.250	–0.515	0.830	0.942	1.377	1.839 **	1.617 *
Inflation Forecast Gap pre–QE	–0.275	3.931 **	–0.677	–0.303	2.794 *	3.195 **	4.019 **
Inflation Forecast Gap QE	0.720	0.284	——	——	——	——	——
GDP Forecast Gap pre–QE	4.979 **	5.340 **	4.014 **	3.562 **	3.794 **	2.171 **	4.800 **
GDP Forecast Gap QE	–0.100	–0.149 *	——	——	——	——	——
Observations	77	73	58	55	49	46	40

Note: * and ** indicate significance at a 5% and 1% level, respectively. Newey-West (1987) standard errors are used.

Taylor Rules for the SGC and GC of the ECB in Real Time: Selected Estimates

SGC / GDP Vintage	Sep-10	Jun-10	Jun-08	Mar-08	Nov-07
IR Smoothing	0.741 **	0.960 **	1.000 **	0.956 **	0.943 **
10 Year Real Bond	1.420 **	2.044 **	–1.018	0.495	0.598
Inflation Forecast Gap	2.382 **	2.573 *	1.418	3.341 *	2.844
GDP Forecast Gap	0.425 **	0.731 **	5.758 **	2.923 **	2.520 **
Observations	52	47	28	24	20

GC / GDP Vintage	Sep-10	Jun-10	Jun-08	Mar-08	Nov-07
IR Smoothing	0.877 **	1.000 **	1.000 **	0.954 **	0.973 **
10 Year Real Bond	1.522 **	1.750	–0.642	0.526	–0.010
Inflation Forecast Gap	3.519 **	–0.938	1.478	3.374 *	7.421 *
GDP Forecast Gap	0.199 **	1.158 **	5.141 **	2.864 **	4.364 **
Observations	52	47	28	24	20

Note: * and ** indicate significance at a 5% and 1% level, respectively. Newey-West (1987) standard errors are used.

Taylor Rules Without Interest Rate Smoothing – Bank of England

Dependent Variable	SMPC Proposal	MPC Target Rate
10 Year Real Bond	2.062 **	2.019 **
Inflation Forecast Gap pre-QE	2.755 **	2.667 **
Inflation Forecast Gap QE	–1.296 **	–1.105 **
GDP Forecast Gap pre-QE	1.452 **	1.480 **
GDP Forecast Gap QE	0.686 **	0.660 **
S.E. of regression	0.892	0.887
Observations	77	77
R^2	0.803	0.809
J-statistic	0.114	0.124

Note: * and ** indicate significance at a 5% and 1% level, respectively. Newey-West (1987) standard errors are used.

Taylor Rules Without Interest Rate Smoothing – European Central Bank

Dependent Variable	SGC Proposal	GC Target Rate
10 Year Real Bond	1.509 **	1.518 **
Inflation Forecast Gap	3.615 **	3.644 **
GDP Forecast Gap	0.429 **	0.332 **
S.E. of regression	1.105	1.066
Observations	52	52
R^2	0.319	0.340
J-statistic	0.203	0.206

Note: * and ** indicate significance at a 5% and 1% level, respectively.
Newey-West (1987) standard errors are used.

Taylor Rules for Most Dovish, Median and Most Hawkish Proposals – Bank of England

Dependent Variable	SMPC Minimum	SMPC Proposal	SMPC Maximum
IR Smoothing	0.849 **	0.952 **	0.885 **
10 Year Real Bond	0.461 *	0.506	2.848 **
Inflation Forecast Gap pre–QE	3.425 **	5.796 **	2.635 *
Inflation Forecast Gap QE	0.379	0.192	4.380 **
GDP Forecast Gap pre–QE	2.872 **	5.775 **	2.005 **
GDP Forecast Gap QE	–0.058	–0.017	0.891 *
S.E. of regression	0.186	0.110	0.258
Observations	77	77	77
R^2	0.991	0.997	0.983
J-statistic	0.119	0.116	0.117

Note: * and ** indicate significance at a 5% and 1% level, respectively.
Newey-West (1987) standard errors are used.

Taylor Rules for Most Dovish, Median and Most Hawkish Proposals – European Central Bank

Dependent Variable	SGC Minimum	SGC Proposal	SGC Maximum
IR Smoothing	0.873 **	0.948 **	1.000 **
10 Year Real Bond	0.949 **	1.570 **	2.311
Inflation Forecast Gap	1.556 **	3.701 **	7.506
GDP Forecast Gap	1.900 **	2.246 **	0.447
S.E. of regression	0.127	0.135	0.207
Observations	52	52	52
R^2	0.991	0.990	0.977
J-statistic	0.171	0.184	0.155

Note: * and ** indicate significance at a 5% and 1% level, respectively.
Newey-West (1987) standard errors are used.