

**Central Bank Responses to the
Financial Crisis of 2007-08:
The Case for Further Action**

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I. What Are the Responses?

Timeline of Central Bank Responses to the Financial Crisis

Japan	United States		United Kingdom	Euro Area
	increased liquidity and expanded term loans to banks, narrowed spread on discount window loans	Aug 2007		increased liquidity and expanded term loans to banks
	increased term liquidity to banks, lowered policy rate 100 b.p.	Sep 2007 through Dec 2007	frontloaded bank reserves, widened reserve targets, increased term liquidity to banks, loan to Northern Rock, lowered policy rate 25 b.p.	frontloaded bank reserves, increased term liquidity to banks, provided dollar liquidity through Fed swaps

	increased term liquidity to banks, began term loans to primary dealers, established term securities lending, loan for Bear Stearns, lowered policy rate 225 b.p.	Jan 2008 through Apr 2008	established term securities lending, lowered policy rate 50 b.p.	increased dollar liquidity through Fed swaps
		May 2008 through Aug 2008		raised policy rate 25 b.p.
increased term liquidity to banks, supported CP market, provided dollar liquidity	increased term liquidity to banks, supported CP market, broadened collateral accepted, began	Sep 2008 through	increased term liquidity to banks, provided dollar liquidity through Fed swaps, broadened	increased term liquidity to banks, increased dollar liquidity through Fed swaps and provided swiss

through Fed swaps, increased JGB purchases, lowered fee on security lending, lowered policy rate 40 b.p.	outright purchases of agency securities, loans for AIG, Bank of America, and Citigroup, lowered policy rate 185 b.p. and guided down future expectations	Dec 2008	collateral accepted, lowered policy rate 250 b.p.	franc liquidity through SNB swaps, broadened collateral accepted, narrowed corridor between standing facilities, lowered policy rate 125 b.p.
began outright purchases of CP and short-term corporate bonds	purchased longer-term Treasury securities and expanded purchases of agency securities, began to support ABS market	Jan 2009 through May 2009	purchased longer-term gilts, corporate bonds, and CP, suspended reserve targets, lowered policy rate 150 b.p.	increased term liquidity to banks, began purchasing covered bonds, lowered policy rate 150 b.p.

Central Bank Balance Sheet Expansion

	July 2007	December 2009	Change (%)	Change (% of '08 GDP)
Fed	\$850 b.	\$2219 b.	161	9.6
ECB	€1213 b.	€1852 b.	53	6.9
BOJ	¥108 tr.	¥127 tr.	18	3.7
BOE	£80 b.	£238 b.	198	10.9

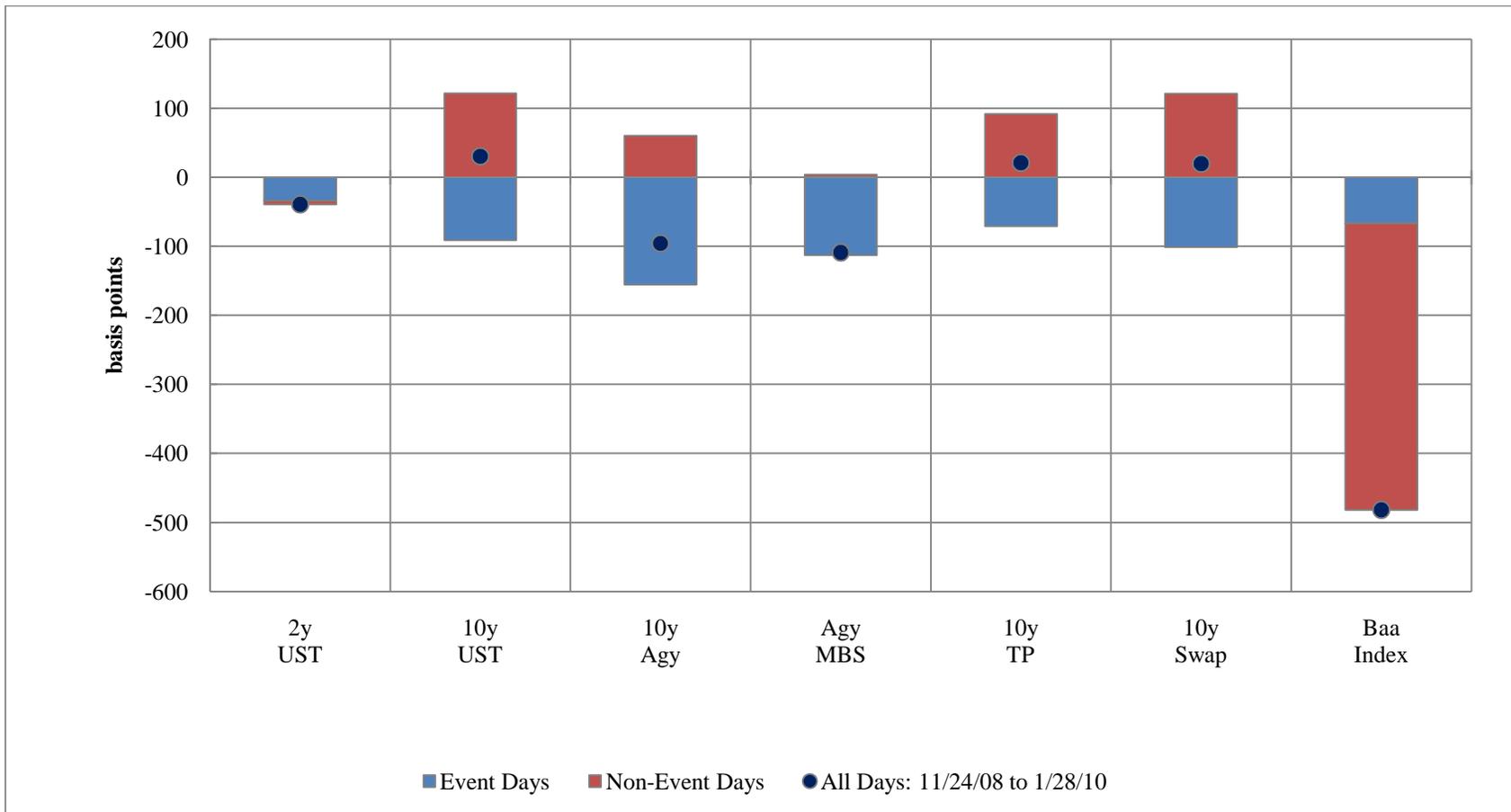
II. Is It Working?

Measures to Support Market Functioning

1. Spreads initially rose but have since declined.
2. For United States, econometric studies generally support TAF effectiveness.
3. Very large immediate reductions in spreads following CP, MBS, and ABS program announcements.
4. Consumer ABS issuance jumped from zero to near-normal levels after launch of TALF.

Measures to Push Down Borrowing Costs

1. “Operation Twist” literature is outdated.
2. Modern literature finds small but robust effects of maturity supply.
3. Market reactions to program announcements confirm a significant effect.



Interest rate movements on announcement days (blue) and other days (red), 24 November 2008 through 28 January 2010.

Source: Gagnon, Raskin, Remache, and Sack (forthcoming).

Table 5b: Total Effect of LSAPs on 10-Year Term Premium (bps)

	OLS Term Premium Model	DOLS Term Premium Model	Yield Level Model
Unadjusted	52	50	82
[95% CI]	[31 to 74]	[31 to 69]	[50 to 115]
Duration-Adjusted	38	36	58
[95% CI]	[22 to 54]	[20 to 53]	[31 to 84]

Source: Gagnon, Raskin, Remache, and Sack (forthcoming).

III. Is It Enough?

Forecasts of US economy

	Unemploy- ment Rate Q4	Excess Un- employment Q4	GDP Growth Q4/Q4	GDP Gap annual	Consumer Inflation ¹ Q4/Q4	Alternate Inflation ² Q4/Q4
2010						
FOMC ³	9.6	4.5	3.2	na	1.6	1.4
Blue Chip	9.6	3.6	2.9	na	1.8	1.4
CBO	10.0	5.0	2.1	-6.2	1.4	1.0
2011						
FOMC ³	8.3	3.2	4.0	na	1.6	1.5
Blue Chip	8.8	2.8	3.2	na	2.1	1.7
CBO	9.1	4.1	2.4	-5.9	1.1	0.9
2012						
FOMC ³	7.1	2.0	4.0	na	1.7	1.6
Blue Chip	8.3 ^Y	2.3 ^Y	3.4 ^Y	na	2.3 ^Y	1.9 ^Y
CBO	8.0 ^Y	3.0 ^Y	4.6 ^Y	-3.6	1.1 ^Y	1.0 ^Y

Sources: Board of Governors of the Federal Reserve System (FOMC), Aspen Publishers (Blue Chip), and Congressional Budget Office (CBO). Latest forecasts as of March 12, 2010.

^YDenotes whole year data.

¹CPI for Blue Chip. PCE for CBO and FOMC.

²GDP deflator for Blue Chip. Core PCE deflator for CBO and FOMC.

³Midpoint of central tendency.

Forecasts of UK Economy

	GDP Growth Q4/Q4	Consumer Inflation Q4/Q4
2010		
BOE - Market	2.5	1.7
BOE - Constant	2.6	1.7
Consensus	2.2	1.8
Commission	1.1	1.5
2011		
BOE - Market	3.0	1.4
BOE - Constant	3.6	1.8
Consensus	2.2 ^Y	1.7 ^Y
Commission	2.4	1.7
2012		
BOE - Market	2.8	2.0
Consensus	1.9 ^Y	2.1 ^Y

Note: BOE-Market forecast assumes market path of policy rate. BOE-Constant forecast assumes policy rate constant at 0.5 percent. BOE-Constant forecast not available for 2012. Consensus forecast for 2012 from October 2009. Commission forecast for 2011 from November 2009. ^Y denotes annual average data.

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- CB actions have had clear benefits.
- Standard analysis calls for further stimulus.
- Nontraditional actions are not completely filling in the gap.
 - BOE seems to disagree.
- Biggest policy shortfall is in euro area and Japan.