Fifty ways to leave your lover

How central banks talk to markets
and defy theory

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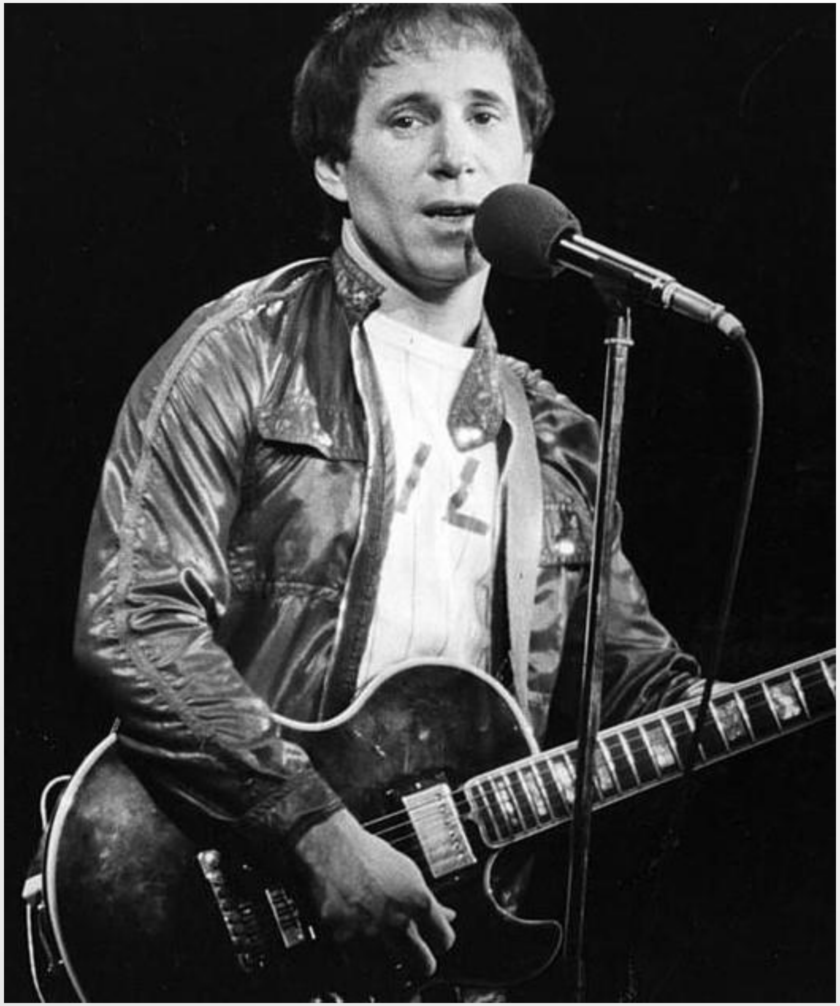
50 ways to leave your lover

-- Paul Simon, 1975



- Just slip out the back, Jack
- Make a new plan, Stan
- Don't need to be coy, Roy
- Hop on the bus, Gus

Four ways to communicate monetary forward guidance to markets

- **Make a new plan, Stan**
  - ✓ Odyssean: commit to a plan and announce it
- **Just slip out the back, Jack**
  - ✓ Delphic: act on inside information
- **You need to be coy, Roy**
  - ✓ Greenspan: "… mumble with great incoherence"
- **Hit me with a bus, Gus**
  - ✓ Bernanke's shining moment in March 2009

The received theory

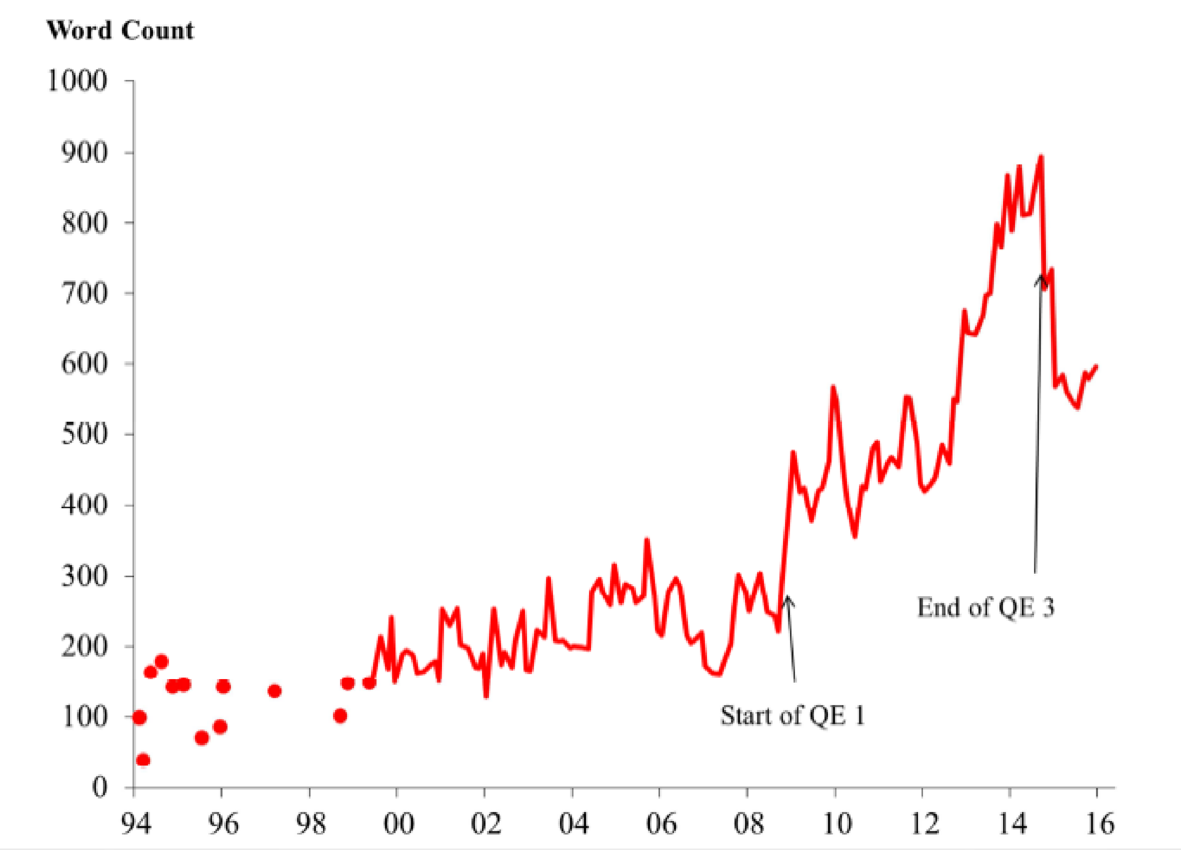
- **Full transparency**
  - Blinder, Ehrmann, Fratzscher, de Haan and Jansen (2008): Central bank must communicate to make itself predictable and thus make market reaction predictable
- **Time consistency**
  - Kydland and Prescott (1977): Spring no policy surprises because they are time inconsistent

Make a new plan, Stan: The long and short of it

- **US Federal Reserve**
  - **Short**: FOMC Statement 300-400 words, released at 2 pm on scheduled Wednesday, 8 times a year
  - **Long**: Projection Materials, 1 table, 2 charts, released with every other FOMC Statement
- **Reserve Bank of New Zealand**
  - **Short**: OCR Announcement, 300-350 words, released 8 times a year
  - **Long**: Monetary Policy Statement, 6900-8300 words plus graphs and tables, 4 times a year
- **BSP**
  - **Short**: Media Release, 311 words, released with MB policy decision
  - **Long**: Inflation Report, 47 pages, released quarterly

Make a new plan, Stan (but please keep your statement short)

Word count of FOMC statements since 1994



Feroli, Greenlaw, Hooper, Mishkin, Sufi (2016): Language after liftoff: Fed communication away from the zero lower bound. US Monetary Policy Forum (February).

The long and short of it

The RBNZ's OCR Announcement and Monetary Policy Statement

Decision date in 2018-2019	**Form of communication**	**Number of words**	**Number of figures/tables**
November 9	OCR announcement	306	0/0
	Monetary Policy Statement	8257	47/4
September 28	OCR announcement	279	0/0
August 10	OCR announcement	300	0/0
	Monetary Policy Statement	7406	50/4
June 22	OCR announcement	302	0/0
May 11	OCR announcement	327	0/0
	Monetary Policy Statement	7503	44/4
March 23	OCR announcement	307	0/0
February 9	OCR announcement	305	0/0
	Monetary policy statement	6965	47/4

Just slip out the back, Jack

Sometimes, forward guidance is Delphic

- **Nakamura and Steinsson (2018) find a puzzle**
  - ✓ In response to an interest rate hike, nominal and real interest rates increase roughly one-for-one, several years out into the term structure …
  - ✓ At the same time, forecasts about output growth also increase — the opposite of what models imply
- **… and resolve it**
  - ✓ The market suspects the Fed knows something it doesn't

Just slip out the back, Jack

Ten biggest FOMC events for US 10-year yield since 2000

Date of event	Scheduled FOMC meeting?	Easing or tightening?	Change in 10-year yield (basis points)
18 Mar 2009	Yes	Easing	- 47.4
16 Dec 2008	Yes	Easing	- 25.7
3 Jan 2001	No	Easing	24.3
25 Nov 2008	No	Easing	- 21.6
22 Jan 2008	No	Easing	- 19.6
1 Dec 2008	Austin speech	Easing	- 18.9
11 Dec 2007	Yes	Easing	- 18.7
18 Mar 2008	Yes	Easing	17.7
27 Aug 2010	Jackson Hole	Easing	16.8
19 Jun 2013	Yes	Tightening	16.7

Exactly what happened in January 2008?

- **FOMC, 22 January 2008**
  - ✓ The Federal Open Market Committee has decided to lower its target for the federal funds rate 75 basis points to 3-1/2 percent.
  - ✓ The Committee took this action in view of a weakening of the economic outlook and increasing downside risks to growth …
- **New York Times, 24 January 2008**
  - ✓ **Société Générale loses $7 billion in trading fraud**
  - ✓ **PARIS —** Société Générale, one of the largest banks in Europe, … revealed that a rogue employee had executed a series of "elaborate, fictitious transactions" that cost the company the biggest loss ever recorded in the financial industry by a single trader.

You need to be coy, Roy I

Communicate merely by planting a clue

- May 1, 2019 FOMC Statement (319 words):
  - ✓ In light of global economic and financial developments and muted inflation pressures, the Committee will be patient as it determines what future adjustments to the target range… may be appropriate …
- June 19, 2019 FOMC Statement (356 words):
  - ✓ In light of these uncertainties and muted inflation pressures, the Committee will closely monitor the implications of incoming information … and will act as appropriate to sustain the expansion …

Other central banks seem to know the drill

Tying Odysseus to a toothpick

- **RBA, Statement by Phil Lowe,** 2 July 2019 (511 words)
  - ✓ The Board will continue to monitor developments in the labour market closely and adjust monetary policy if needed to support sustainable growth in the economy and the achievement of the inflation target over time.
- **BSP, Media Release,** 8 August 2019 (311 words)
  - ✓ Going forward, the BSP will continue to monitor price and output conditions to ensure that monetary policy remains appropriately supportive of sustained non-inflationary economic growth over the medium term..
- **Bank of Thailand, Press Release,** 26 June 2019 (740 words)
  - ✓ The Committee would continue to monitor developments of economic growth, inflation, and financial stability …

Why so coy?

What if the market is driven by a Keynesian beauty contest?

- John Maynard Keynes (1936):
  - "It is not a case of choosing those that … are really the prettiest, nor even those that average opinion genuinely thinks the prettiest… [W]e devote our intelligences to anticipating what average opinion expects the average opinion to be."
- Morris and Shin (2002):
  - "[Public information] serves as a focal point for the beliefs of the group as a whole."
  - In the end, "Agents overreact to public information, and thereby magnify the damage done by any noise"

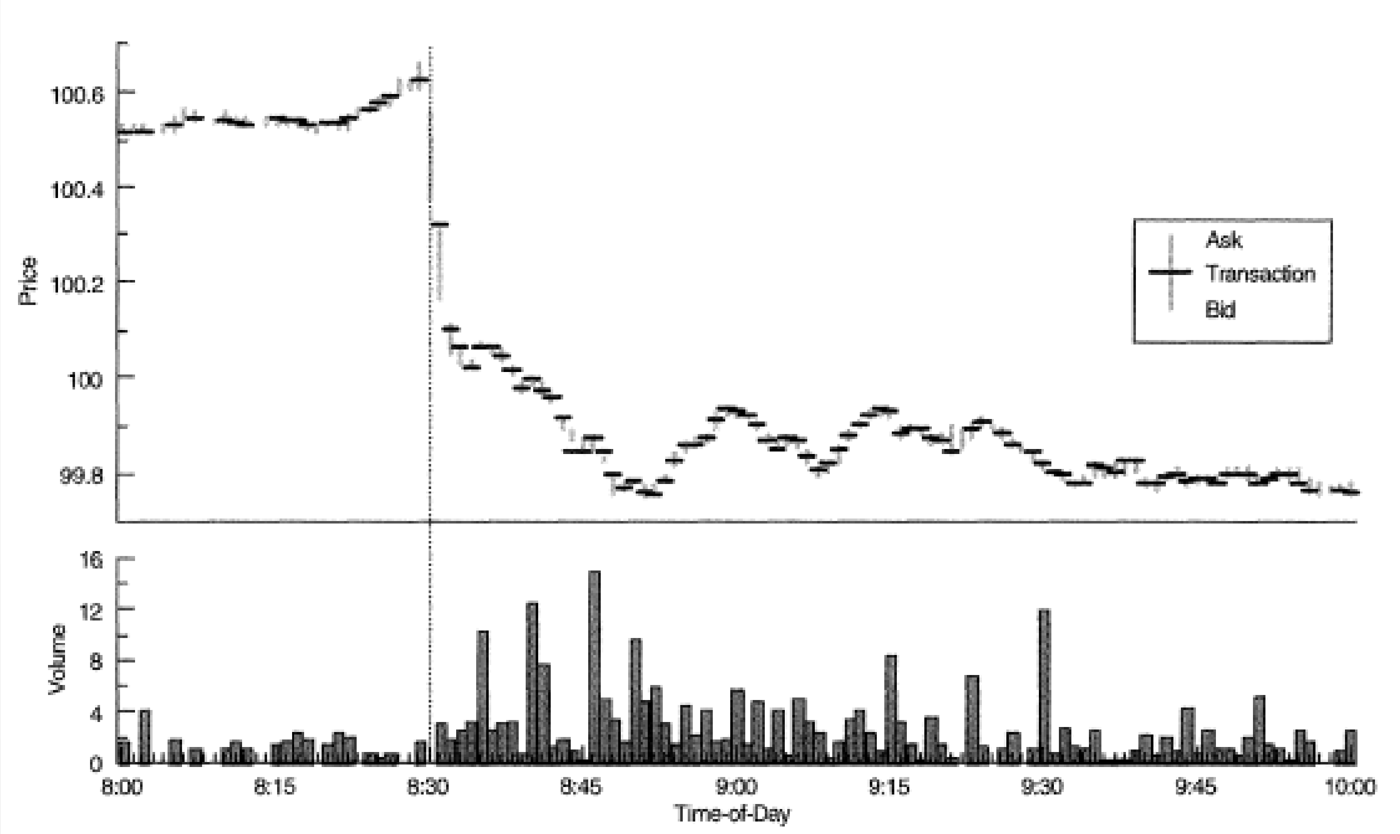

In beauty-contest market, the central bank would see itself playing the monkey in the mirror

Avoiding the monkey in the mirror

- Market should aggregate dispersed information
  - But in beauty-contest market, a strong signal from central bank becomes dominant focal point
  - The market exaggerates importance of that single source of information, thus creating the *money in the mirror*
- A coy central bank can restore market's informational role
  - Imprecision would downgrade signal's role as focal point
  - Market's reaction would convey independent information to central bank

It helps to send imprecise signal on precise schedule

Price of 5-year US Treasury note on an Employment Report day in market that is fast to react



Source: Fleming and Remolona (1999): Price formation and liquidity in the US Treasury market: The response to public information, *JF* (October).

You need to be coy, Roy II

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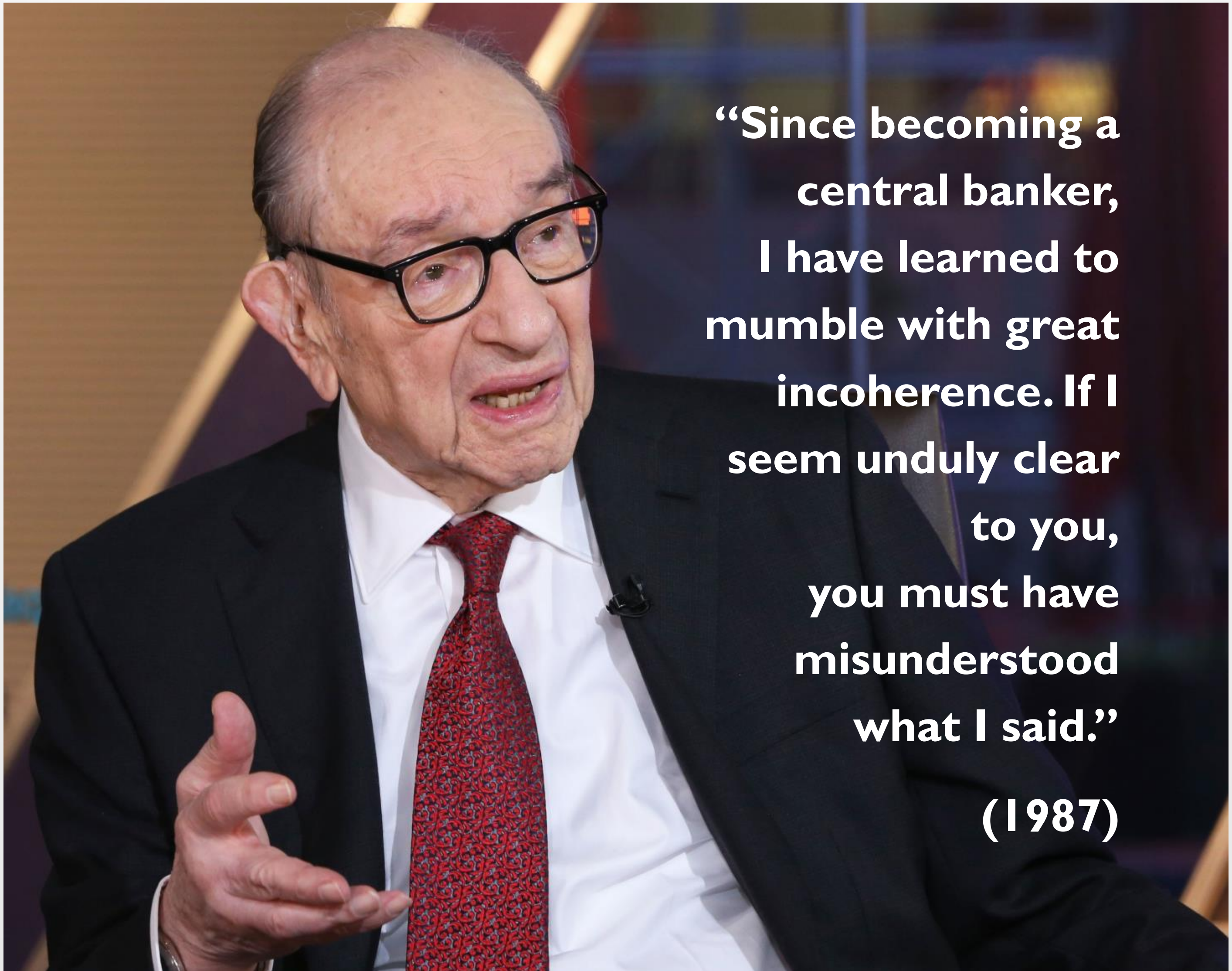
The not so coy Fed Chairman

Testimony by Ben Bernanke before the Joint Economic Committee of the U.S. Congress, May 22, 2013

- **Transparent Ben**: In 7-page statement: "… a premature tightening [would] carry a substantial risk of slowing or ending the economic recovery."

- **Candid Ben**: In response to a question by Congressman Brady about acting before Labor Day, **"[The Fed] could take a step down in the next two meetings."**

The coy Mr. Greenspan



Hit me with a bus, Gus

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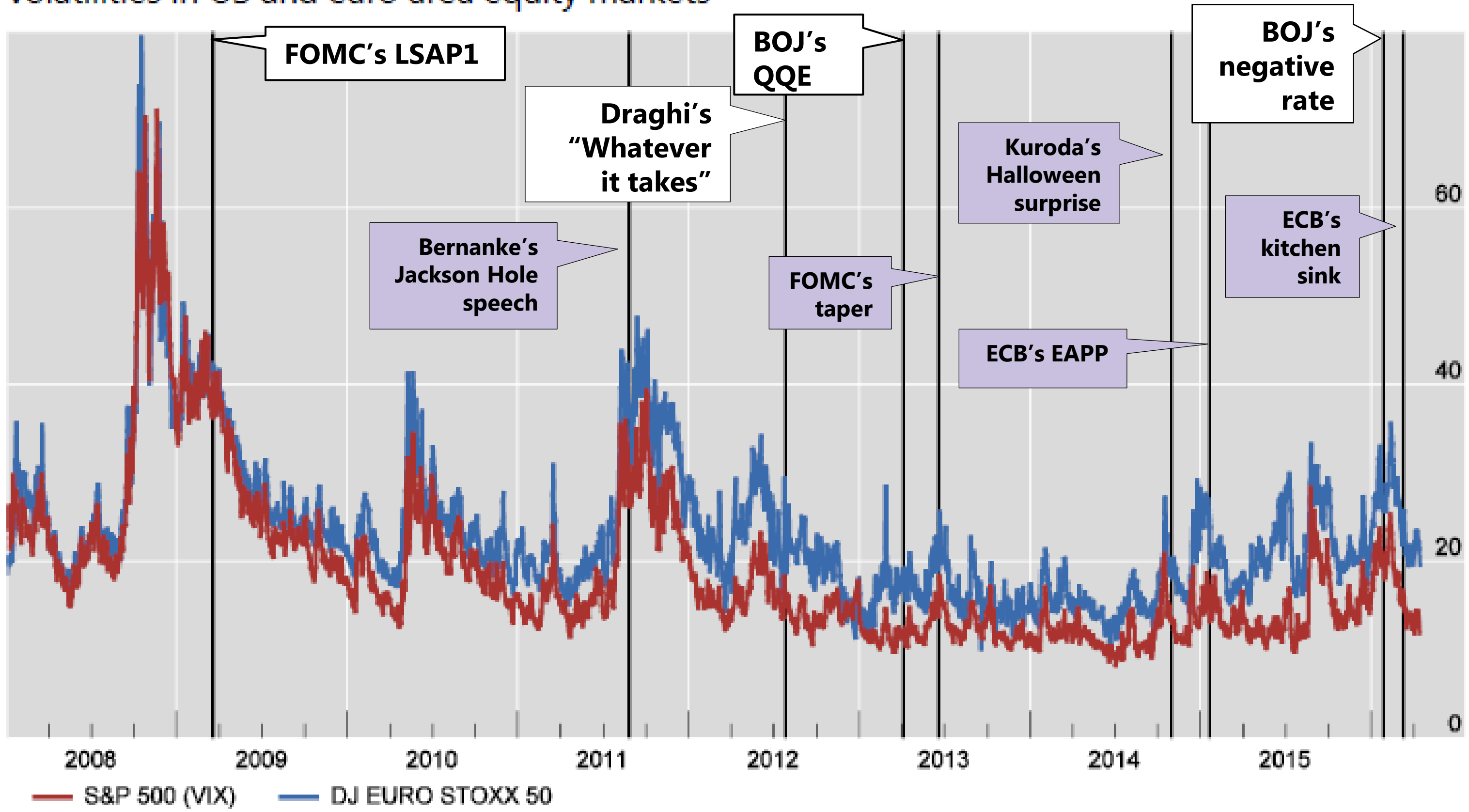
Should a central bank spring a surprise on purpose?

- **No, because it's time inconsistent**
  - ✓ Kydland and Prescott (1977): "… not a game against nature but … a game against rational economic agents"
  - ✓ It becomes harder and harder to surprise markets
- **Yes, because beauty-contest market can focus on false narrative**
  - ✓ If stuck in bad equilibrium, a big surprise can jolt market into moving to a good one
  - ✓ In March 2009, Fed faced market caught up in narrative that said central banks had run out of ammunition

In wake of crisis, policy surprises became a thing

Fed, ECB, BOJ try to think outside the box

Nine surprises in unconventional monetary policy announcements and implied volatilities in US and euro area equity markets



Defying theory: each in its own time and place

- **Make a new plan, Stan**
  - ✓ In normal times, plant a clue to make market reaction predictable
- **You need to be coy, Roy**
  - ✓ Be coy to make market reaction informative
  - ✓ Mitigate overreaction by “mumbling with great incoherence”
- **Just slip out the back, Jack**
  - ✓ When situation is urgent, let your actions speak
- **Hit me with a bus, Gus**
  - ✓ When markets misbehave, shock them into behaving

Thank you

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