A Look at Previous Fed "Tightening" Episodes

Presentation to the Georgia State University Forecasting Conference

Atlanta, GA

Kevin L. Kliesen

Federal Reserve Bank of St. Louis

May 20, 2015

Not an official document

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Outline of Talk

- Institutional Factors.
- Lift-off in 2015? Not Whether But When?
- How Does Monetary Policy Affect Financial Markets and the Real Economy? Some Basic Economics.
- Evidence from Previous Fed Tightening Episodes.

Disclaimer

The views I will express are my own and do not necessarily reflect the positions of the Federal Reserve Bank of St. Louis or the Federal Reserve System.

Motivation

"Like most of my FOMC colleagues, I believe that the appropriate time has not yet arrived, but I expect that conditions may warrant an increase in the federal funds rate target sometime this year."

(Chair Yellen, Speech, March 27, 2015)

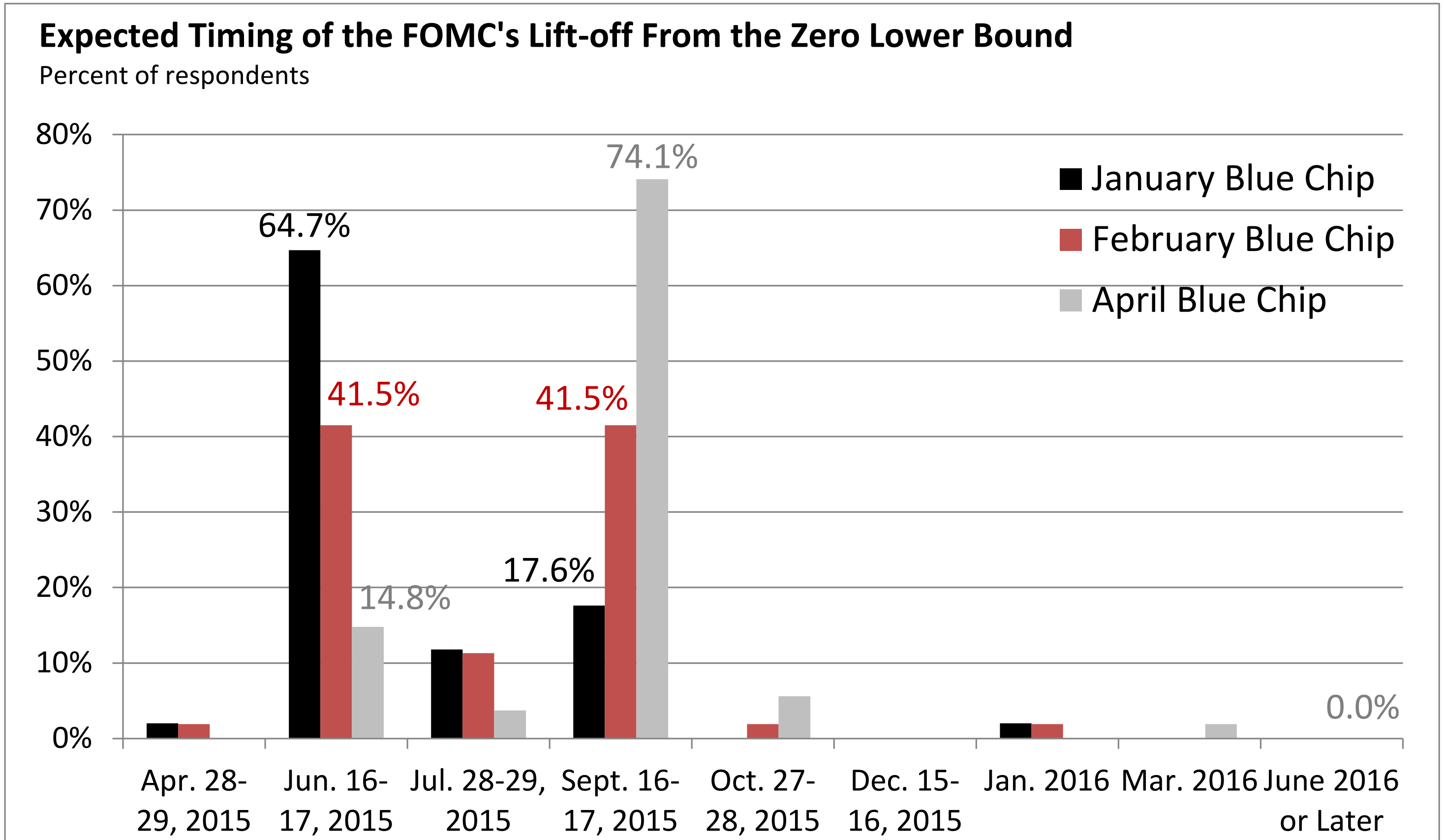
Institutional Factors

- The "anguish of central banking": The FOMC's decision to raise the federal funds target often "evoked violent criticism" of its actions.
- The Fed is often accused of running a policy that favors financial markets (Wall Street) at the expense of the public and savers (Main Street).
- Maintaining price stability sometimes requires making unpopular—but wise—decisions.

Institutional Factors

- Historically, the decision to raise the federal funds target is generally much more difficult than the decision to lower the target.
- Timing the lift-off is always an issue that is intensely debated—both internally and externally.
- And we see that debate played out today, as well.

The Majority of Blue Chip Forecasters Now Expect a September 2015 Lift-Off.

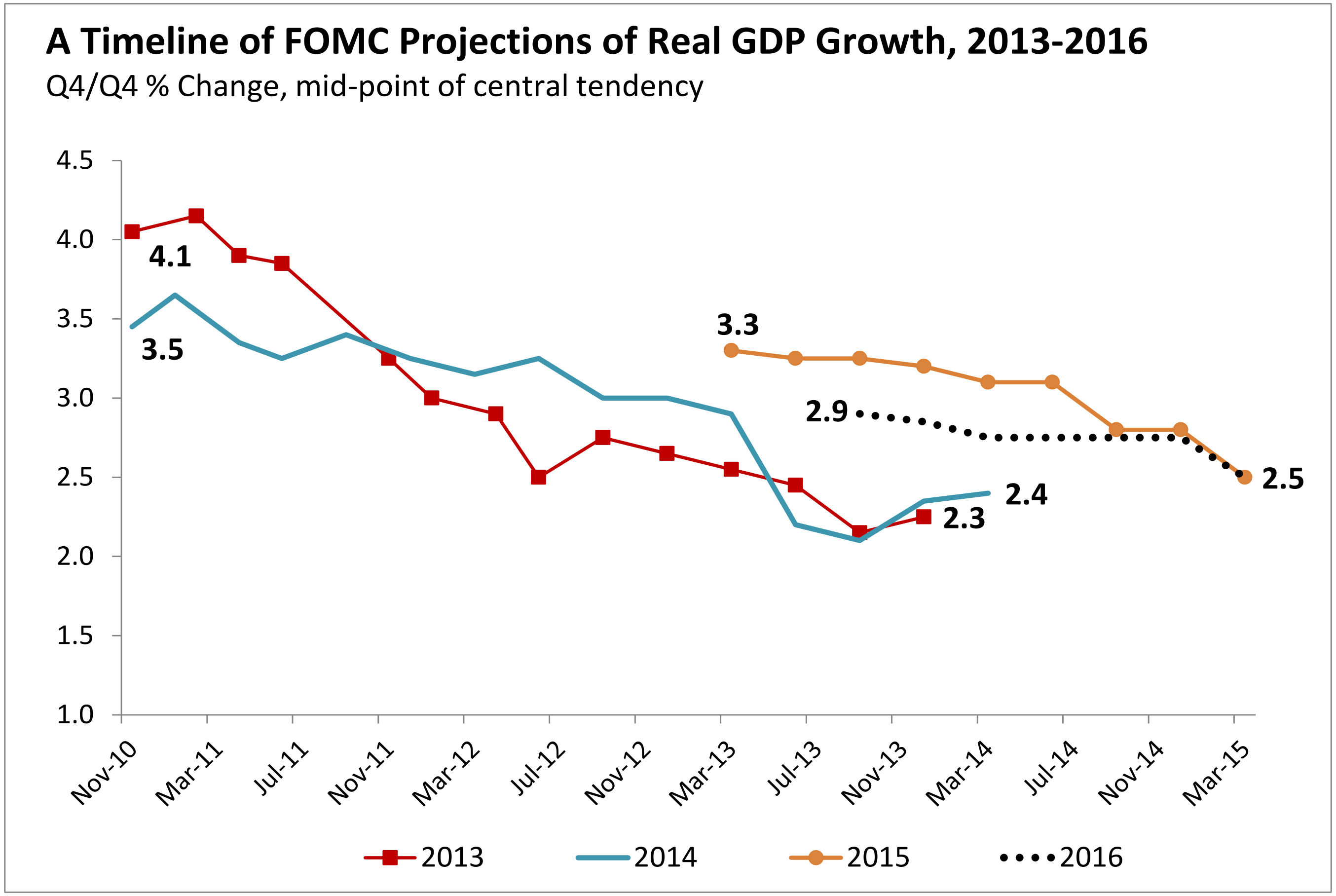


SOURCE: Blue Chip Economic Indicators, January 10 and February 10, 2015

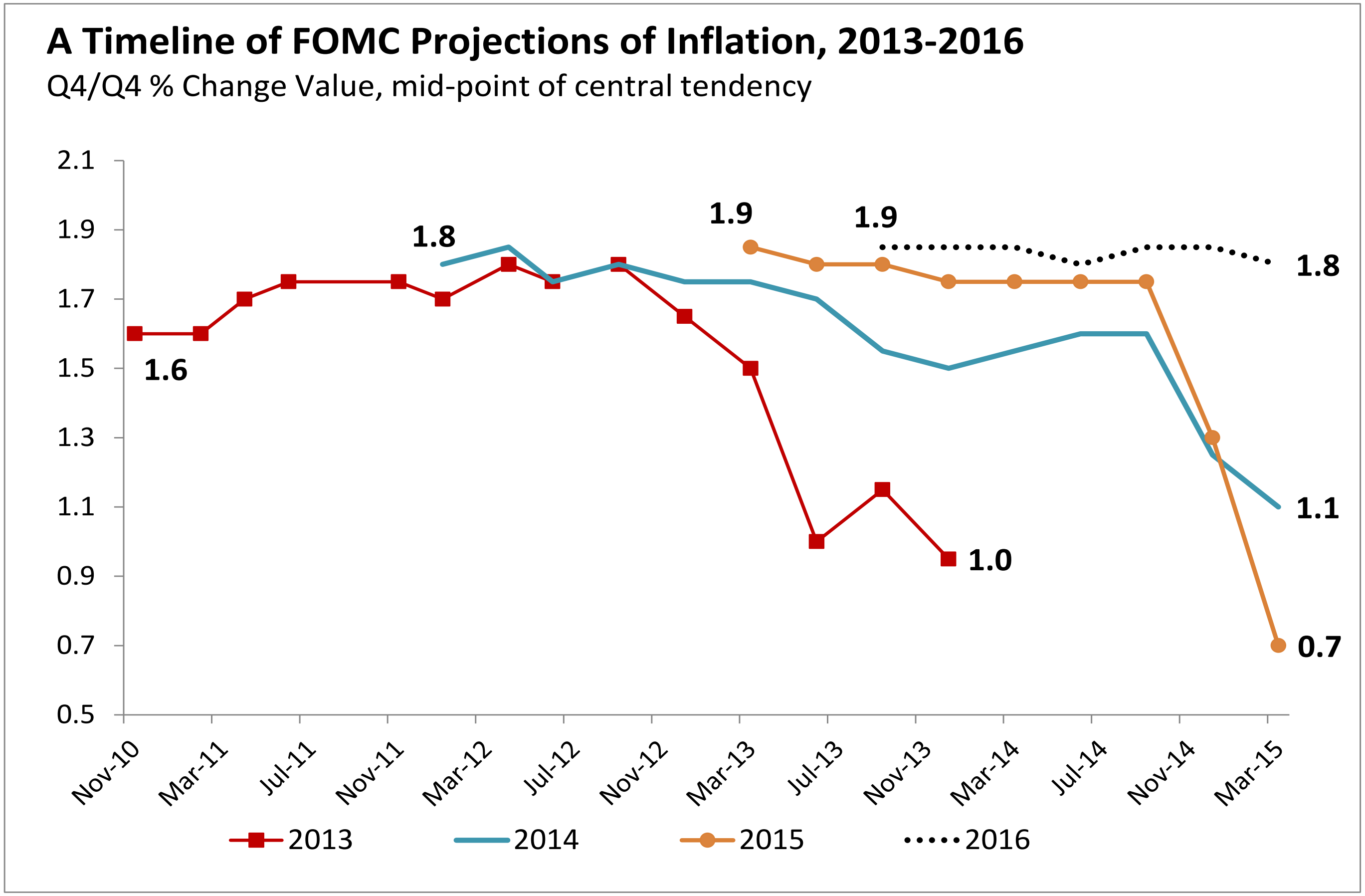
Lift-off in 2015?

- The FOMC removed the "patience" language at the March 17-18 meeting.
- "Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning." (Winston Churchill)
- But the Fed's projections also indicated much less tightening from 2015 to 2017.

Uncooperative data! The Fed and private forecasters have been too optimistic.



Inflation has also been much weaker than the FOMC has expected.



Yellen: Don't Wait for 2% Inflation

- "I would <u>not</u> consider it prudent to postpone the onset of normalization until we have reached, or are on the verge of reaching, our inflation objective."

- History suggests that monetary policymakers have in the past stayed too easy for too long.

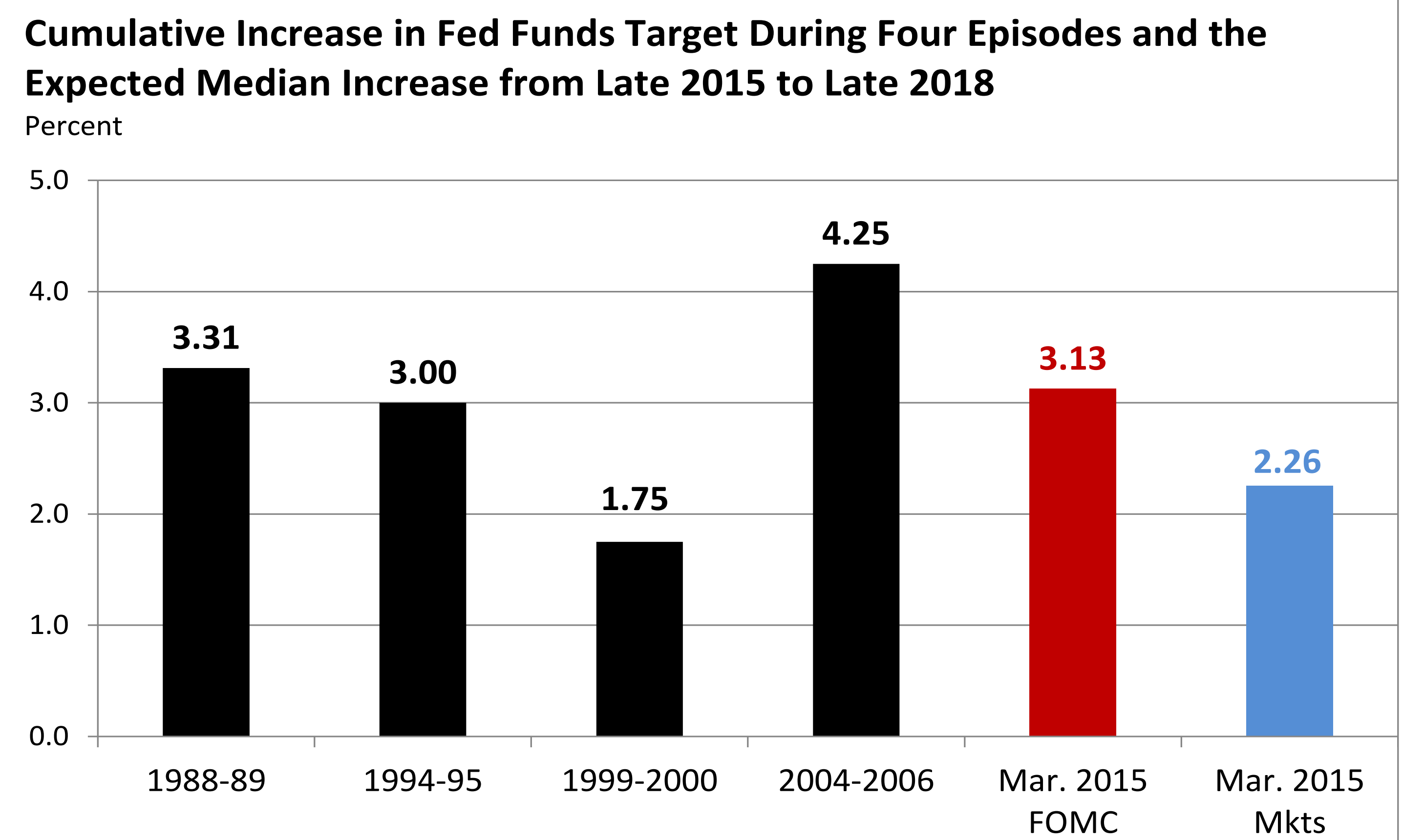
- The 1970s and the early 2000s are the most poignant examples.

How Does Monetary Policy Affect the Economy: Traditional Channels

- Spending on interest-sensitive goods
- Bank lending
- Firm balance sheets
- Household net worth
- Asset prices

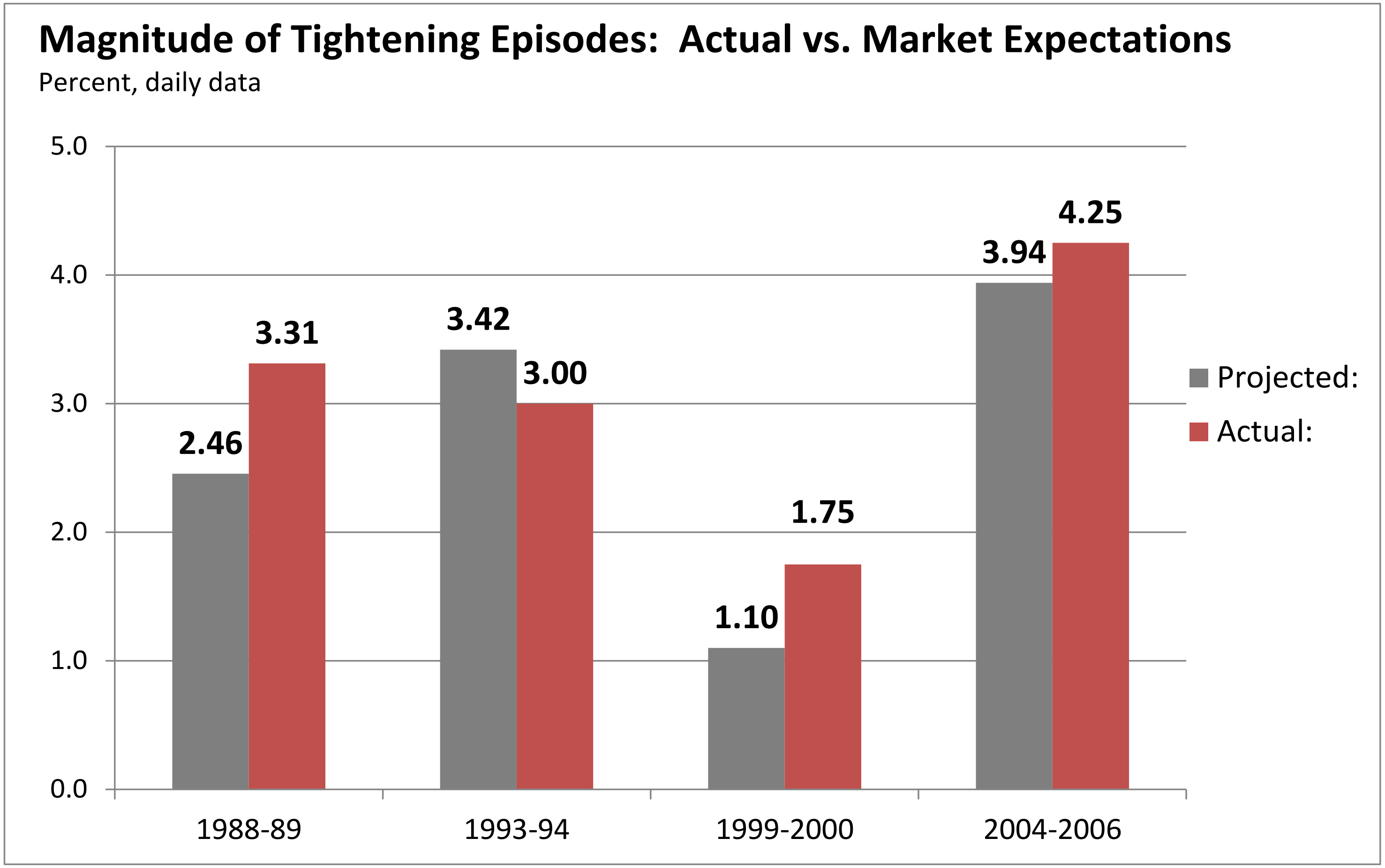
How Did Past Episodes of Monetary "Tightening" Affect Financial Markets and the Real Economy?

Cumulative Rate Increases Were the Largest in the 2004-2006 Episode.



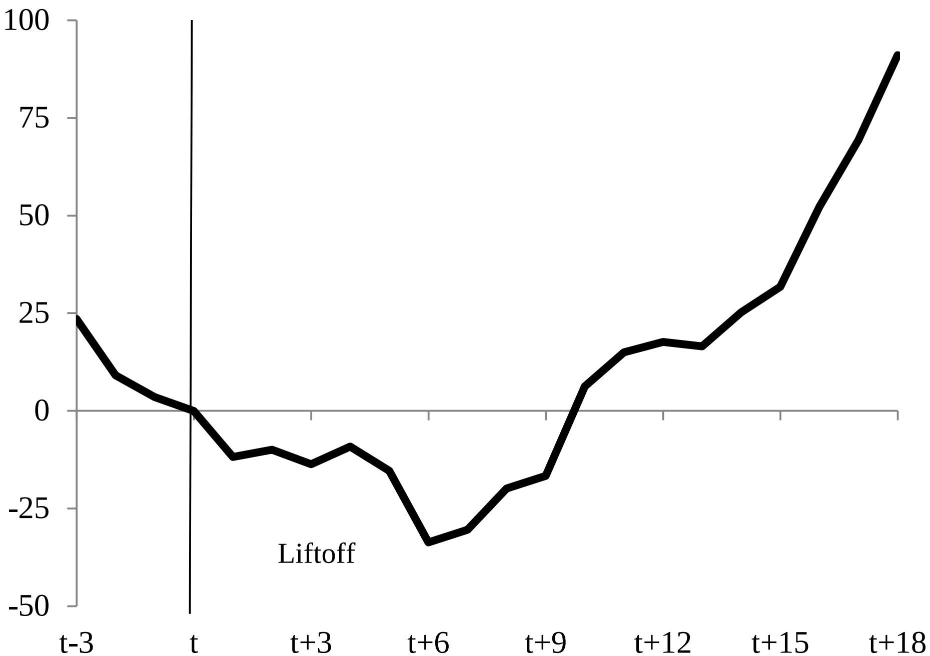
SOURCE: Author's calculations, Federal Open Market Committee (March 2015) and Primary Dealer Survey (March 2015).

Markets Generally Have Underestimated the Magnitude of FOMC Tightening.



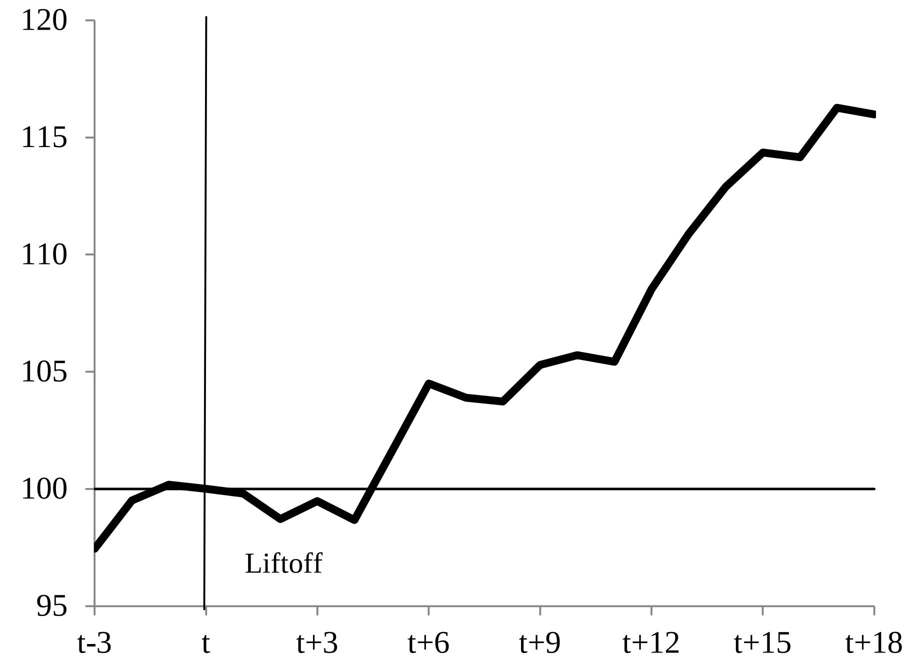
Credit Risk Spreads and Stock Prices Generally Fall Early in the Tightening Period. Risk spread rises later.

Corporate Yield Spread
Basis Points



Source: Moody's, BoAML/Haver Analytics

S&P 500 Index
Index (t=100)

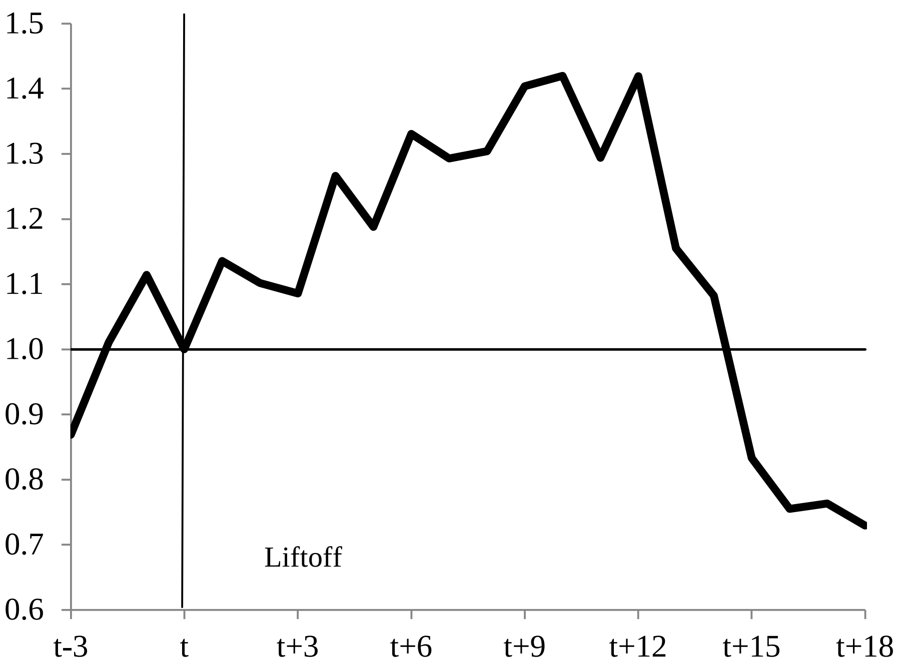


Source: FT/Haver Analytics

Industrial Production and Real Consumer Spending Declines About a Year or so after the Lift-Off.

Industrial Production Growth (Relative to Lift-Off)

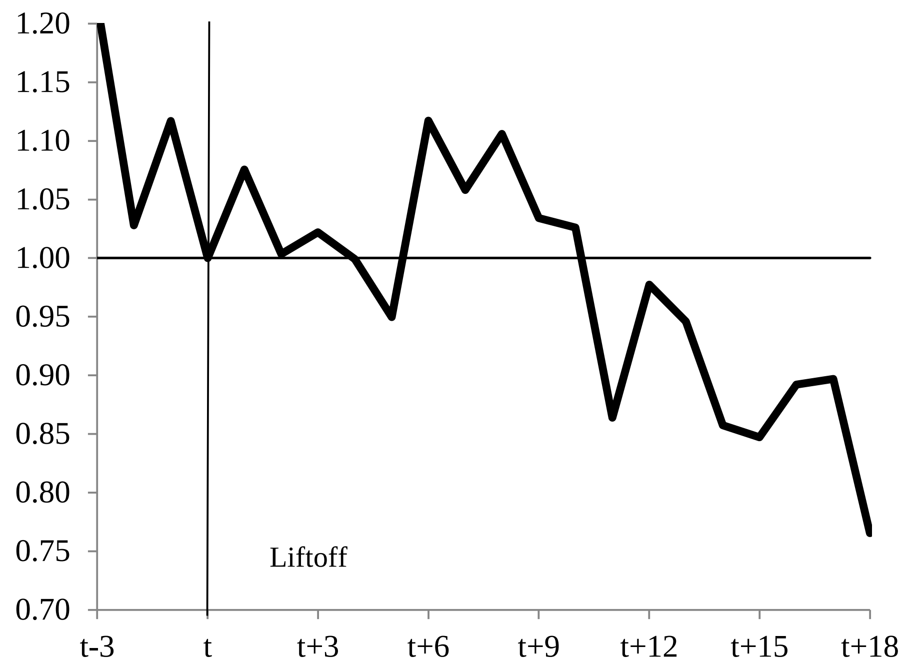
Indexed Year/Year % Change, (t=1)



Source: FRB/ Haver Analytics

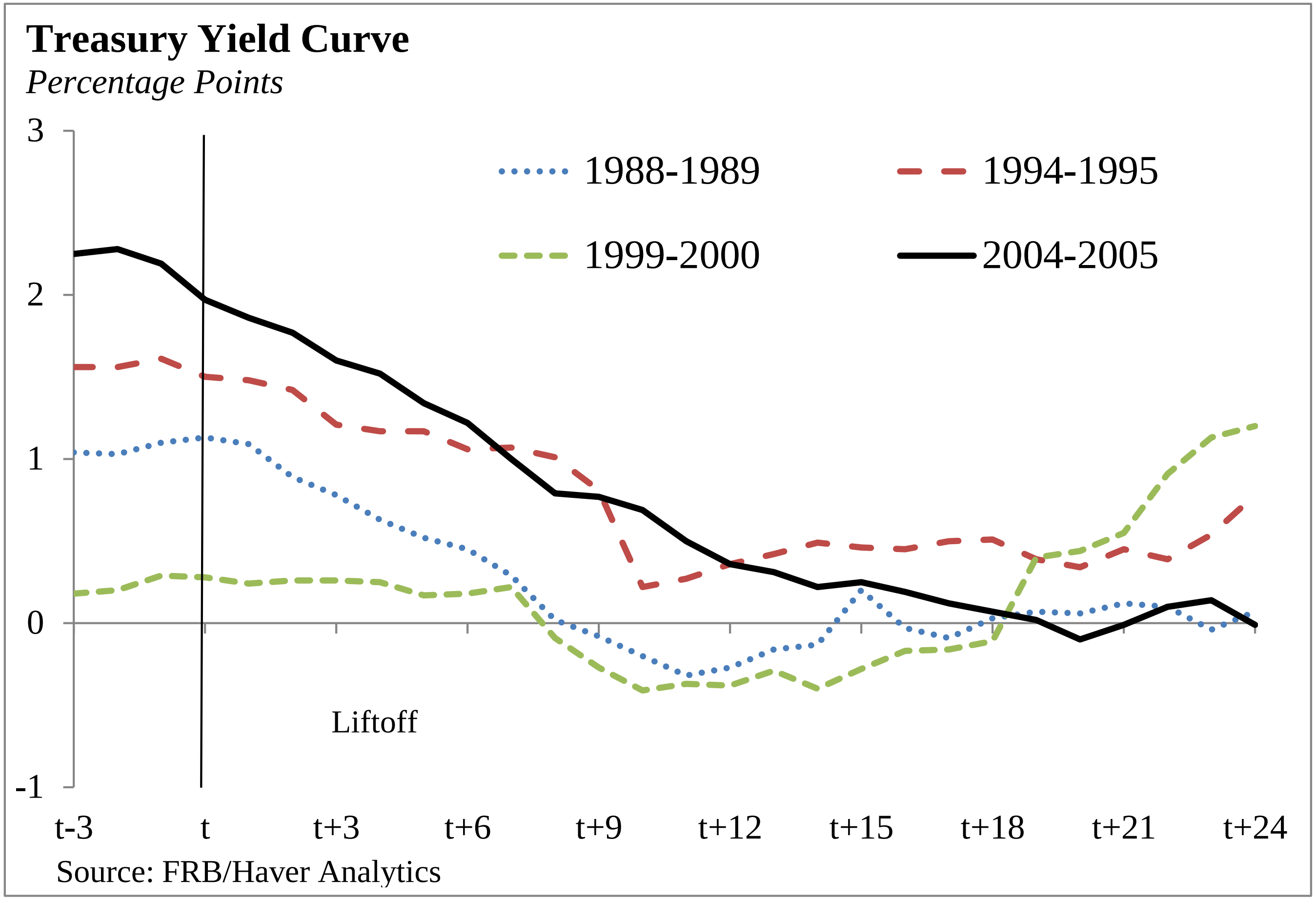
Real Consumption Growth (Relative to Lift-Off Month)

Indexed Year/Year % Change, (t=1)



Source: BEA/ Haver Analytics..

In Three of the Four Episodes, the Yield Curve Inverted After About a Year.



Summarizing Key Findings

- Markets tend to under-estimate the magnitude and persistence of tightening episodes.
- The economy generally improves during the first year of the tightening, but then gives way to slower growth.
- Stock prices tend to peak after the economy begins to slow.
- The yield curve inverted in three of the four episodes.

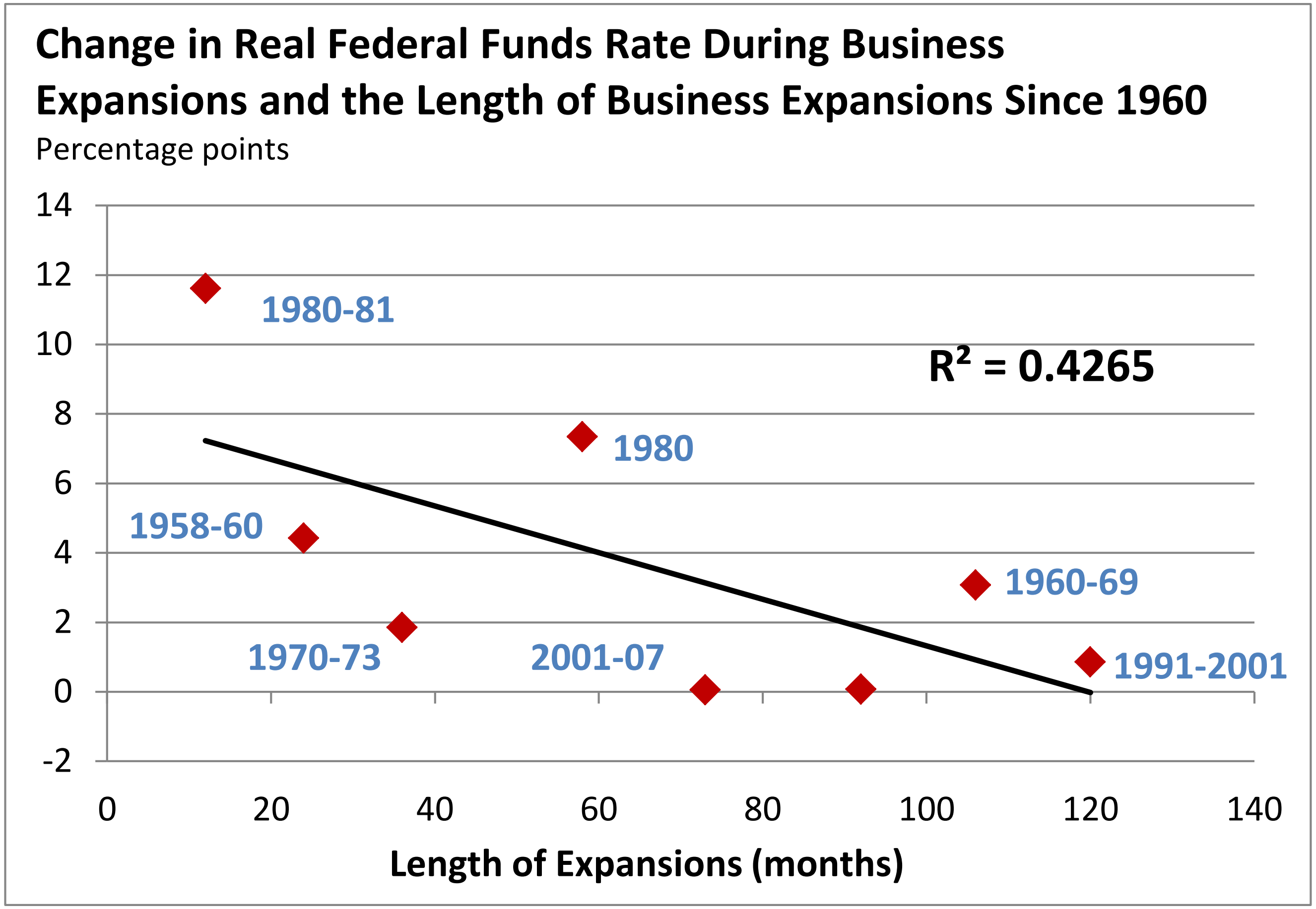
Will the "Average" Prevail This Time?

- History suggests that long expansions with low inflation tend to have smaller increases in the Fed's policy rate.
- Thus, keeping inflation low and stable is key!
- But history also suggests that each tightening cycle depends significantly on underlying economic conditions.
- Oil shocks have been important in the past.

Will the "Average" Prevail This Time?

"The average pace of tightening observed during previous recoveries could well provide a highly misleading guide to the actual course of monetary policy over the next few years."
(Chair Yellen, March 27, 2015)

On Average, the Longer the Expansion the Smaller the Increase in the Real FFR.



About a Year Elapses After the Final Tightening and the Expansion Peak.

Episode	First Tightening	Final Tightening	Duration	Total Tightening	Business Cycle Peak	Interval Between Last Tightening and Peak
	(Date)	(Date)	(Months)	(basis points)	(Date)	(Months)
(1)	April 1988	May 1989	14	331	July 1990	14
(2)	Feb. 1994	Feb. 1995	13	300	N/A	N/A
(3)	June 1999	June 2000	13	175	March 2001	9
(4)	June 2004	July 2006	26	425	Dec. 2007	17
		Medians:	**13.5**			**14**

SOURCE: Author's calculations

Key Takeaways

- The Fed's decision is to tighten is generally more difficult than the decision to ease.

- Financial market participants and a majority of the FOMC expect lift-off to occur sometime this year—though the data will tell us when and how much.

- Previous Fed tightening episodes revealed that markets generally under-estimated the amount of tightening.

QUESTIONS?