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Fixed Income Research

Some comments on market perceptions of alternative monetary policy frameworks:

Presentation to the Federal Reserve Bank of Chicago's Academic Advisory Council

US Economics

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See Appendix A-1 for analyst certification, important disclosures and the status of non-US analysts.

Any authors named on this report are research analysts unless otherwise indicated.

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What is this about?

- There is some confusion among market participants around the objective of the Fed’s “Review of Monetary Policy Strategy, Tools, and Communications”
- Two problems related to low neutral rates
  - Too-low inflation and inflation expectations
  - Providing accommodation through more effective forward guidance at the lower bound
- Market attention has focused on inflation
  - This seems more immediate
  - Primary interest has been from TIPS investors
  - Fedspeak on this has been inconsistent
- The problem of forward guidance at the lower bound has gotten less attention
  - This is obviously important
  - But in the next recession investor expectations will be shaped by the experience of 2010-2019.

Source: Federal Reserve, Nomura Economics

Long-term trends in inflation

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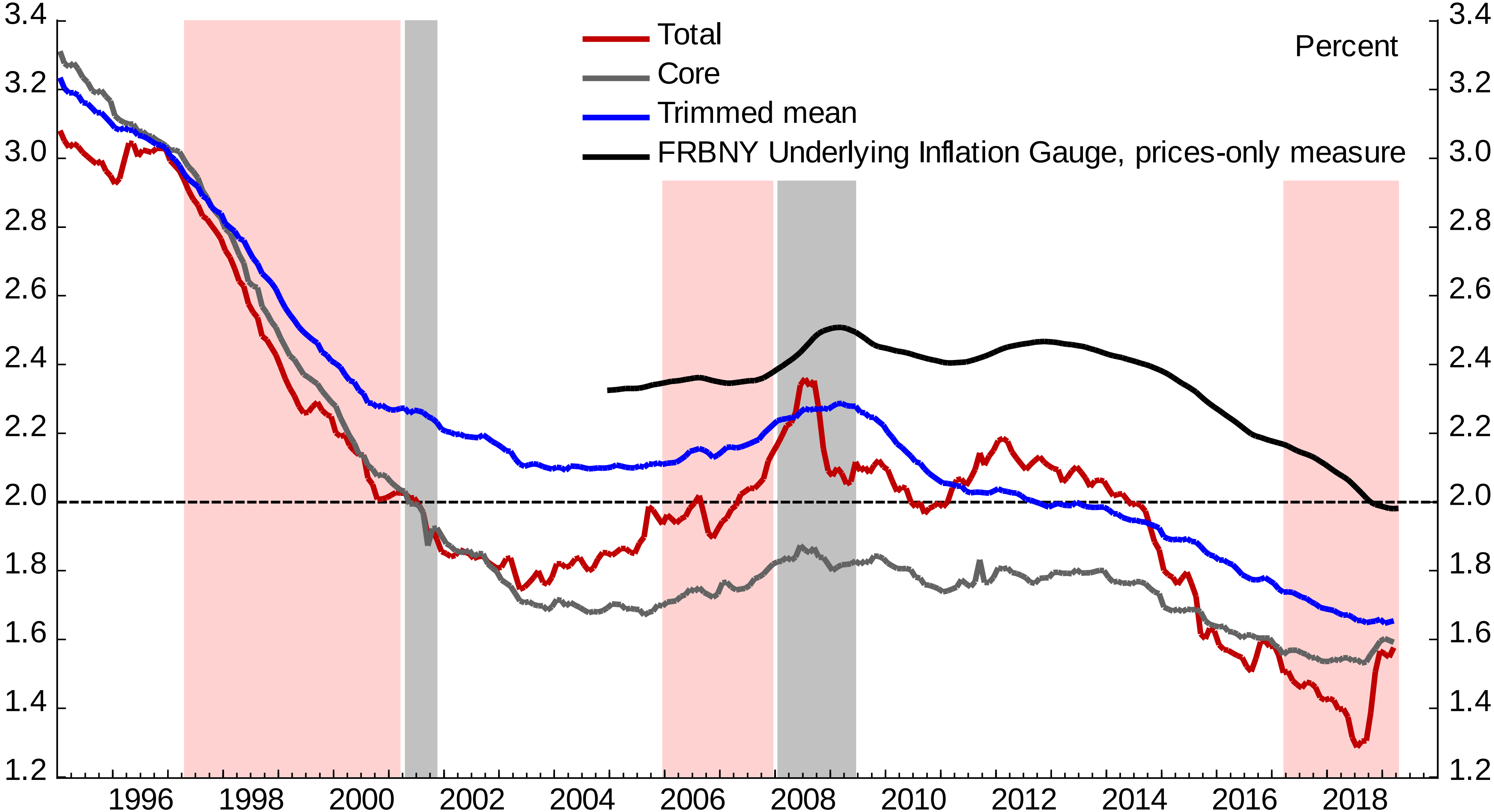
10-year moving averages of alternative measures of inflation



Source: Haver, Federal Reserve, Nomura Global Economics

Inflation expectations over the cycle

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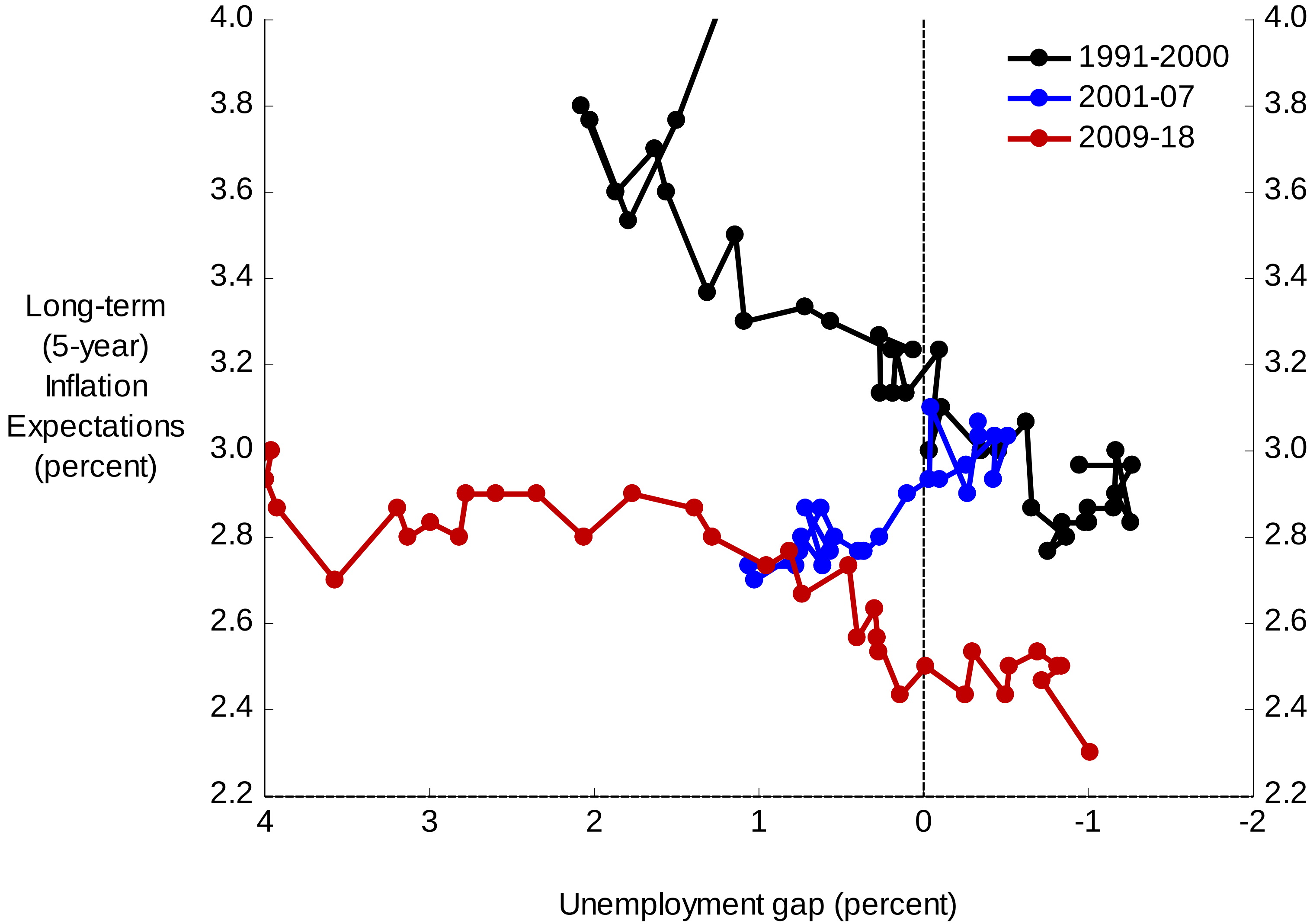
Long-term inflation expectations over recent expansions



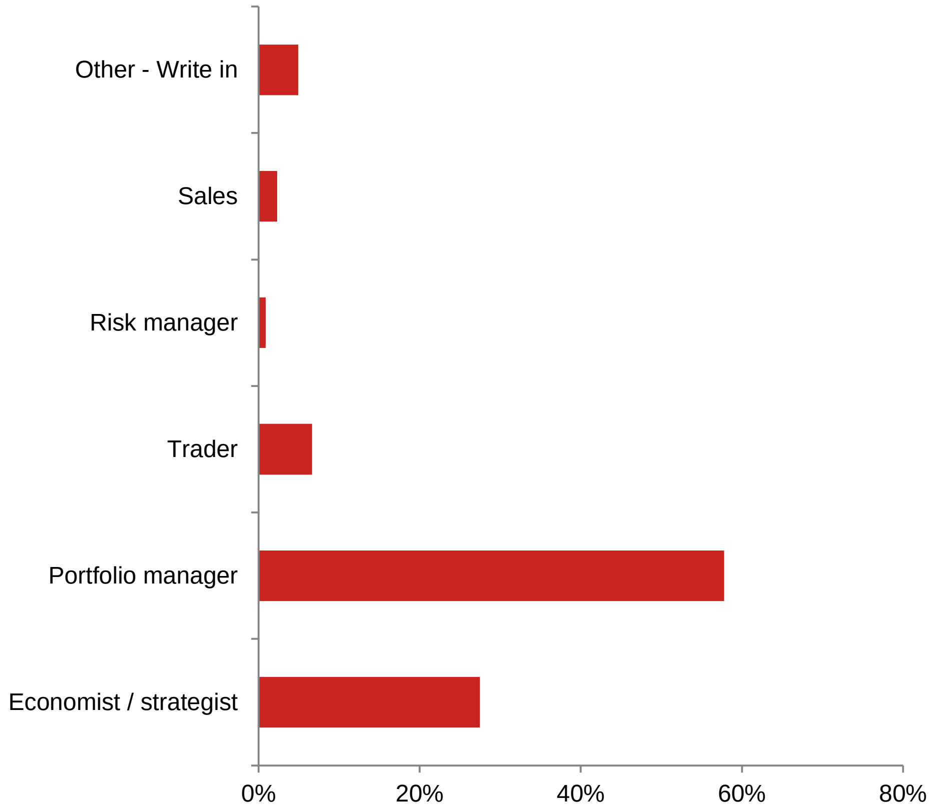
Source: University of Michigan, BLS, CBO, Nomura

Morgan Stanley survey of investors

- **Morgan Stanley surveyed 350 investors over the week of April 11-17**
- **At that time the preponderance of this group did expect some change in the Fed's inflation strategy**

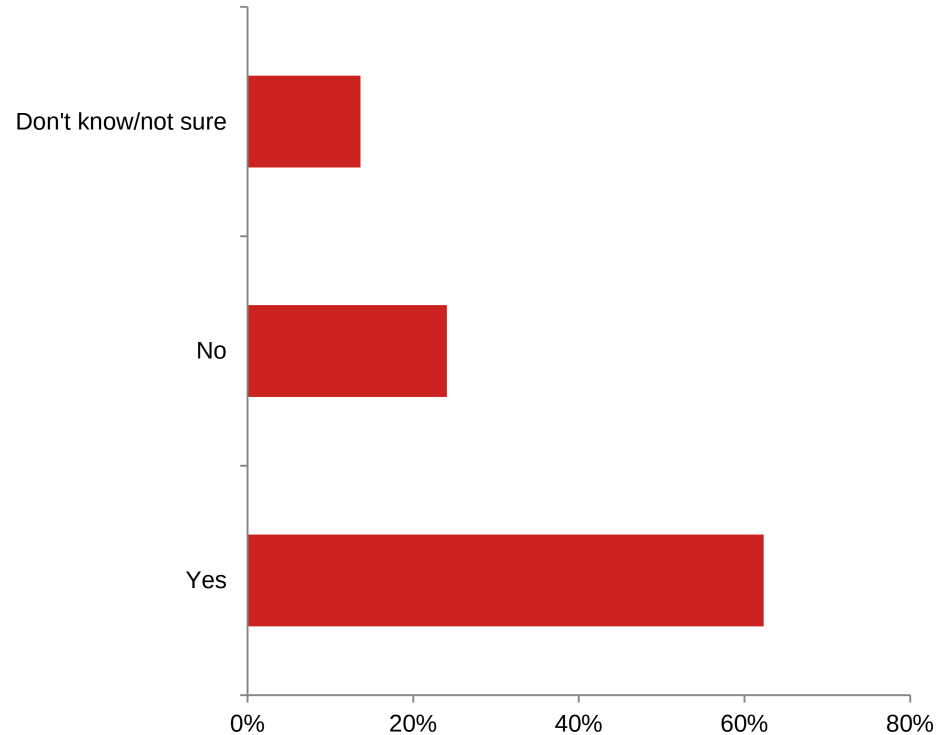
Survey Participants

Which of the following best describes your role?



Changes in the Fed's inflation framework?

Do you expect a change to the Fed's inflation framework after policymakers complete their review of monetary policy strategies and communication policies?

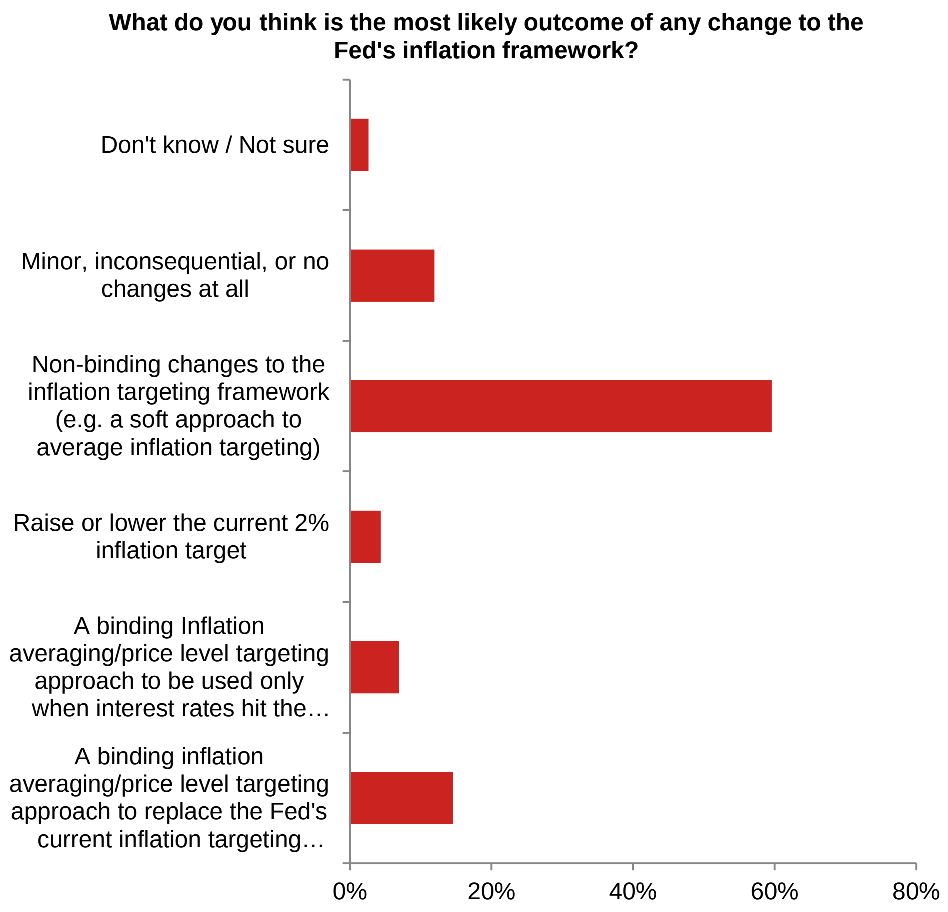


Note: Thanks to Ellen Zentner and Robert Rosener of Morgan Stanley for providing the results for their survey of investors.
Source: Morgan Stanley Research – US Economics: Prospects for a New Inflation Framework, 24 April 2019

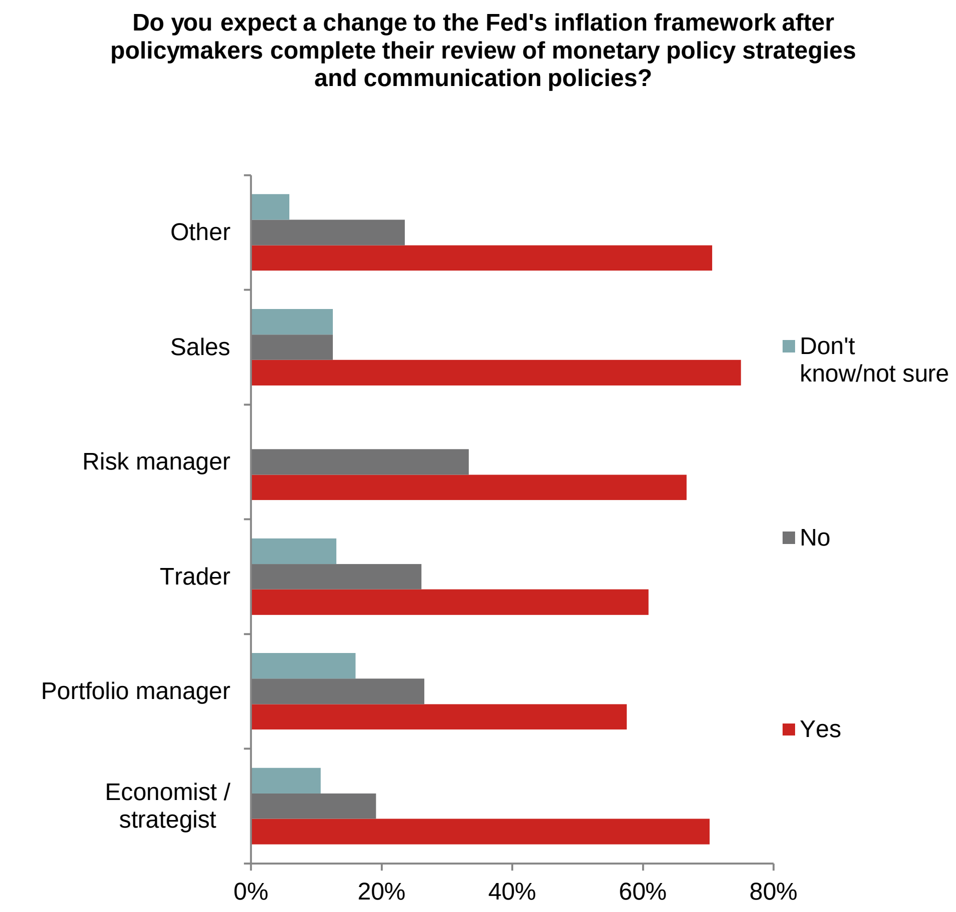
What sort of change do investors expect?

- **Most investors expect modest changes to the Fed's inflation targeting framework**
- **Economists and strategists have higher expectations for change than portfolio mangers**

What sort of changes in the Fed's inflation framework?



Differences across respondents



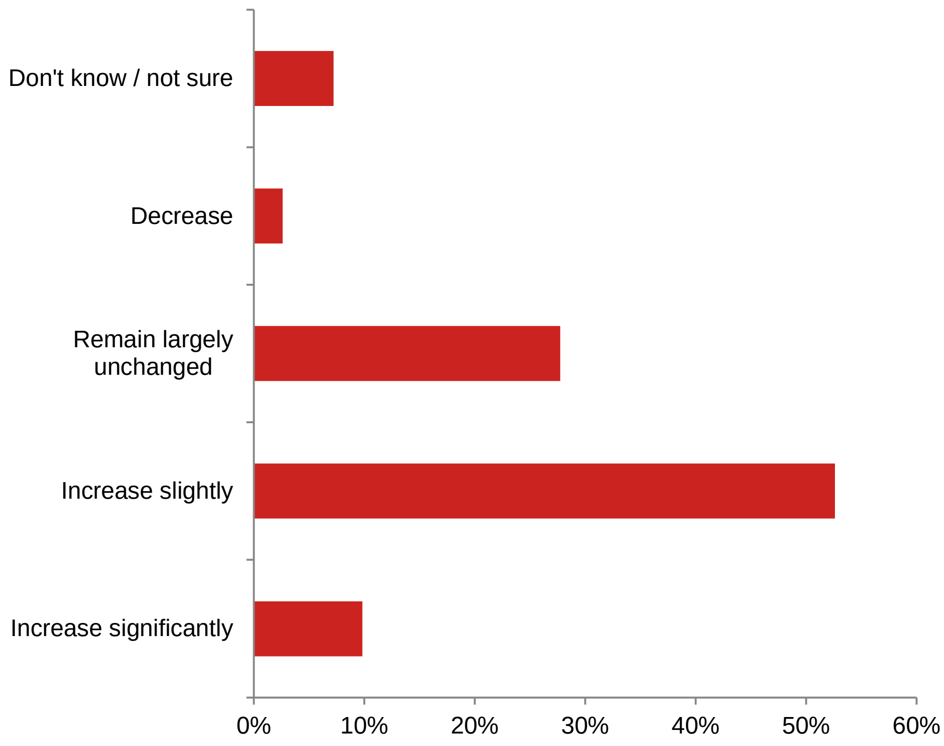
Note: Thanks to Ellen Zentner and Robert Rosener of Morgan Stanley for providing the results for their survey of investors.
Source: Morgan Stanley Research – US Economics: Prospects for a New Inflation Framework, 24 April 2019

Investors' perceptions of the impact of potential changes to the Fed's inflation targeting strategy

- **Investors expect inflation targeting to have a small impact on inflation compensation**
- **But investors also think that a shift to inflation targeting will mean more accommodative policy**

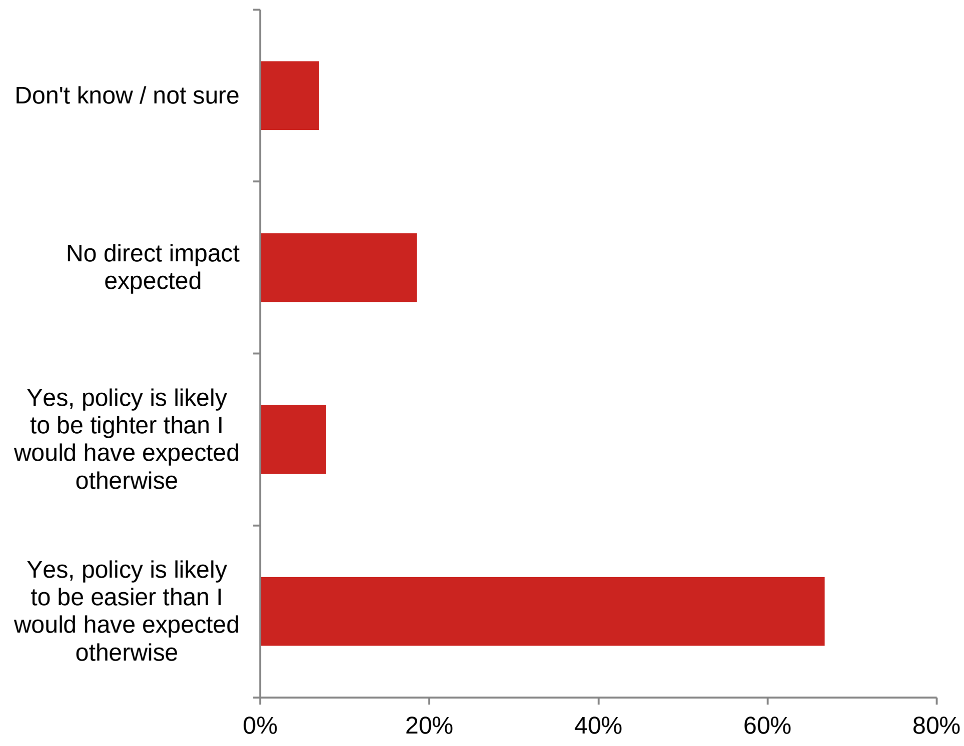
Expected impact on inflation compensation

If the Fed replaces its current inflation targeting approach with a binding commitment to average 2% inflation, would you expect market inflation compensation to:



Expected impact on monetary policy

If the Fed replaces its current inflation targeting approach with a binding commitment to average 2% inflation, would that impact your outlook for monetary policy, all else equal?



Note: Thanks to Ellen Zentner and Robert Rosener of Morgan Stanley for providing the results for their survey of investors.
Source: Morgan Stanley Research – US Economics: Prospects for a New Inflation Framework, 24 April 2019

Personal impressions

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- Market participants seem pretty skeptical about the Fed's ability to affect inflation directly through expectations.
  - The unexpectedly low "cost" of the Volcker disinflation is a positive example
  - But the negative cases seem more relevant
    - The slow disinflation of the 1980-90s
    - Limited impact of the formal adoption of the 2% target in 2012
    - Kuroda's (and Draghi's) struggles
- Most financial market participants (that I speak with) believe that the potential benefits of more complex strategies such as price level targeting, contingent price level targeting, and nominal income targeting, are not large relative to alternatives – i.e., an enhanced version of the Fed's current "symmetric inflation targeting" – and these more complex strategies pose communication challenges.
  - Some investors see advantages in stabilizing the price level.
    - Note that enhanced "symmetric inflation targeting" already goes some way in this direction.
    - The key is to make clear that "symmetric" applies to outcomes

Source: Federal Reserve, Nomura Economics

Other Issues

The other part of the mandate

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"In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate."

FOMC, "Statement on Longer-Run Goals and Monetary Policy Strategy"

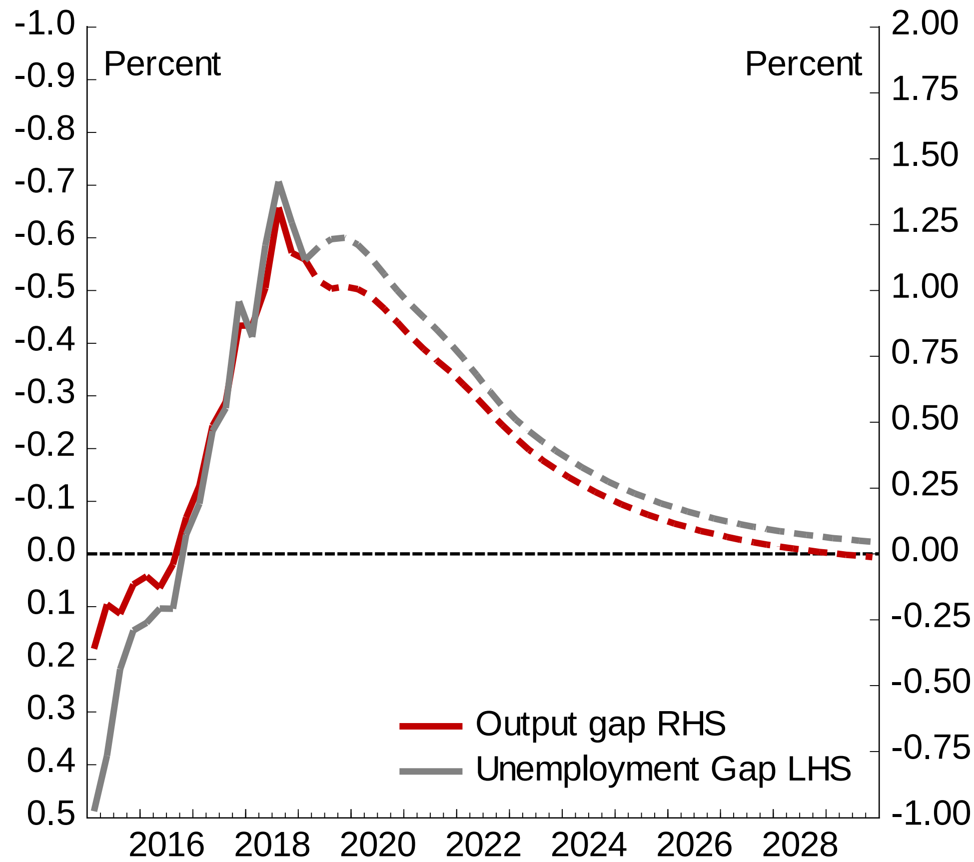
- ***Is this a good description of what the FOMC is doing with respect to the employment side of the mandate?***

Source: Federal Reserve, Nomura Economics

Output and unemployment gaps

- By conventional measures the economy is operating beyond full employment
- Conventional policy rules imply that the Fed should be raising interest rates
- Few expect the FOMC to do that
- The common assumption seems to be that the Fed's policy preferences with respect to employment are ***not*** symmetric
- Realigning the Fed's rhetoric on the employment mandate could affect market expectations in upside scenarios

Output an unemployment gaps from SEP-consistent baseline



Source: Federal Reserve, FRB/US baseline, Mar-2019and Nomura Economics.

What policy rules imply right now

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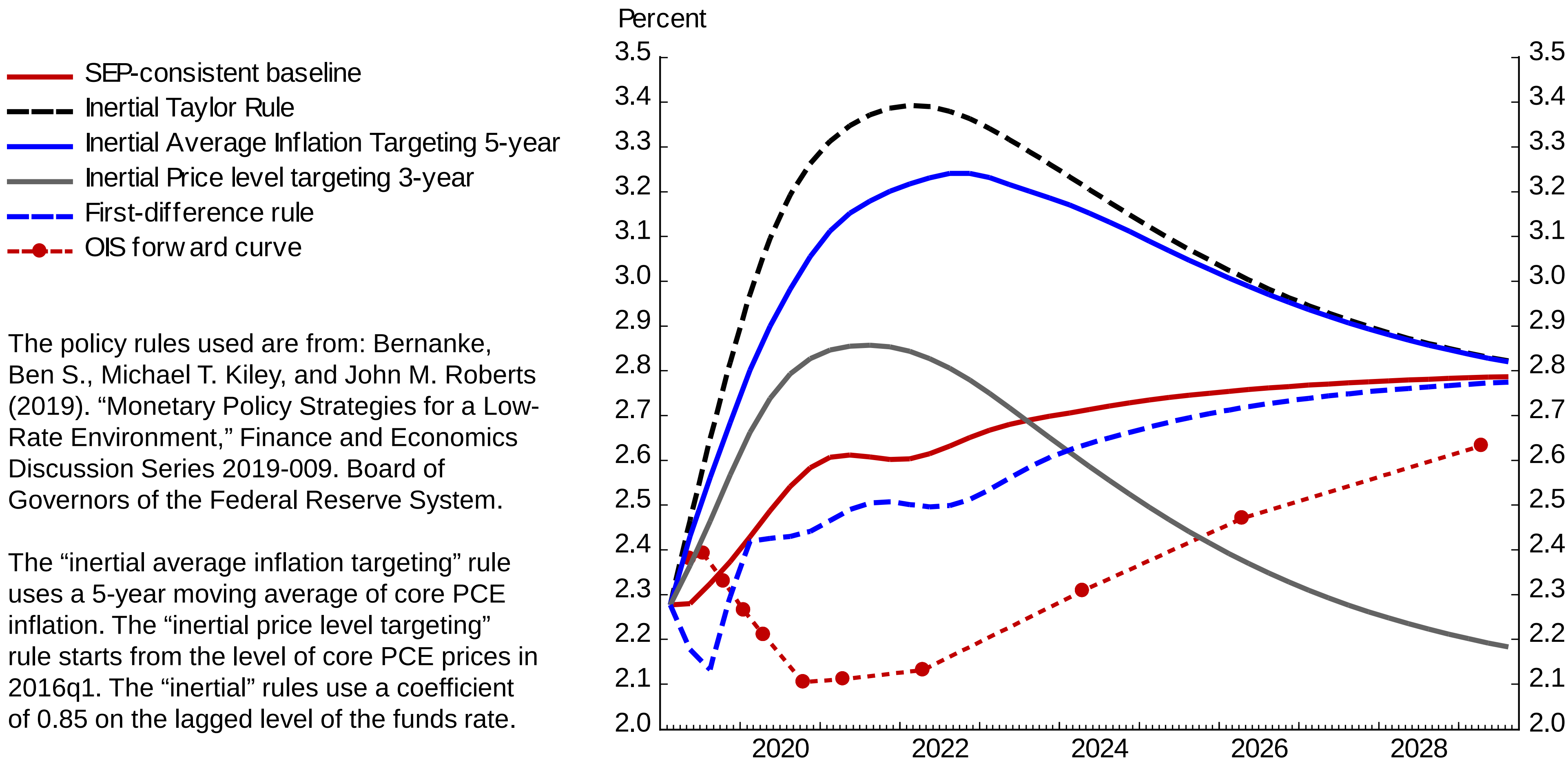
Path for the Fed funds rate under alternative policy rules, SEP-consistent baseline, and



The policy rules used are from: Bernanke, Ben S., Michael T. Kiley, and John M. Roberts (2019). “Monetary Policy Strategies for a Low-Rate Environment,” Finance and Economics Discussion Series 2019-009. Board of Governors of the Federal Reserve System.

The “inertial average inflation targeting” rule uses a 5-year moving average of core PCE inflation. The “inertial price level targeting” rule starts from the level of core PCE prices in 2016q1. The “inertial” rules use a coefficient of 0.85 on the lagged level of the funds rate.

Source: Federal Reserve, Nomura Global Economics

Asymmetric policy preferences

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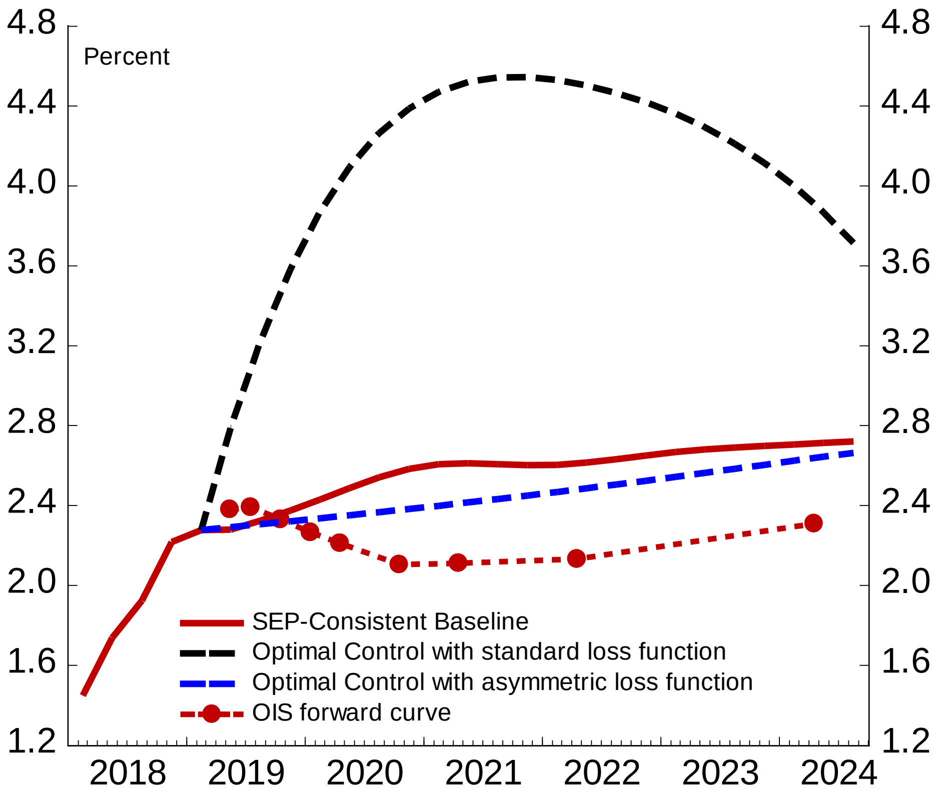
- **Few are expecting the FOMC to raise interest rates in order to raise unemployment**
- **Promoting higher employment may offset the deflationary bias of low neutral rates**

Funds rate path under optimal control with alternative loss functions



Note: Simulations of the FRB/US model under optimal control. The baseline is the SEP-consistent FFRB/US baseline for Mar-2019. Simulations begin in 2019q2. The "asymmetric" loss function is puts no weight on the unemployment gap when it is negative, otherwise it is a standard quadratic loss function.
Source: Federal Reserve and Nomura Economics.

Outcomes under "optimal discretionary" monetary policy

	Expected value:	
	Inflation	Output Gap
High Neutral Rate		
Loss function:		
Asymmetric	2.94	0.25
Inflation only	2	0
Symmetric	2	0
Low Neutral Rate		
Loss function:		
Inflation only	1.54	−0.15
Symmetric	1.71	−0.29
Asymmetric	2.04	0.22

Source: Gust, C., López-Salido, D. and Meyer, S., 2017. "Asymmetric monetary policy and the effective lower bound." *Research in Economics*, 71(3), pp.441-451. Gust et al use a standard New Keynesian model to study optimal discretionary policy under different assumptions of about policy makers' preferences. "Symmetric" refers to standard quadratic loss function. The "asymmetric" loss function is puts no weight on the output gap when it is positive, otherwise it is a standard quadratic loss function.

Balance Sheet Issues

- Under the FOMC's new balance sheet policy it has two choice variables that it did not have before:
  - The size of the "buffer," i.e., the overall size of assets and reserves
  - The composition of their assets
- The FOMC seems to be acting like these are "technical" matters that are unrelated to monetary policy.
- On the other hand, the FOMC seems to be counting on asset purchases to be impactful when rates are at the lower bound.
  - If asset purchases are effective when short-term rates are at the lower bound then the Fed's decisions on the size of the "buffer" and the composition of its assets should matter now.
  - It would be helpful for the FOMC to provide more guidance on how its decisions on the balance sheet are related to its overall objectives for monetary policy.

Source: Federal Reserve, Nomura Economics

Appendix A-1

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