INFLATION EXPECTATIONS – A POLICY TOOL?

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WHY INFLATION EXPECTATIONS?

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Mario Draghi (2015): "*When inflation expectations go up with zero nominal rates, real rates go down. When real rates go down, investments and the economic activity improves. That's the reasoning [of QE].*"

STANDARD MECHANISMS

- *Households consume more*: when inflation expectations rise and nominal interest rates are unchanged (ZLB), real interest rates are lower, so households should save less and spend more.

- *Firms invest more and hire more workers*: when inflation expectations rise and nominal interest rates are unchanged (ZLB), real interest rates are lower so user cost of capital and labor are lower, inducing firms to raise their capital and employment.

- *Firms raise their prices*: with sticky prices, inflation lowers firms' relative price over time, so expectation of higher inflation induces them to raise prices more than they would otherwise.

- *Workers raise their wage demands*: with sticky wages, inflation lowers the real wage over time, so expectations of higher inflation induce workers to raise wage demands, which should raise prices further.

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- What are the challenges in using inflation expectations as a policy tool?
  - Measurement of inflation expectations (especially firms)
  - Breaking through the veil of inattention

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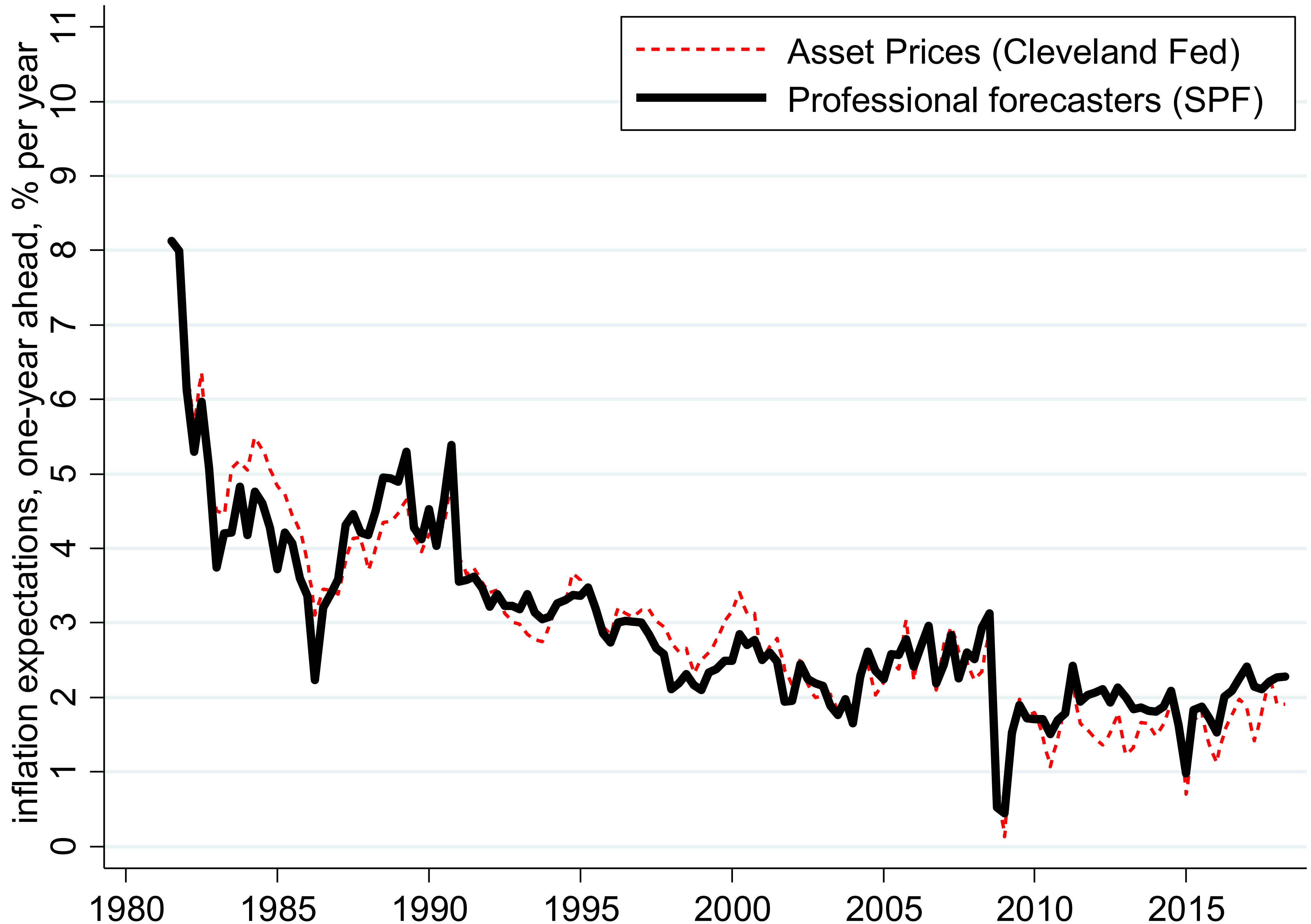

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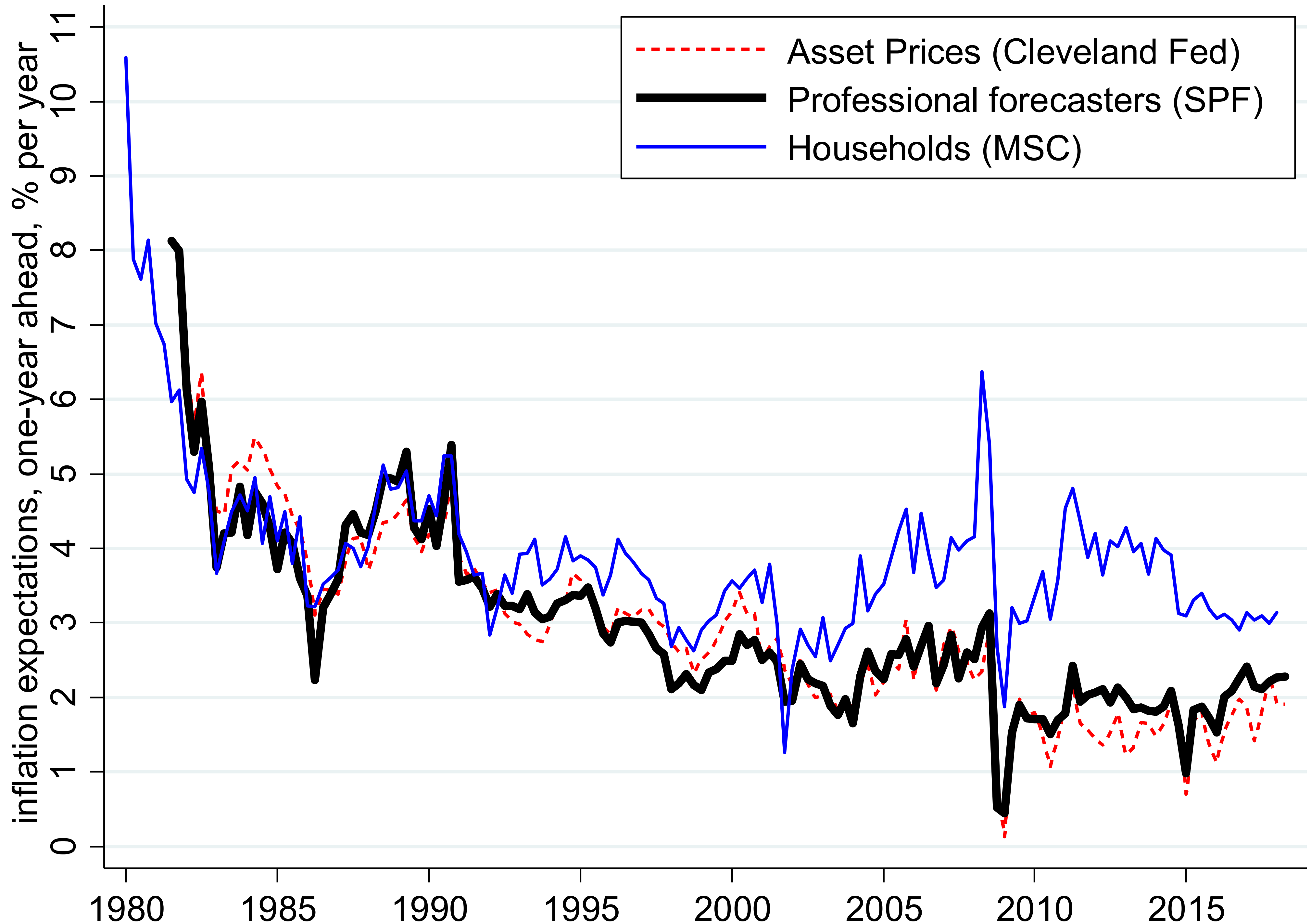

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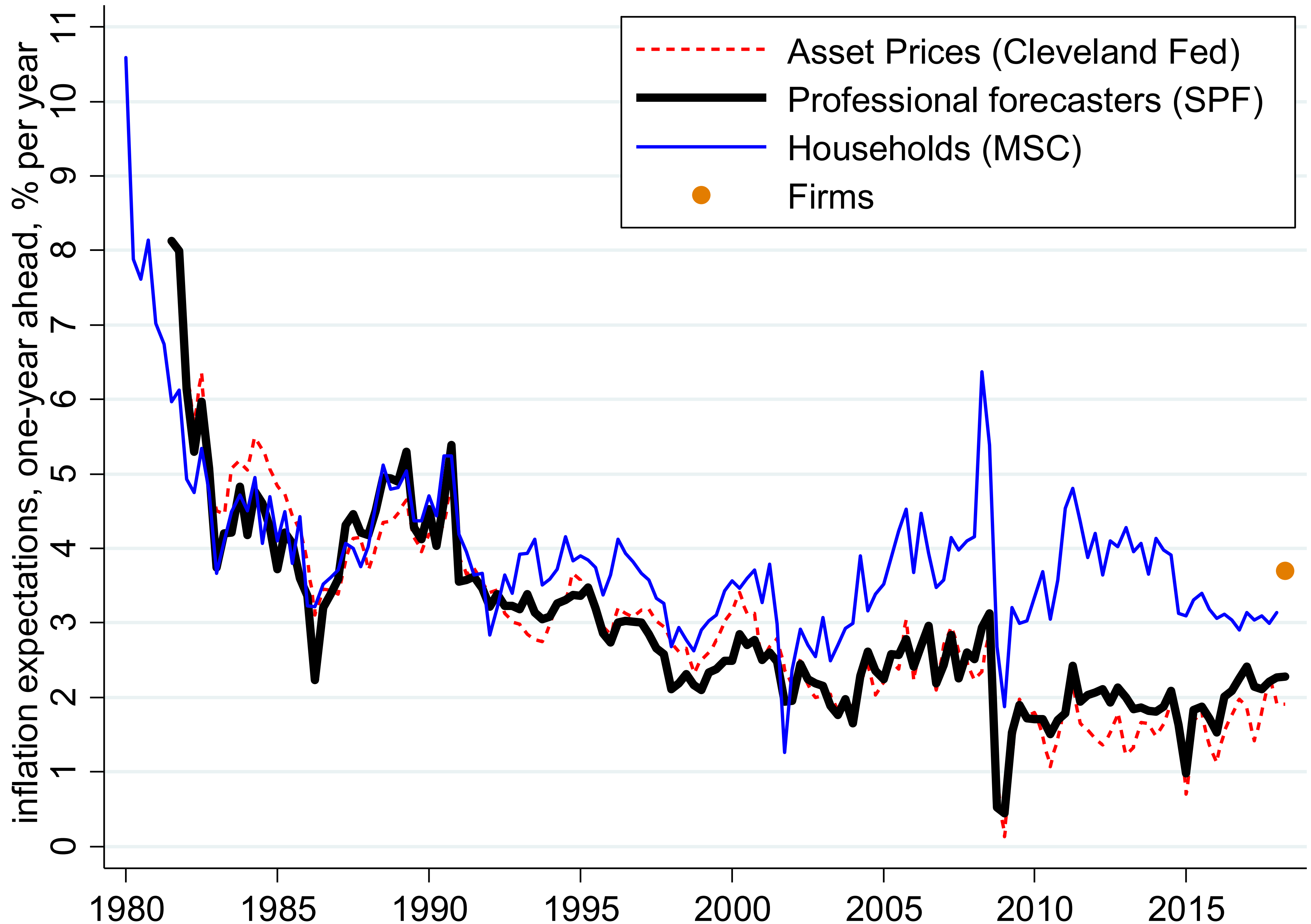

Expectations are not interchangeable across agents

WHAT FORCES INFLUENCE INFLATION EXPECTATIONS?

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Predictors of inflation expectations in low inflation economies.

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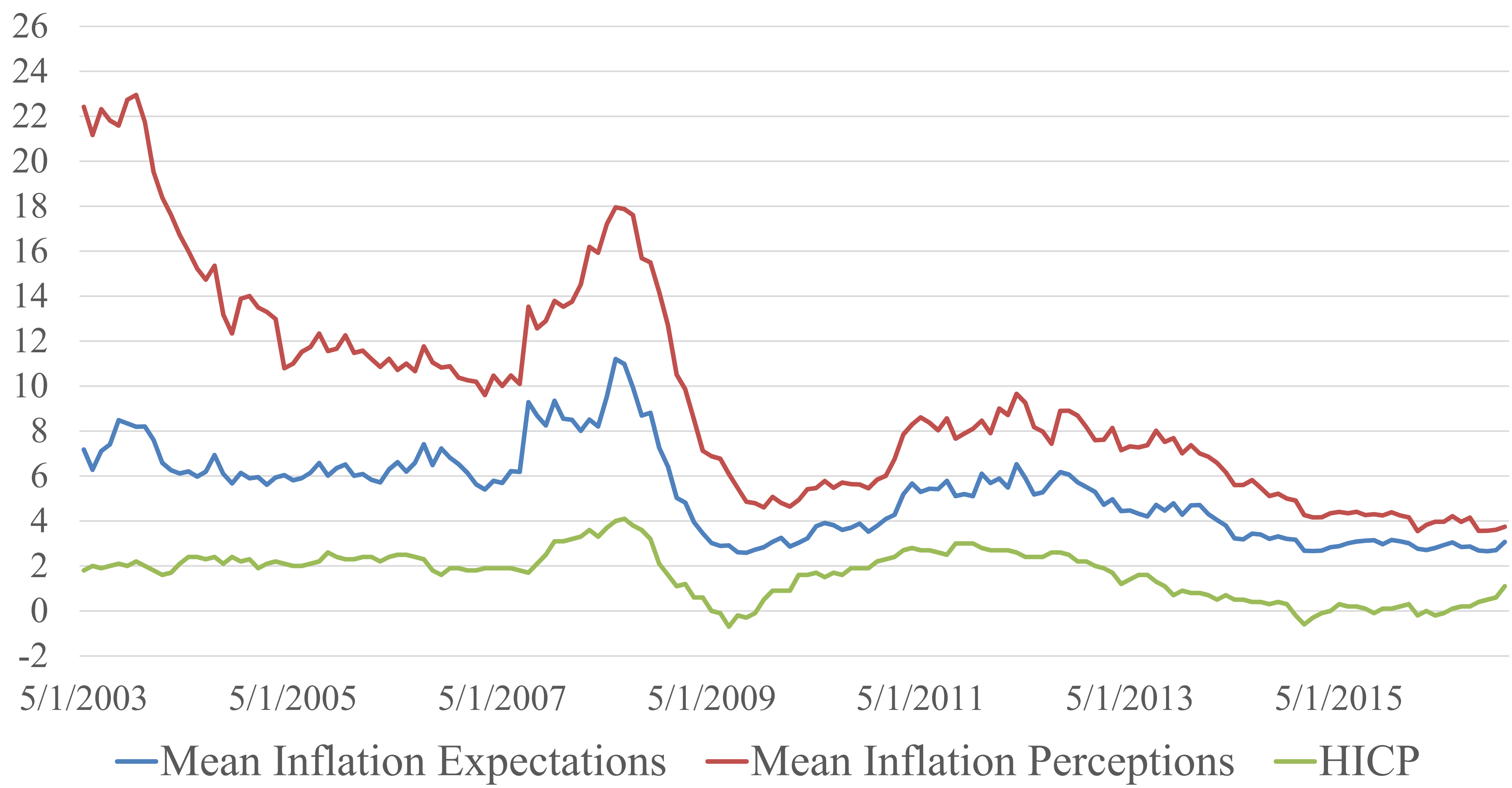

Source: European Commission data.

WHAT FORCES INFLUENCE INFLATION EXPECTATIONS?

Predictors of inflation expectations in low inflation economies.

- Perceptions of recent inflation (strong)
- Shopping: (strong)
  - Particularly important in the determination of perceived inflation are recent price changes of a few easily observed goods/services, e.g. gasoline or exchange rate.

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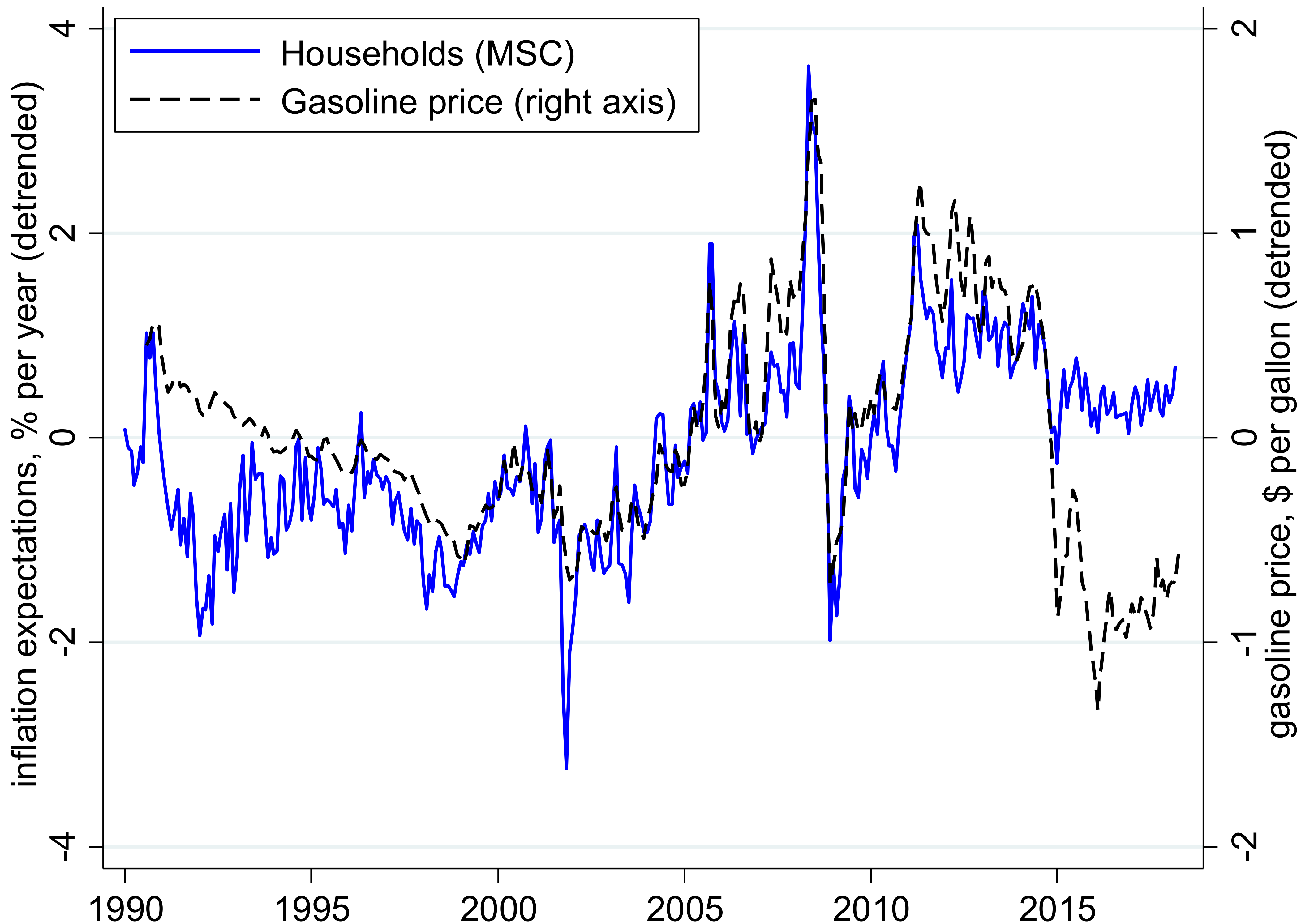

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- Perceptions of recent inflation (strong)
- Shopping (strong)
- Media: (intermediate)
  - Managers in New Zealand report that their primary sources of information about inflation are their own experience with prices and news reports about inflation.
  - News reports focus primarily on negative reports about inflation.
  - Managers are more likely to seek out more information when they hear negative news reports about inflation than positive reports.
  - Exposure to news reports leads consumers to revise their expectations, but not necessarily (or even generally) closer to professional forecasters.

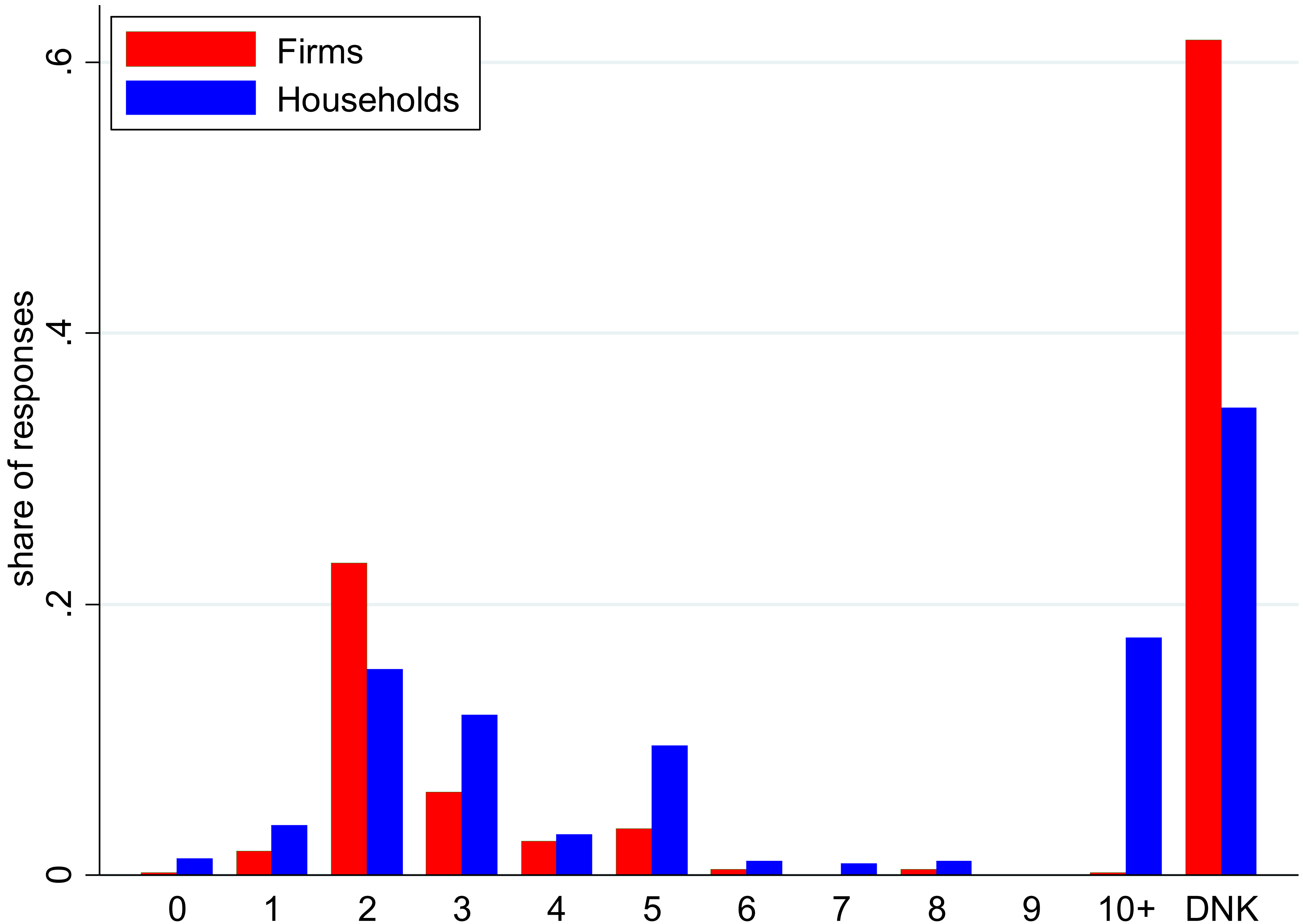
What forces influence inflation expectations?

Predictors of inflation expectations in low inflation economies.

- Perceptions of recent inflation (strong)
- Shopping (strong)
- Media (intermediate)
- Policy (weak)
  - A very high fraction of households and firms in the U.S., New Zealand, and Euro-Zone cannot identify the inflation target of their respective central banks.

WHAT FORCES INFLUENCE INFLATION EXPECTATIONS?

Responses to question about Fed's inflation target



DK: "Don't Know"

Source: Coibion, Gorodnichenko, Kumar and Piedmonte (2018)

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- Perceptions of recent inflation (strong)
- Shopping (strong)
- Media (intermediate)
- Policy (weak)
- Incentives (strong)
  - Managers in New Zealand are more attentive to inflation when:
    - their firms face more competition
    - they expect to change their price soon
    - their profit function is steeper (making information more valuable)

What forces influence inflation expectations?

Predictors of inflation expectations in low inflation economies.

Predictors of inflation expectations in *higher-inflation* economies:

- While households and managers in low-inflation economies are largely uninformed about recent inflation, those in higher-inflation economies seem to be much better informed about recent inflation:
  - Households in U.S. vs households in Argentina
  - Managers in U.S. and New Zealand vs managers in Iran, Ukraine, and Uruguay (Frache and Lluberas 2018)

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- It also seems to be the case that managers in higher-inflation economies are much better informed about monetary policy objectives and actions than those in low-inflation economies.

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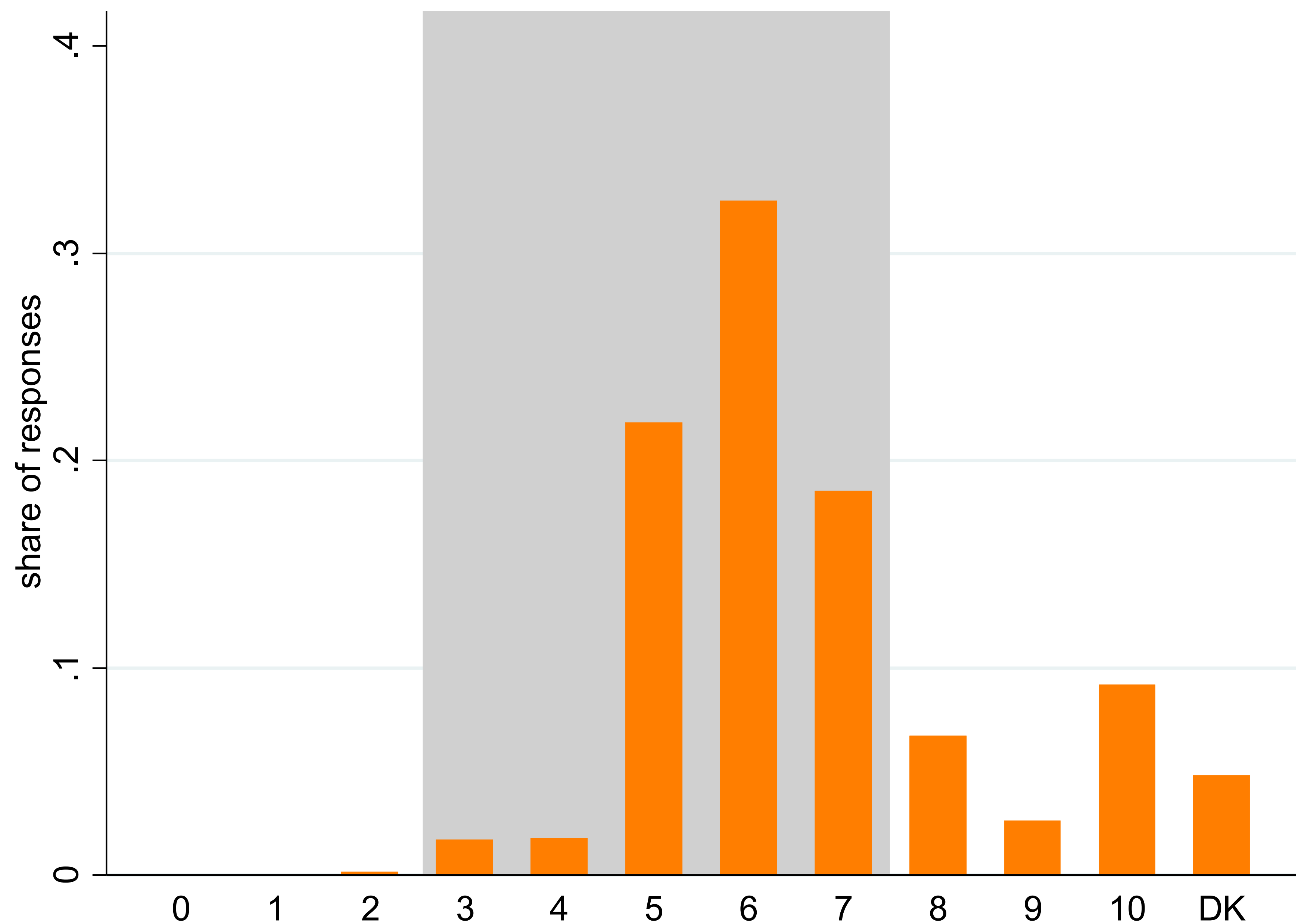
Responses to question about Central Bank of Uruguay's inflation target



In a 2018 survey of Urugayan managers, almost 80% picked answers in the target range.

Source: Coibion, Frache, Gorodnichenko, and Lluberas (2018)

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Implication for policymakers: An extended period of successful inflation stabilization alters the incentives of economic agents, making it optimal for them to become less informed about inflation in general and monetary policy in particular.

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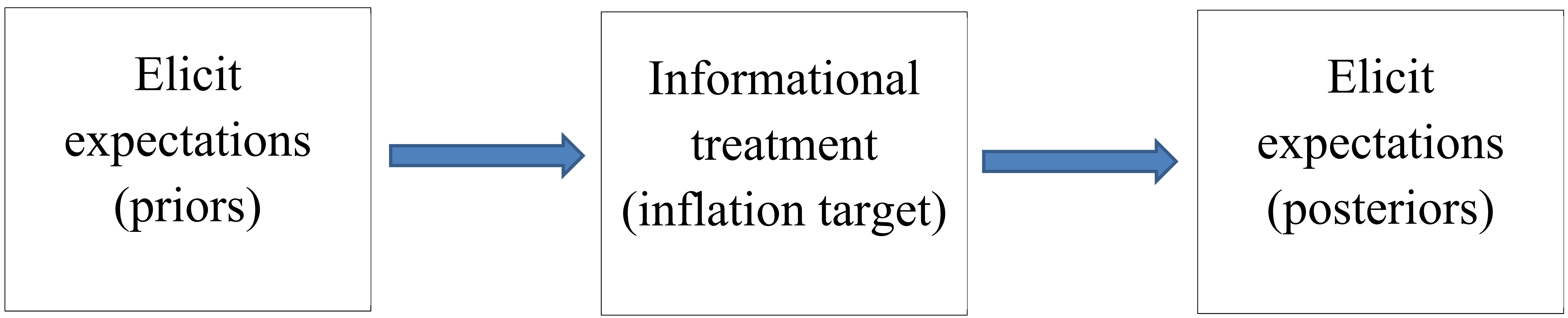

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Example with U.S. Households: Coibion, Gorodnichenko and Weber (2018)

	Dependent variable: Revision of one-year-ahead inflation forecasts of U.S. consumers
Treatment groups (coefficients are relative to the control group)	
Past inflation	-1.954***
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- **Summary**:
  - Households and firms in low-inflation economies are ill-informed about inflation and monetary policy.
  - Providing them with information about inflation or monetary policy has large effects on their expectations.
  - Does a change in expectations affect their decisions?

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Elicit expectations (priors) and plans → Informational treatment (inflation target) → Elicit expectations (posteriors) → Measure outcomes (relative to plans)

HOW DO CONSUMERS/FIRMS ACT ON EXPECTATIONS?

- Consumers: higher expected inflation → higher consumer spending
  - Evidence of causal relation remains limited but an active area of research.

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  - France (1992-2016):
    - higher prices, employment, hours and investment
  - Uruguay:
    - Ongoing!
- Conclusions: Changes in inflation expectations affect economic decisions but exact mechanisms remain unclear.

CHALLENGES IN USING INFLATION EXPECTATIONS AS A POLICY TOOL?

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  - Questions about firm-specific outcomes rather than aggregate outcomes
    - Example: Business Inflation Expectations (BIE; FRB Atlanta)

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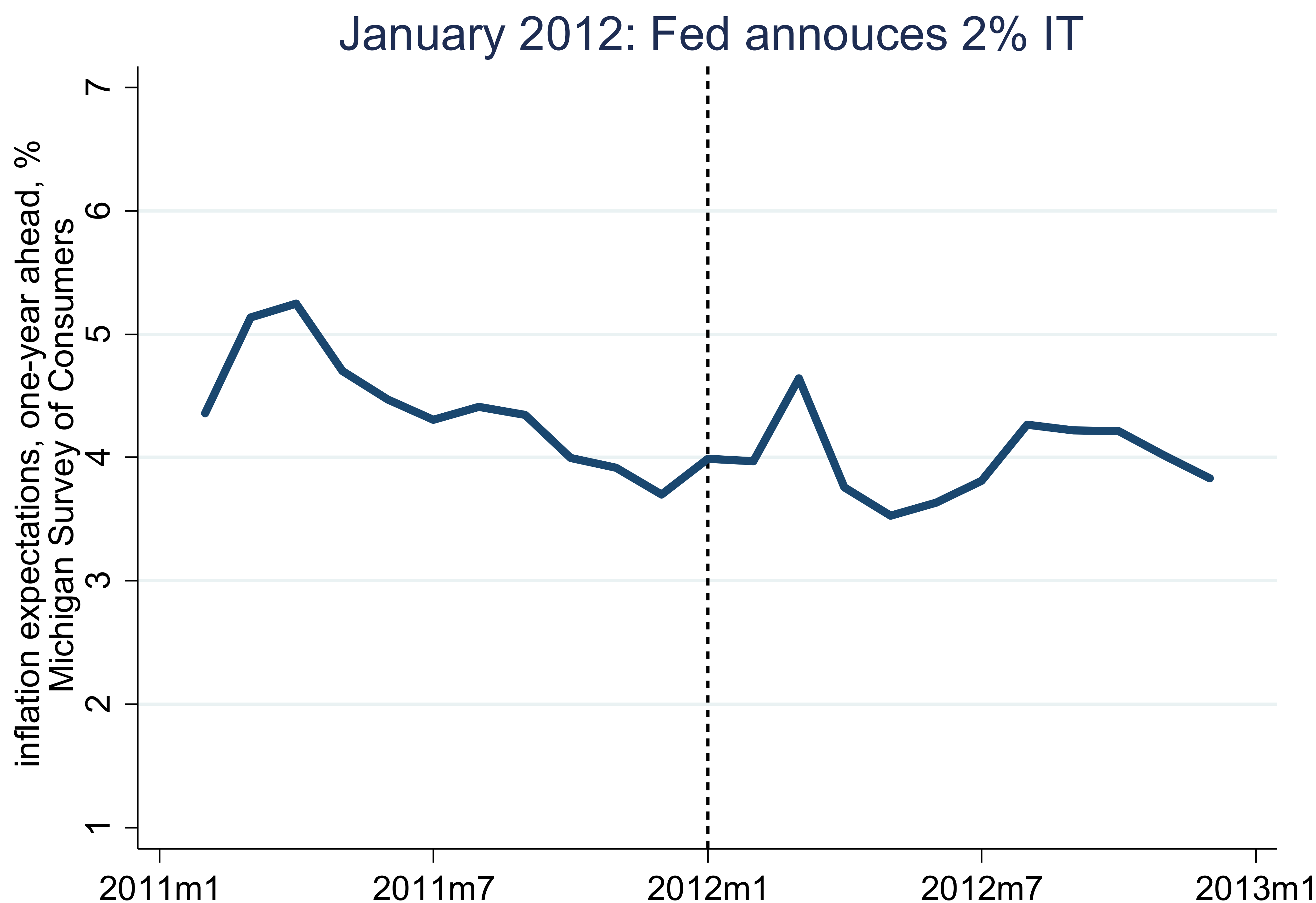
- Surveys of firms’ inflation expectations are expensive but they are most useful!
- Best surveys: Ukraine (1,000 firms per quarter) and Uruguay (300 firms per quarter)

Challenges in using inflation expectations as a policy tool?

- Measurement of inflation expectations (especially firms)
- Breaking through the veil of inattention:
  - Firms and households don't seem to respond to monetary policy announcements in the U.S. and Euro-Zone.
  - We need new communications strategies to reach these audiences.

BREAKING THROUGH THE VEIL OF INATTENTION



The announcement of a 2% inflation target by the Federal Reserve had no discernible impact on U.S. household expectations of inflation.

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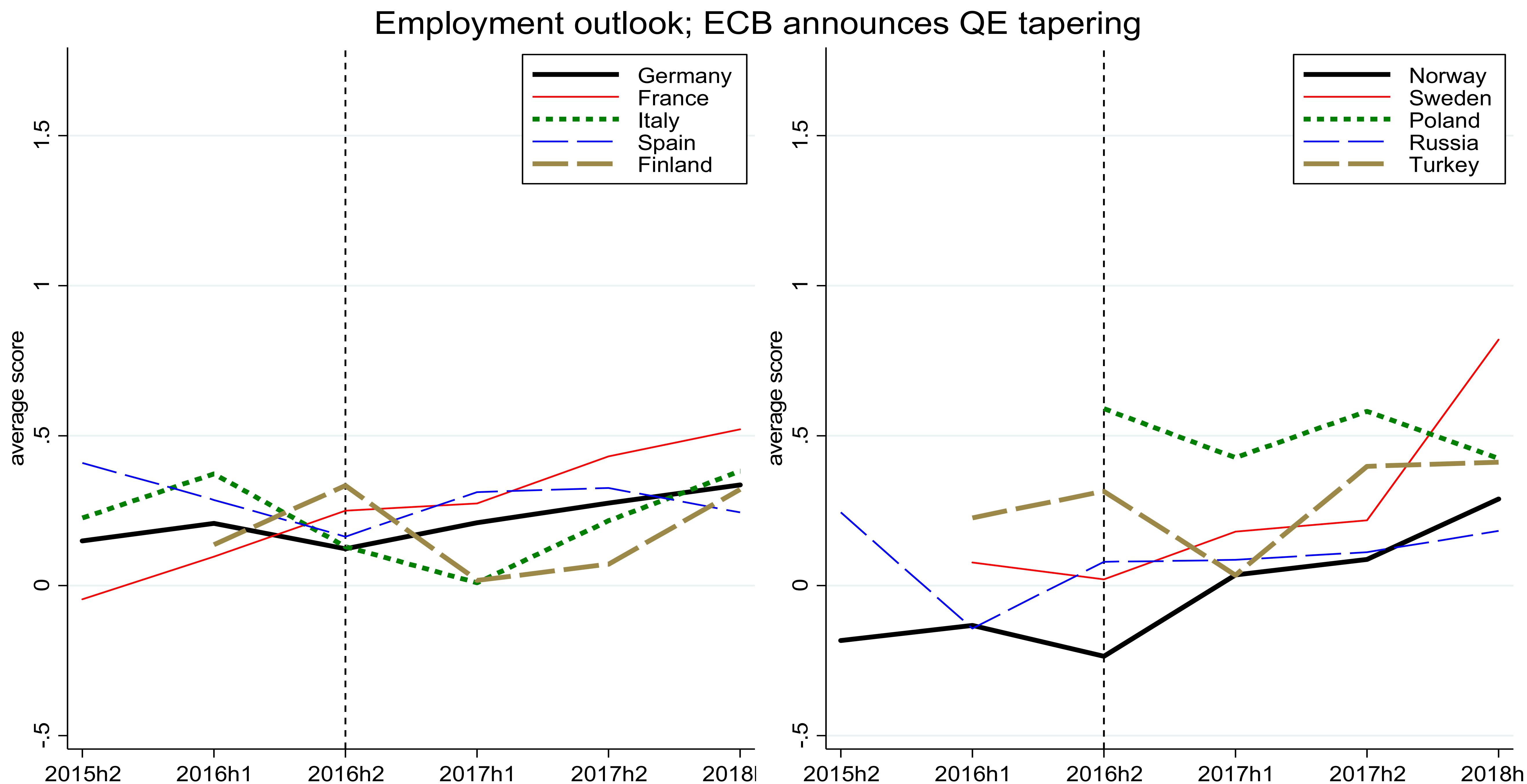

Source: Deloitte Survey of Chief Financial Officers

The announcement of tapering QE by the ECB had no discernible impact on Euro area firms' employment outlooks relative to non-Euro area firms.

BREAKING THROUGH THE VEIL OF INATTENTION

- Communication *can* work
  - Public campaigns for other policies (healthcare, fiscal) work
  - Information treatment moves expectations

BREAKING THROUGH THE VEIL OF INATTENTION

- Communication *can* work
- Simple messages work better
  - simple messages/facts are as effective as complex policy statements

Dep. var.: Revision of one-year-ahead inflation forecasts of U.S. consumers	
Treatment groups (coefficients are relative to control)	
FOMC inflation forecast	-2.004***
	(0.384)
FOMC statement	-2.272***
	(0.335)

Source: Coibion, Gorodnichenko and Weber (2018)

BREAKING THROUGH THE VEIL OF INATTENTION

- Communication *can* work
- Simple messages are better
- Repeat the message
  - One-time announcements do not have long-lasting effects on expectations of firms and households (information "depreciates" within months)
  - Need information campaigns to have persistent effects on expectations.

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    - But one can have different messages for “North” to slow down and for “South” to accelerate.

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- Take the message directly to the target audience
  - Conventional media may be not good enough → Advertising, social media
  - Potentially differentiate messages across audiences
- Target the message to the scenario
  - For example, if inflation is too low, emphasize the inflation target (rather than actual inflation) to raise inflation expectations

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  - Move consumption/employment/investment
  - Directly influence prices
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- Inflation expectations as a policy tool: large potential!
  - Move consumption/employment/investment
  - Directly influence prices
  - Target specific areas, industries, or types of consumers
- Are we ready to use it? Not yet…
  - More research to study how inflation expectations translate into actions
  - More high-quality surveys of firms' inflation expectations
  - New communication strategies to reach consumers and firms