# Enhancing central bank communications using simple and relatable information

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BANK OF ENGLAND

# Sharp rise in external bank communication

External communication is key to monetary policy and has increased rapidly over the last decades.

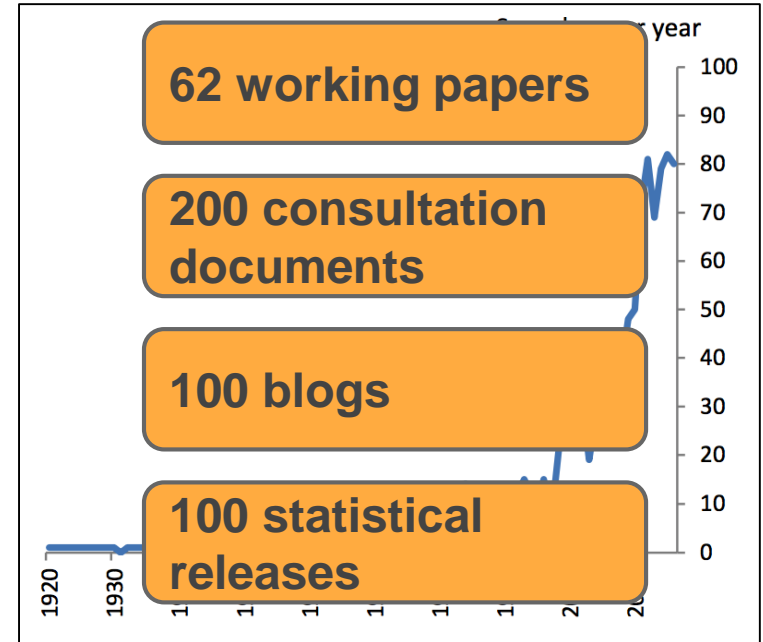**Mention of central banks in The Financial Times:**

BANK OF ENGLAND

UNITED STATES · FEDERAL RESERVE SYSTEM

**1960:** 4,000
**2010:** 10,000

**1960:** 2,100
**2010:** 8,600



Speeches per year

62 working papers

200 consultation documents

100 blogs

100 statistical releases

# Effective central bank communication

- Communication can affect movements in financial markets (Gürkaynak et al., 2005; Nakamura & Steinsson, 2018)
- Towards the general public, it increases operational transparency (Haldane, 2017) and can anchor expectations (Armantier et al., 2016; Hubert & Labondance, 2017).
- Central banks face a 'twin deficit' of understanding and trust with the general public (Haldane, 2018).
- Open question how good central bank communication is, particularly to the general public.

Source: Gürkaynak, R., Sack, B., Swanson, E. 2005. Do actions speak louder than words? The response of asset prices to monetary policy actions and statements. International Journal of Central Banks 1(1), 55-93; Nakamura, E., & Steinsson, J. (2018). High-frequency identification of monetary non-neutrality: the information effect. The Quarterly Journal of Economics, 133(3), 1283-1330; Haldane, A. G. (2017). A little more conversation, a little less action. *Bank of England-Speech*; Armantier, O., Nelson, S., Topa, G., Van der Klaauw, W., & Zafar, B. (2016). The price is right: Updating inflation expectations in a randomized price information experiment. *Review of Economics and Statistics*, *98*(3), 503-523; Hubert, P., & Fabien, L. (2017). Central bank sentiment and policy expectations.Haldane, A., & McMahon, M. (2018). Central bank communications and the general public. In *AEA Papers and Proceedings* (Vol. 108, pp. 578-83).

# Bank communication to the general public

Federal Reserve Monetary Policy press release (September 2018)

Bank of England's fan charts to communicate uncertainty (August 2017)
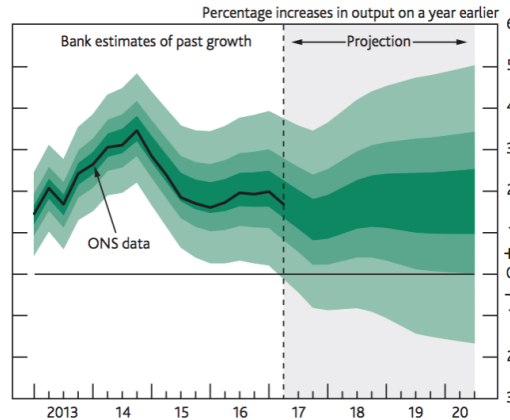
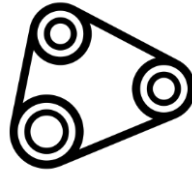Reserve Bank of New Zealand cartoons (May 2018)

# Research objectives

## How can central bankers improve their communication with the general public?

Evaluate **existing Inflation Report summaries** on comprehension and trust

**Isolate causal effects** of visual elements, length and readability

Evaluate a new intervention that makes the content more **relatable**
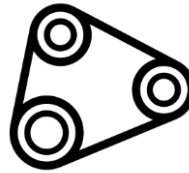
# Key findings

## Existing materials

Bank of England's **Visual Summary outperforms** standard Monetary Policy Summary on comprehension (+25%), but no difference on trust.

## Driving factors

The boost in comprehension is driven by the material's **reading grade**, rather than visuals or word count.
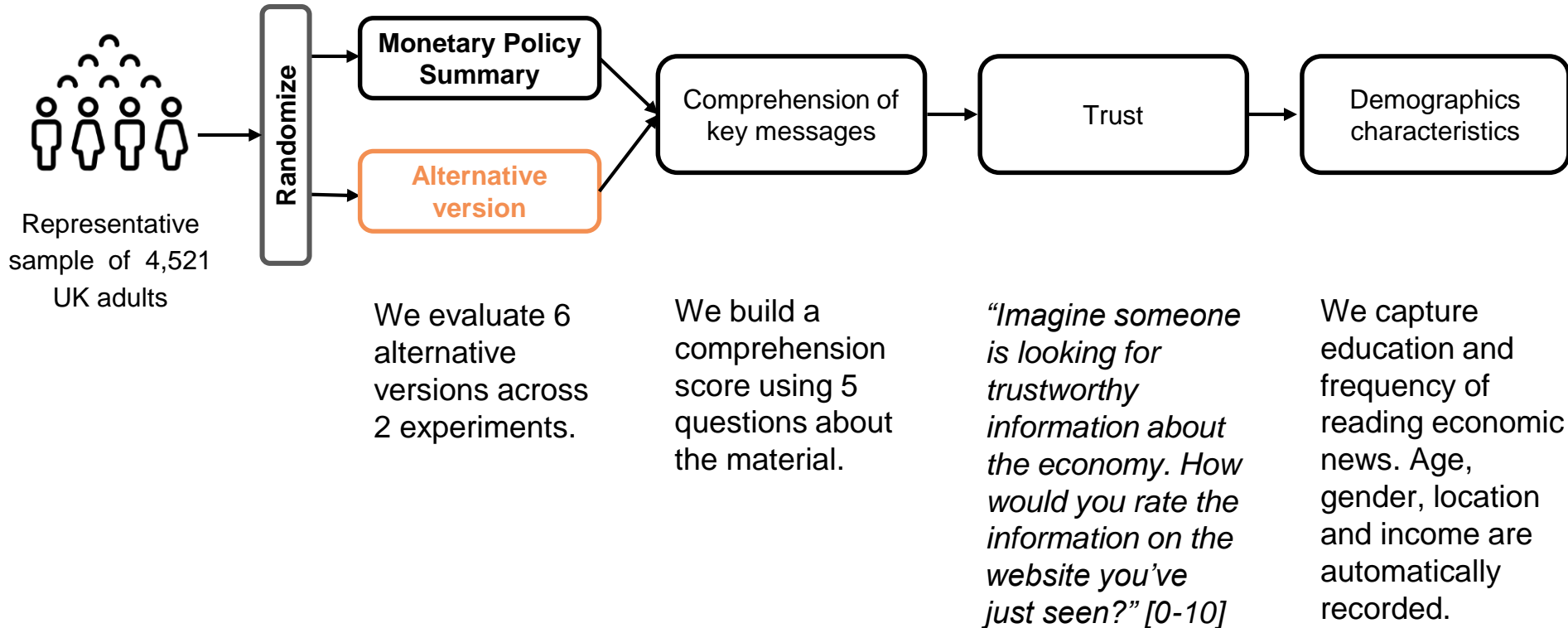
## Relatable content

Relating the content to people's daily lives **increases comprehension** (+19%) **as well as trust** (+6%).

# Experimental design

# Experimental design



Representative sample of 4,521 UK adults

**Randomize**

**Monetary Policy Summary**

**Alternative version**

Comprehension of key messages

Trust

Demographics characteristics

We evaluate 6 alternative versions across 2 experiments.

We build a comprehension score using 5 questions about the material.

*"Imagine someone is looking for trustworthy information about the economy. How would you rate the information on the website you've just seen?" [0-10]*

We capture education and frequency of reading economic news. Age, gender, location and income are automatically recorded.

PREDICTIV

# Comprehension questions

1.  In what way does the Bank of England support the economy?
    -   [Make sure that prices don't change; keep changes in prices to 2% per year; keep prices as low as possible; keep changes in prices to 0.5% per year]
2.  [Which] of these is true about prices at the moment?
    -   [Falling, rising faster than Bank's target; rising, but slower than Bank's target; no change]
3.  [What] has happened to the amount of people that are out of work recently?
    -   [Decreased; the same; increased]
4.  [What] is likely to happen to how much people can afford to buy this year?
    -   [Afford less as pay will rise more slowly than prices; Afford less as pay will fall and prices will rise; Afford more as pay will rise faster than prices; Afford more as pay will stay the same and prices will rise; no change]
5.  What is the Bank of England's current interest rate?
    -   [Numeric free text]

# Predictiv - online experiments for policy makers

## SAMPLE

- Access to a global panel including 200,000+ adults in the UK and 3,000,000+ in the US.

- Ability to target on niche characteristics.

## END-TO-END

- Predictiv offers test functionality, participant recruitment and data analysis.

- Variable incentives and bespoke builds possible.

## SCALING THROUGH TEMPLATES

- **Comprehension**: Understanding of key messages and ability to correctly apply it.

- **Choice simulations**: Simulates decision environments that people face in practice.

- **Diagnostics**: Institutional trust, beliefs, friction costs, etc.

- Keen to work with academics to build rigorous experiments that policy makers can use.

# Sample and recruitment

- Experiments run on the Predictiv platform.
- Total of 4,521 UK adults completed the experiment (roughly 500 per condition).
- Sample is representative of UK adult population based on observable characteristics (gender, income bracket, age bracket, location).
- Drop-out rate is roughly 15% (average for online experiments). No differential attrition across treatments. Sample is balanced on observables across conditions.

# Experiment 1: Evaluating existing materials

Monetary Policy Summary



Visual Summary

# Results: VS increases comprehension

| | Monetary Policy Summary (control) | Visual Summary |
|---|---|---|
| Comprehension score (0-5 scale) | 2.05 | |
| % understanding most/all (4-5 questions correct) | 12% | |
| % understanding little (0-1 questions correct) | 36% | |
| Trust (0-10 scale) | 6.05 | |

*Treatment effects estimated using OLS regression with demographic controls and robust standard errors. P-values were adjusted using Hochberg's method for multiple comparisons.*

# Experiment 1: Evaluating existing materials
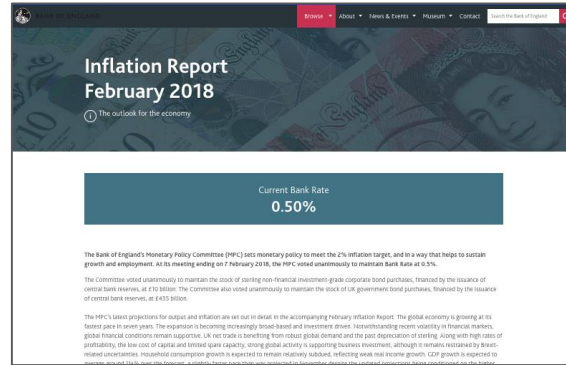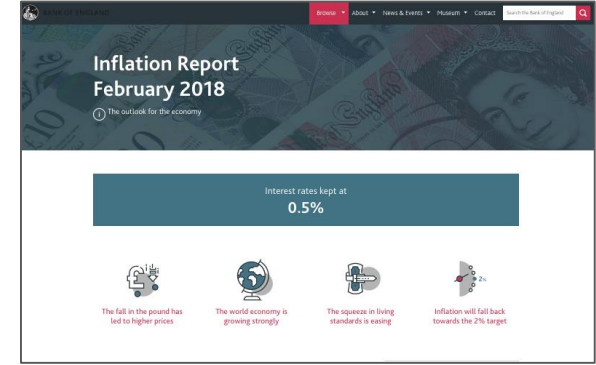
| | **Monetary Policy Summary** | **Visual Summary** |
|---|---|---|
| |  |  |
| **Word count** | 1069 | 879 |
| **Reading level (Flesch- Kincaid)** | 15.26 (university-level) | 7.34 (high school level) |
| **Visual elements** | No | Yes |

# Experiment 2: Identifying driving factors

|  | **Monetary Policy Summary (- visuals)** | **Monetary policy summary (+ visuals)** |
|---|---|---|
|  |  |  |
| **Word count** | 879 | 879 |
| **Reading level** | 15.26 (university-level) | 13.04 (university-level) |
| **Visual elements** | No | Yes |
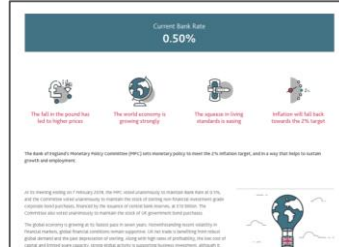
*No significant differences in reading grade between the MPS with and without visuals, as well as between the visual summary with and without visuals.*

# Results: driving factors
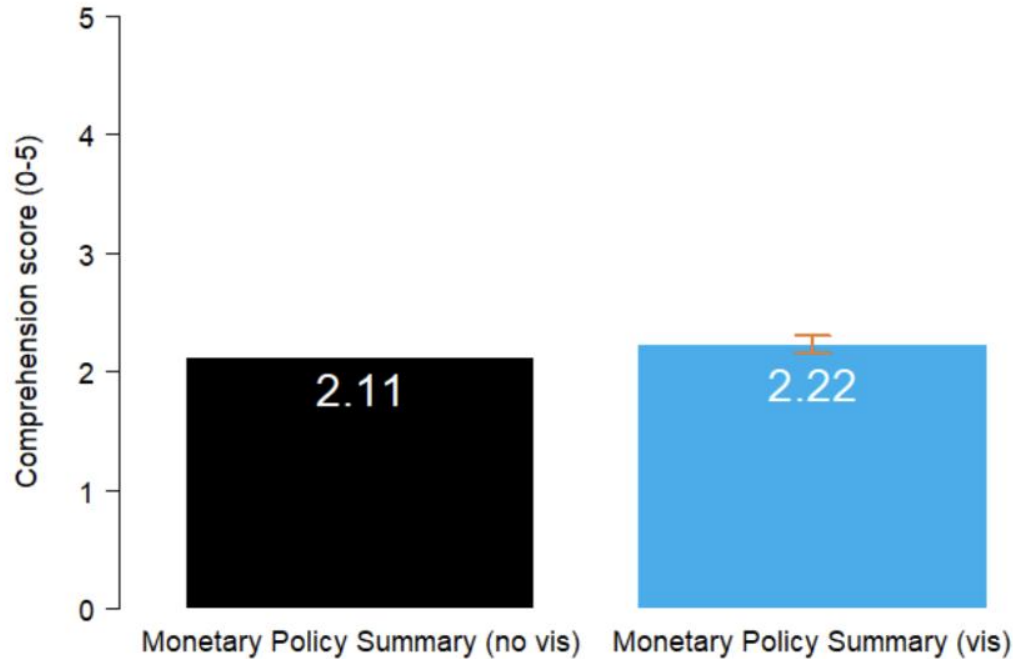


N=2,067
**p<0.01, *p<0.05, + p<0.1

# Results: driving factors

| | Monetary Policy Summary (no visuals) | Monetary Policy summary + visuals | Visual summary (no visuals) | Visual summary (+ visuals) |
|---|---|---|---|---|
| Comprehension score (0-5 scale) | 2.11 | 2.22 | 2.43 ** | 2.50 ** |
| % understanding most/all (4-5 questions correct) | 14% | 18% | 25% | 27% |
| % understanding little (0-1 questions correct) | 37% | 34% | 29% | 28% |
| Trust (0-10 scale) | 6.367 | 6.368 | 6.324 | 6.367 |

*Treatment effects estimated using OLS regression with demographic controls and robust standard errors. P-values were adjusted using Hochberg's method for multiple comparisons. + p<0.1; * p<0.05; ** p<0.01.*

# Making material relatable

- Increased use of first and second person pronouns and reducing third-person abstractions ('you' instead of 'consumer'; 'we' instead of 'Bank of England')
- More familiar, less technical terms ('prices' instead of 'inflation')
- Relatable examples (cost of groceries, impact on holiday costs)
- Personalization (interactive chart on regional unemployment).

CHART **Look at what unemployment is like in your area**

Select your region

London

A basket of goods and services that cost you **£100** this year…

2018 RECEIPT £100

2019 RECEIPT £102

…should cost you **£102** next year

4.3% United Kingdom

5.0% London

Source: ONS data

# Experiment 2: Making material relatable
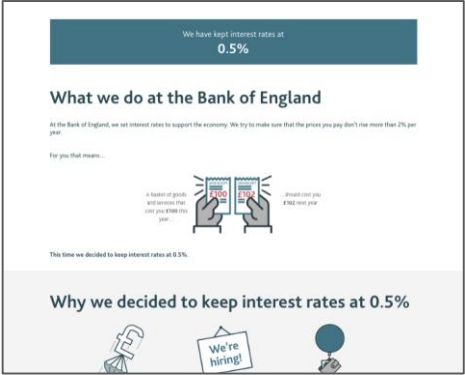
| | Shortened visual summary | Relatable summary |
|---|---|---|
| |  |  |
| **Word count** | 425 | 425 |
| **Reading level (Flesch- Kincaid)** | 6.12 (elementary school) | 4.98 (elementary school) |
| **Visual elements** | Yes | Yes |

*No significant difference in reading grade between versions.*

# Results: relatable material

| | Visual summary (+ visuals) - for reference | Shortened visual summary | Relatable summary |
|---|---|---|---|
| Comprehension score (0-5 scale) | 2.50 | | |
| % understanding most/all (4-5 questions correct) | 27% | _____ | _____ |
| % understanding little (0-1 questions correct) | 28% | _____ | _____ |
| Trust (0-10 scale) | 6.367 | | |

*Treatment effects estimated using OLS regression with demographic controls and robust standard errors. P-values were adjusted using Hochberg's method for multiple comparisons. + p<0.1; * p<0.05; ** p<0.01.*
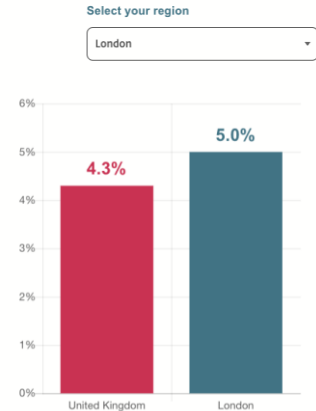
Conclusion

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# Future directions

Improving comprehension further and communicating harder concepts like uncertainty in forecasts

How does (improved) comprehension impact consumer decision making?

How does filtering through the media affect understanding and beliefs?

Unpack the impact of relatable information

# Work and the economy: strategy and projects

Behavioural interventions that deliver prosperity, stability and well-being for citizens

| Improving macroeconomic stability | Improving business productivity and growth | Improving access to high quality work |
|---|---|---|
| Projects: Enhancing central bank communications, measuring inflation expectations | Projects: Making public procurement better, promoting initiatives to improve business performance | Projects: Encouraging adoption of flexible working, lowering burnout and stress |
| Partners: Bank of England, Monetary Authority of Singapore | Partners: Crown Commercial Service, Department for Business, Energy & Industrial Strategy | Partners: private sector organisations, UK Civil Service |

# Thank you

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