LLM Coding Prompts for FAC Monetary Policy Stance

Overview

This document contains the prompts used to code Federal Advisory Council (FAC) monetary policy stances using large language model (LLM) assistance. The coding was performed using Claude (Anthropic) via API.

Model Specification

- **Model**: claude-sonnet-4-20250514 (Claude Sonnet 4)
- **Max tokens**: 1000
- **Temperature**: Default (not specified, uses model default)
- **Deployment**: API calls via anthropic Python package

System Prompt

```
You are an expert coder for Federal Advisory Council monetary policy stances.
You will be given text from FAC quarterly meetings and must code the monetary policy recommendation.
Be precise and consistent. Focus on the explicit language used.
```

Coding Prompt

```
Code the following Federal Advisory Council monetary policy text.

STANCE SCALE (-2 to +2):
-2 = Strongly Hawkish: Explicit call for tightening ("must tighten," "immediate action needed")
-1.5 = Hawkish: Clear lean toward tightening ("should consider tightening")
-1 = Mildly Hawkish: Appropriate but inflation concerns noted ("vigilant on inflation")
-0.5 = Lean Hawkish: Appropriate, slight inflation concern
0 = Neutral: "Appropriate," "well-calibrated," balanced risks
+0.5 = Lean Dovish: Appropriate, slight growth/credit concern
+1 = Mildly Dovish: Appropriate but growth concerns ("patience warranted")
+1.5 = Dovish: Clear lean toward easing ("should consider easing")
+2 = Strongly Dovish: Explicit call for easing ("must ease," "urgent action")

CODING RULES:
1. "Appropriate" with no directional lean = 0
2. Explicit recommendations override caveats
3. Weight balance of concerns (inflation vs growth)
4. Use half-points for hedged positions
5. Crisis/stress language typically indicates dovish lean
```

Respond with ONLY a valid JSON object (no markdown, no explanation):

```
{
  "stance": <float from -2 to +2 in 0.5 increments>,
  "unanimity": <1 if explicit unanimous agreement stated, else 0>,
  "dissent": <1 if minority views noted ("some members," "a few felt"), else 0>,
  "warning": <1 if risk/fragility/concern language present, else 0>,
  "warning_intensity": <1=passing mention, 2=substantive, 3=dominant theme, or null if no warning>,
  "crisis_language": <1 if crisis/turmoil/panic/systemic terms used, else 0>,
  "confidence": <1-5 scale: 1=highly uncertain, 3=neutral, 5=highly confident>,
  "forward_looking": <1 if discusses future risks or recommended future action, else 0>,
  "sectors": "<comma-separated from:
RE_residential,RE_commercial,consumer,CI,agriculture,energy,financial,small_business,international>",
  "inflation_mentioned": <1 if inflation discussed, else 0>,
  "growth_mentioned": <1 if growth/GDP discussed, else 0>,
  "employment_mentioned": <1 if employment/labor discussed, else 0>,
  "credit_mentioned": <1 if credit conditions/lending discussed, else 0>,
  "key_quote": "<most important 15-25 words from text>",
  "reasoning": "<one sentence explaining stance coding>"
}

FAC TEXT TO CODE:
[TEXT INSERTED HERE]
```

Variable Definitions

Primary Outcome Variable

stance (float, -2 to +2)
The monetary policy stance expressed in the FAC text, coded on a continuous scale:
- Negative values indicate hawkish (tightening) preferences
- Positive values indicate dovish (easing) preferences
- Zero indicates neutral/appropriate stance

For analysis, this variable is rescaled to the Weise (2008) scale:
- Weise scale: -1 to +1
- Conversion: weise_stance = stance / 2

Auxiliary Variables

Variable	Type	Description
unanimity	binary	1 if explicit unanimous agreement stated
dissent	binary	1 if minority views noted
warning	binary	1 if risk/fragility language present
warning_intensity	ordinal (1-3)	Intensity of warning language
crisis_language	binary	1 if crisis/turmoil terms used

confidence	ordinal (1-5)	Coder confidence in classification
forward_looking	binary	1 if discusses future risks/actions
sectors	string	Comma-separated list of sectors mentioned
inflation_mentioned	binary	1 if inflation discussed
growth_mentioned	binary	1 if growth/GDP discussed
employment_mentioned	binary	1 if employment discussed
credit_mentioned	binary	1 if credit conditions discussed
key_quote	string	Most important 15-25 words
reasoning	string	One-sentence explanation

Text Extraction Protocol

The monetary policy section was extracted from FAC documents using the following hierarchy of patterns:

1. **Explicit headers**: "MONETARY POLICY", "Monetary Policy", "Current Monetary Policy"
2. **Question patterns**: "What is the Council's view...", "How does the Council view..."
3. **Item numbering**: "Item X: Monetary Policy"
4. **Keyword density**: Paragraphs containing 2+ policy keywords (monetary policy, interest rate, Federal Reserve, FOMC, tightening, easing, accommodation, current stance, federal funds, policy stance)

Maximum text length passed to model: 4,000 characters

Validation

Validation was performed against Weise (2008) for the overlap period 1986-1999.

Agreement Statistics

Metric	Value
Overlapping quarters	130
Pearson correlation	0.91
Linearly-weighted Cohen's κ	0.88
Exact agreement rate	83.8%
Adjacent agreement (±0.5)	100%
Directional reversals	0

Interpretation

According to Landis and Koch (1977), $\kappa > 0.80$ indicates "almost perfect" agreement. The absence of directional reversals (cases where one coder scored hawkish and the other dovish) provides additional confidence in measurement validity.

Replication Notes

1. **API Key**: Set ANTHROPIC_API_KEY environment variable
2. **Rate Limiting**: Default 1 second between API calls
3. **Error Handling**: 3 retries with exponential backoff on API errors

4. **JSON Parsing**: Strips markdown code fences if present in response

References

Landis, J.R. and Koch, G.G. (1977) The measurement of observer agreement for categorical data. Biometrics, 33(1): 159-174.

Weise, C.L. (2008) Private sector influences on monetary policy in the United States. Journal of Money, Credit and Banking, 40(2-3): 441-462.

Source Code

The complete Python implementation is available in `fac_stance_coder_claude.py` in this replication package.