# Auto-EPU

Hsiu-Hsuan(Jacky) Yeh

2024-02-12

# Add Defition Of EPU Into Prompt

You are building indices of policy-related economic uncertainty based on { country } newspaper coverage frequency, with the aim to capture uncertainty about who will make economic policy decisions, what economic policy actions will be undertaken and when, and the economic effects of policy actions (or inaction) –including uncertainties related to the economic ramifications of "non-economic" policy matters, e.g., military actions.
The process of building the index is as follows:
1. Define three sets of keywords, E, P, U, containing keywords corresponding to the economy, policy, and uncertainty, respectively.
2. Given a collection of news articles x, an article is considered related to policy-related economic uncertainty if it "meets the following three criteria simultaneously":

# Add Defition Of EPU Into Prompt

- Contains a word belonging to the E set
- Contains a word belonging to the P set
- Contains a word belonging to the U set

3. The index is calculated as the number of news articles related to policy-related economic uncertainty divided by the total number of news articles in x.

Your task is to "define and list {n_words} keywords in bullet points for each E, P, U set". Eeach keyword must be a "simple and general word", and thus exclude the composite word, especially various uncertainty and policy categories.

Response in { language } and no need of English translation.

# Compared to Human Annotation

## Policy Category

| (1) country | (2) vote | (3) definition |
|---|---|---|
| TW | 8.571429 | 8.571429 |
| CN | 12.903226 | 9.677419 |
| JP | 6.250000 | 9.375000 |
| KR | 17.391304 | 13.043478 |
| US | 25.000000 | 37.500000 |
| AU | 23.076923 | 15.384615 |

Note: this table show the converage percentage of LLM suggestion over human experts. The referenced keywoeds of Taiwan(TW) come from Chen et al. (2024), China(CN) come from Huang and Luk (2020), Japan(JP) come from Arbatli Saxegaard et al. (2022), and US, Australia(AU), South Korea(KR) come from Baker et al. (2016)

# Add Defition Of EPU Into Prompt With Self Consistency

You are building indices of policy-related economic uncertainty based on { country } newspaper coverage frequency, with the aim to capture uncertainty about who will make economic policy decisions, what economic policy actions will be undertaken and when, and the economic effects of policy actions (or inaction) –including uncertainties related to the economic ramifications of "non-economic" policy matters, e.g., military actions.

The process of building the index is as follows:

1. Define three sets of keywords, E, P, U, containing keywords corresponding to the economy, policy, and uncertainty, respectively.
2. Given a collection of news articles x, an article is considered related to policy-related economic uncertainty if it "meets the following three criteria simultaneously":

# Add Defition Of EPU Into Prompt with Self Consistency

- Contains a word belonging to the E set
- Contains a word belonging to the P set
- Contains a word belonging to the U set

3. The index is calculated as the number of news articles related to policy-related economic uncertainty divided by the total number of news articles in x.

Please proceed with the following tasks step by step.

1. "Define and list { n_words } keywords in bullet points for each E, P, U set". Each keyword must be a "simple and general word", and thus exclude the composite word, especially various uncertainty and policy categories.

# Add Defition Of EPU Into Prompt with Self Consistency

2. Provide an example of a news article, including its title and content, which is related to policy-related economic uncertainty.
3. Identify a word from the article in task 2 that belongs to the set defined in task 1 as E
4. Identify a word from the article in task 2 that belongs to the set defined in task 1 as P
5. Identify a word from the article in task 2 that belongs to the set defined in task 1 as U

"Warning: The words listed in tasks 3, 4, and 5 must be consistent with those you defined in task 1; do not list words that you did not define in the E, P, U sets."

Response in { language } and no need of English translation.

# Compared to Human Annotation

## Policy Category

| (1) country | (2) vote | (3) definition | (4) definition with SC |
|---|---|---|---|
| TW | 8.571429 | 8.571429 | 17.142857 |
| CN | 12.903226 | 9.677419 | 16.129032 |
| JP | 6.250000 | 9.375000 | 12.500000 |
| KR | 17.391304 | 13.043478 | 13.043478 |
| US | 25.000000 | 37.500000 | 50.000000 |
| AU | 23.076923 | 15.384615 | 23.076923 |

Note: this table show the converage percentage of LLM suggestion over human experts. The referenced keywoeds of Taiwan(TW) come from Chen et al. (2024), China(CN) come from Huang and Luk (2020), Japan(JP) come from Arbatli Saxegaard et al. (2022), and US, Australia(AU), South Korea(KR) come from Baker et al. (2016)

# References


**Baker, Scott R., Nicholas Bloom, and Steven J. Davis**, "Measuring Economic Policy Uncertainty*," *The Quarterly Journal of Economics*, November 2016, *131* (4), 1593–1636.

**Chen, Chung-Chi, Yu-Lieh Huang, and Fang Yang**, "Semantics Matter: An Empirical Study on Economic Policy Uncertainty Index," *International Review of Economics & Finance*, January 2024, *89*, 1286–1302.

**Huang, Yun and Paul Luk**, "Measuring Economic Policy Uncertainty in China," *China Economic Review*, February 2020, *59*, 101367.

**Saxegaard, Elif C. Arbatli, Steven J. Davis, Arata Ito, and Naoko Miake**, "Policy Uncertainty in Japan," *Journal of the Japanese and International Economies*, June 2022, *64*, 101192.