



# What Does the Indian Parliament Discuss?

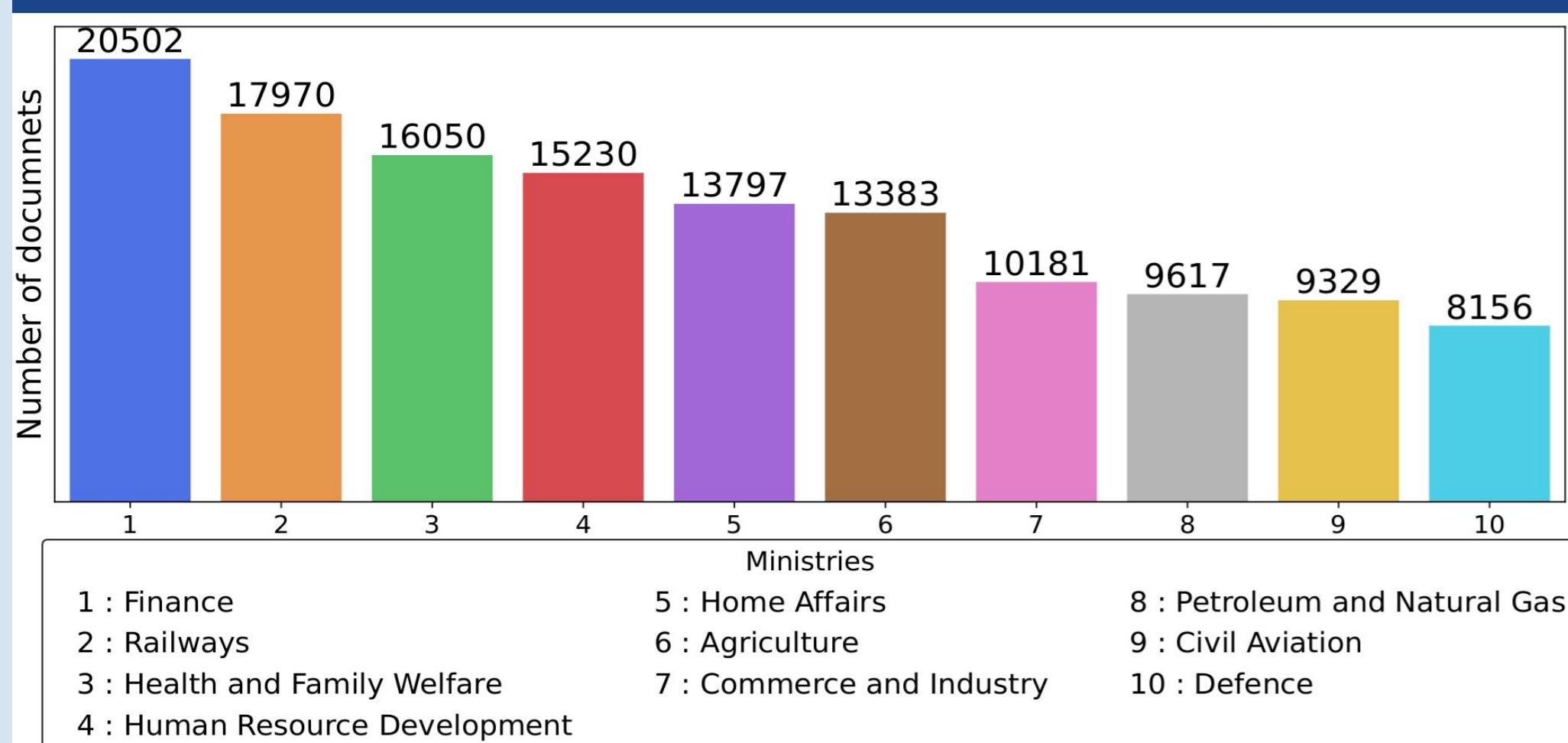
## An Exploratory Analysis of the Question Hour in the Lok Sabha



### Dataset

- ❖ **Name:** TCPD-IPD<sup>[1]</sup>
- ❖ **Type:** Indian parliamentary data of the question hour session
- ❖ **Questions are-**
  - **Asked by:** Members of Parliament
  - **Answered by:** Respective Ministry
- ❖ **Time span:** 1999-2019
- ❖ **Size:** 298,292 pairs of questions and answers
- ❖ **Language:** English

### Data Distribution – Ministry wise

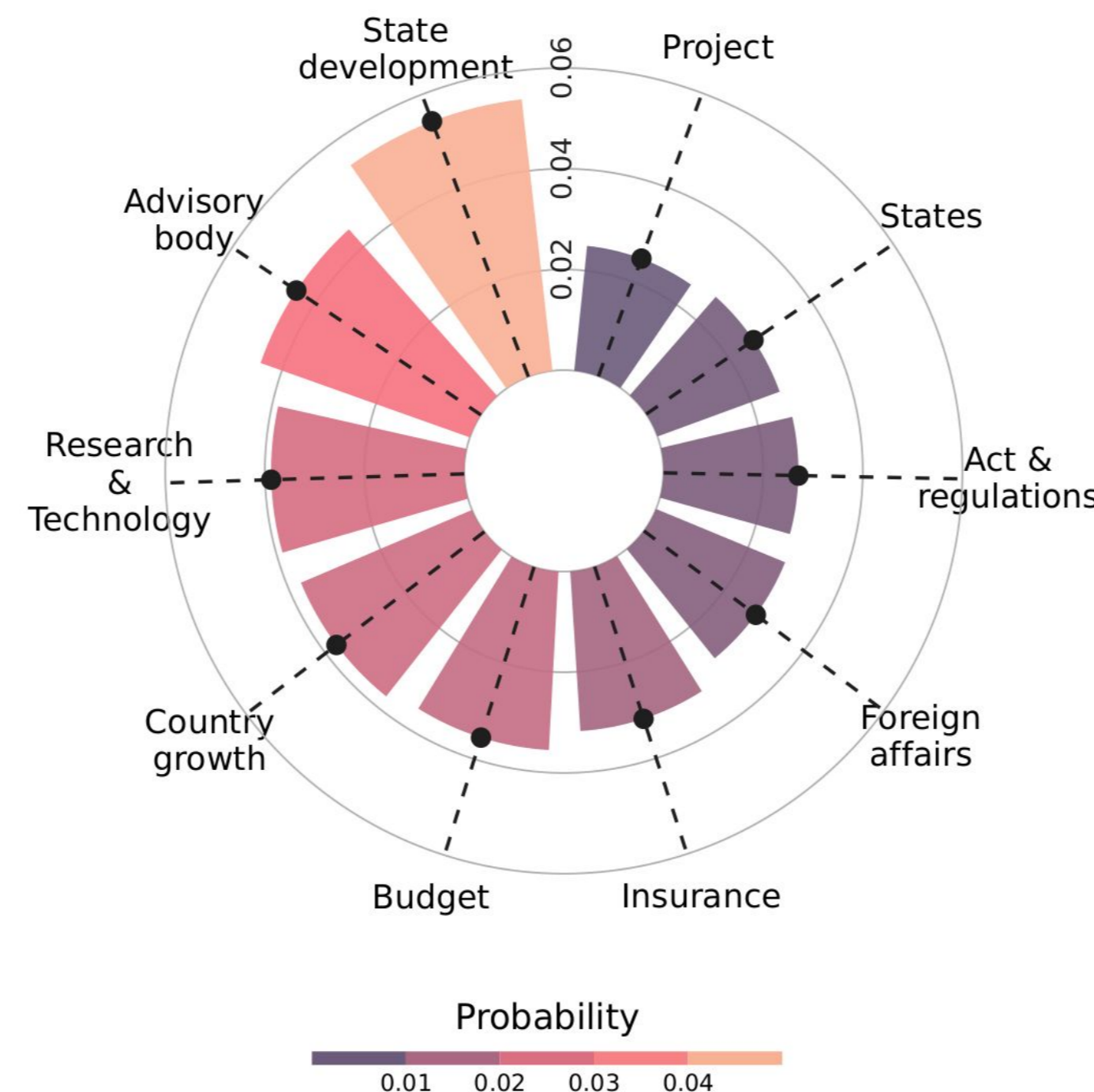


Top-10 ministries and their data distribution.

#### Findings:

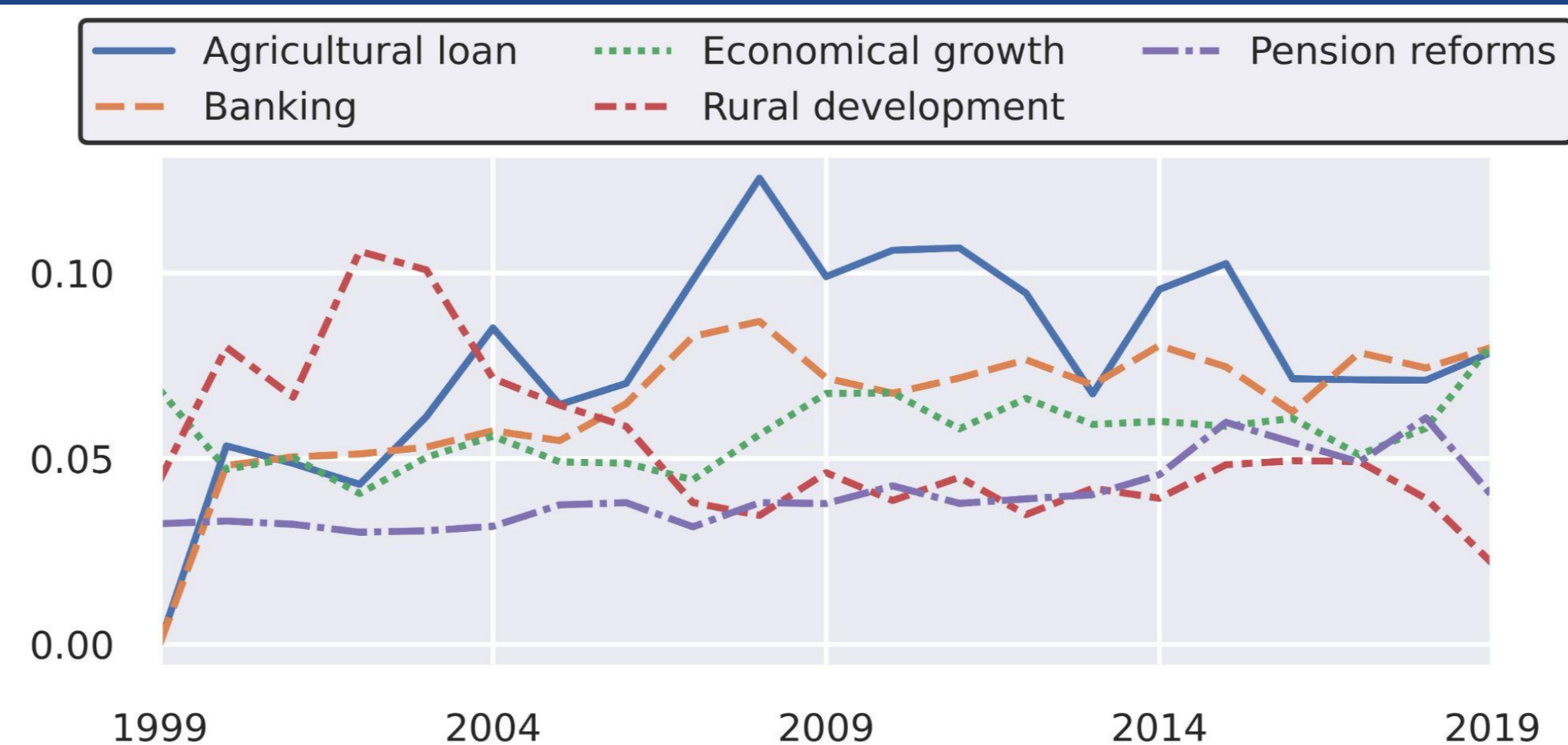
- ❖ There are 85 different ministries.
- ❖ Top-10 ministries constitute around 50% of the entire dataset.
- ❖ *Finance, Railways, and Health and Family Welfare* are the **top-3 ministries**.

### Hot Topics



Top-10 most discussed topics in the Indian Parliament.

### Temporal Evolution of Topics



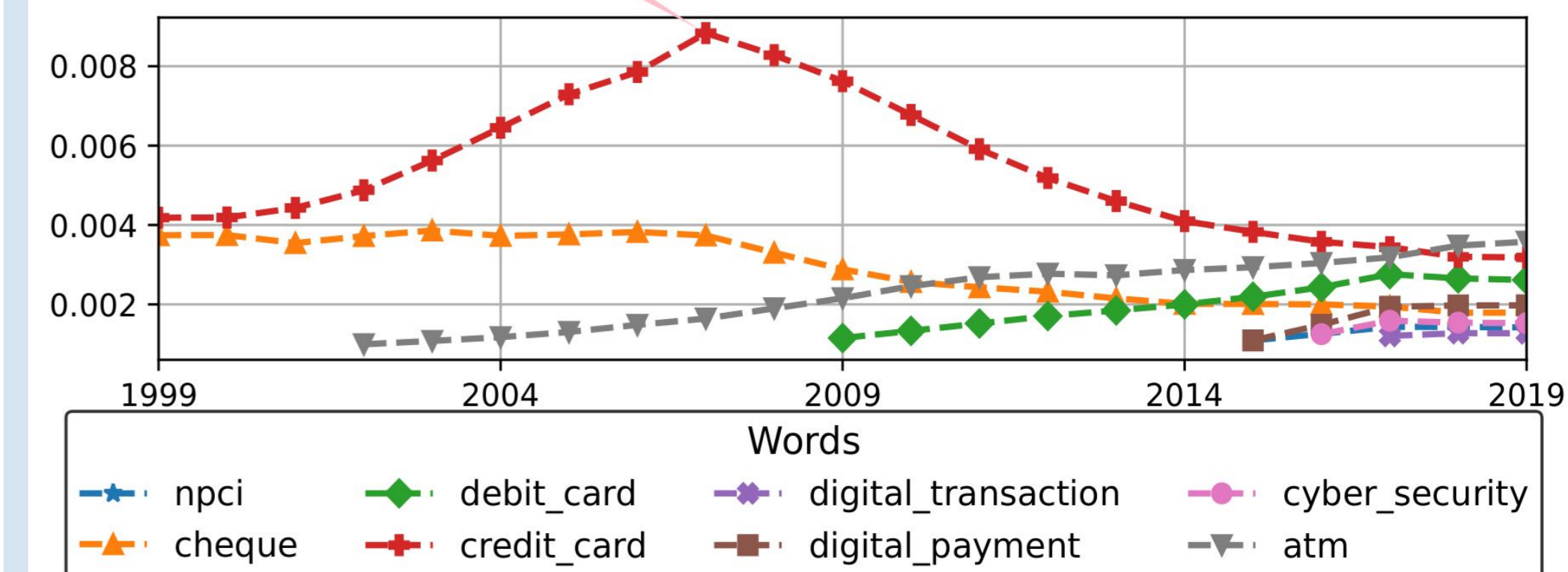
Temporal evolution of 5 selected topics from Ministry of Finance using LDAseq<sup>[2]</sup>

#### Findings:

- ❖ Peaks in the topic *'Agricultural loan'* in 2008 and 2014 relate to the debt waivers in agricultural loan announced at that time.
- ❖ Focus on *'Rural development'* slowly reduces.
- ❖ Other topics like *'Banking', 'Economical growth'* and *'Pension schemes'* remain stable.

### Topic Words Over Time

Doc\_1 : whether it has come to the notice of the Government that credit card number and CW number have been misused for fraudulent buying of e-tickets and other economic crimes;  
 Doc\_2 : the details of Banks which are issuing Kisan Credit Cards in the State of Andhra Pradesh;  
 Doc\_3 : whether the Government is aware of the credit card frauds being committed by well known internet service providers;



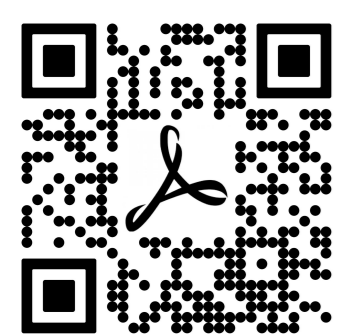
Evolution of the topic *'Banking'* from the Ministry of Finance using LDAseq<sup>[2]</sup>

#### Findings:

- ❖ The word *'credit\_card'* peaks in 2007 relate to three major happenings at that time:
  - Growing credit card frauds in India.
  - Sudden rise in credit card interest rates.
  - Major improvements in Kisan Credit Card (KCC) scheme.
- ❖ Steady rise in discussion on *'debit\_card'* correlates with the increasing adoption of debit cards.
- ❖ With demonetization and increased government emphasis on cashless transaction, terms like *'atm', 'npci', 'digital\_transaction'* and *'cyber\_security'* gain prominence.
- ❖ Popularity of cash-transaction medium like *'cheque'* reduces.

#### REFERENCES:

- [1] Trivedi Centre for Political Data, Ashoka University. (2019). TCPD-IPD: TCPD Indian Parliament Dataset (Question Hour) 1.0.  
 [2] David M. Blei and John D. Lafferty. 2006. Dynamic topic models. In Proceedings of the 23rd international conference on Machine learning.



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