



Node XL

Social network analysis of
Central Banks' communication

Introduction

Social media has changed the way people communicate and given all of us an immediate and convenient way to connect and share with other people around the world who also share our interests and reach up-to-date topics in the society.

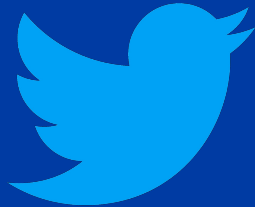
Central Banks are one of the many organizations that use these tools to help widely communicate with the public. In recent decades, most of them use **Twitter**, one of the most social networking site, as their new medium of communication.



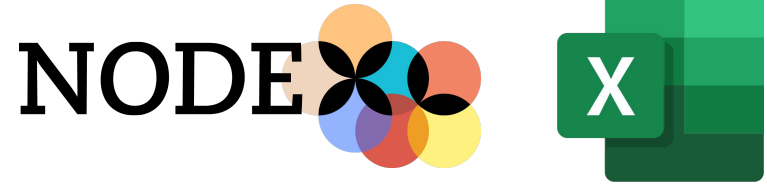
Sources of Data

Central Bank from

@BankofThailand
@RBI
@BangkoSentral
@Bank_Indonesia



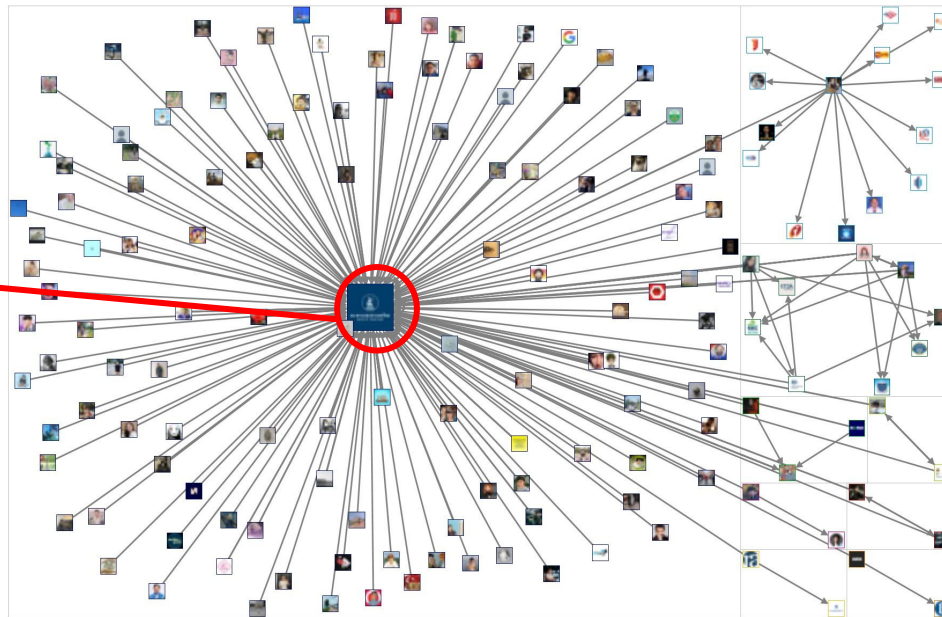
Methodology



- Use NodeXL to import data from twitter.
- Limit data to 3000 tweets
- Create graph for comparison in Excel using analyzed data from NodeXL.

Thailand (@BankofThailand)

Network chart of central bank of Thailand



Created with NodeXL Pro (<http://nodexl.codeplex.com/>) from the Social Media Research Foundation (<http://www.srnfoundation.org/>)



Bank of Thailand

@bankofthailand

ธนาคารแห่งประเทศไทย เพื่อร่วมทางทางการเงิน ที่คอยให้คำแนะนำและความรู้ ให้คุณมี
ภูมิคุ้มกันทางการเงินที่ดี เพื่อความเป็นอยู่ที่ยั่งยืนของไทย

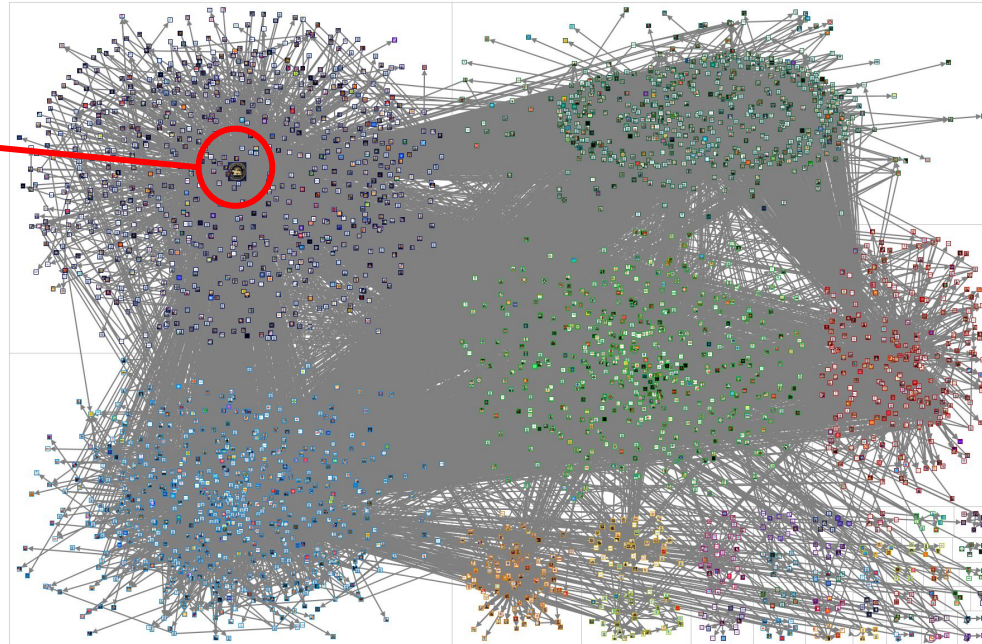
[Translate bio](#)

© พระนคร, กรุงเทพมหานคร [bot.or.th](#) Joined June 2558 BE

152 Following 46.4K Followers

India (@RBI)

Network chart of central bank of India



Created with NodeXL Pro (<http://nodexl.codeplex.com/>) from the Social Media Research Foundation (<http://www.smfoundation.org/>)



ReserveBankOfIndia

@RBI

Follow

Reserve Bank of India [@rbisays](#) [facebook.com/RBISays](#) [@RBIsays](#)

📍 India [rbi.org.in](#) 🕒 Born 1 April 📅 Joined January 2555 BE

1 Following 1.3M Followers

Philippines (@BangkoSentral)

Network chart of central bank of Philippines



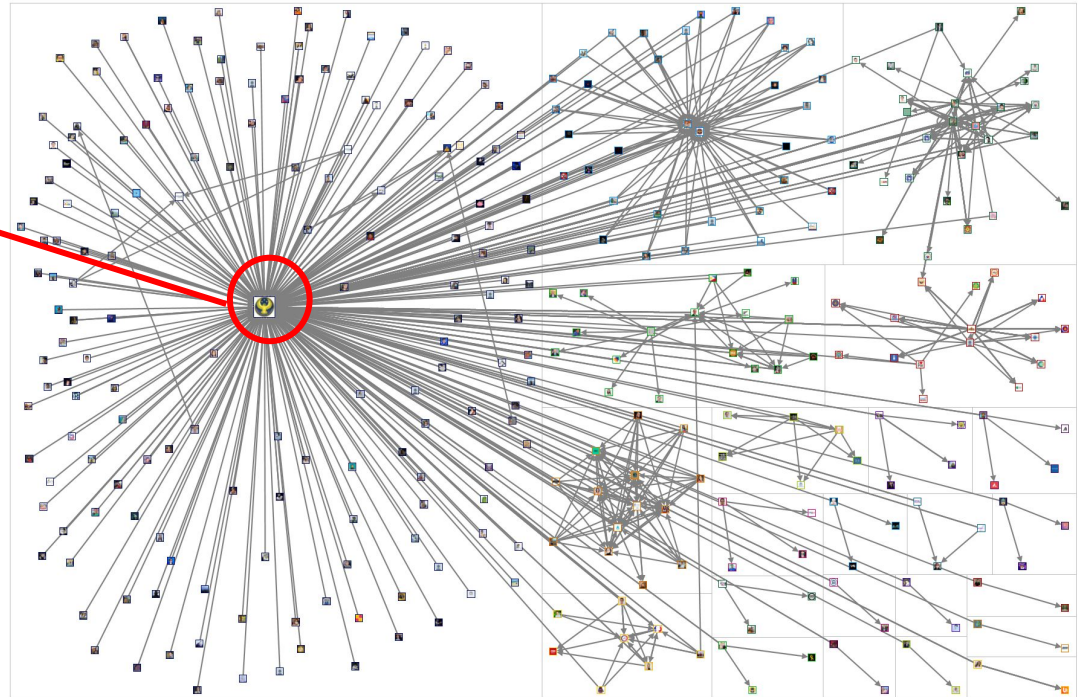
Bangko Sentral

@BangkoSentral

The official Twitter account of the central bank of the Philippines [#BSP](#)
[#BangkoSentral](#)

📍 Manila, Philippines [bsp.gov.ph](#) 📅 Joined August 2553 BE

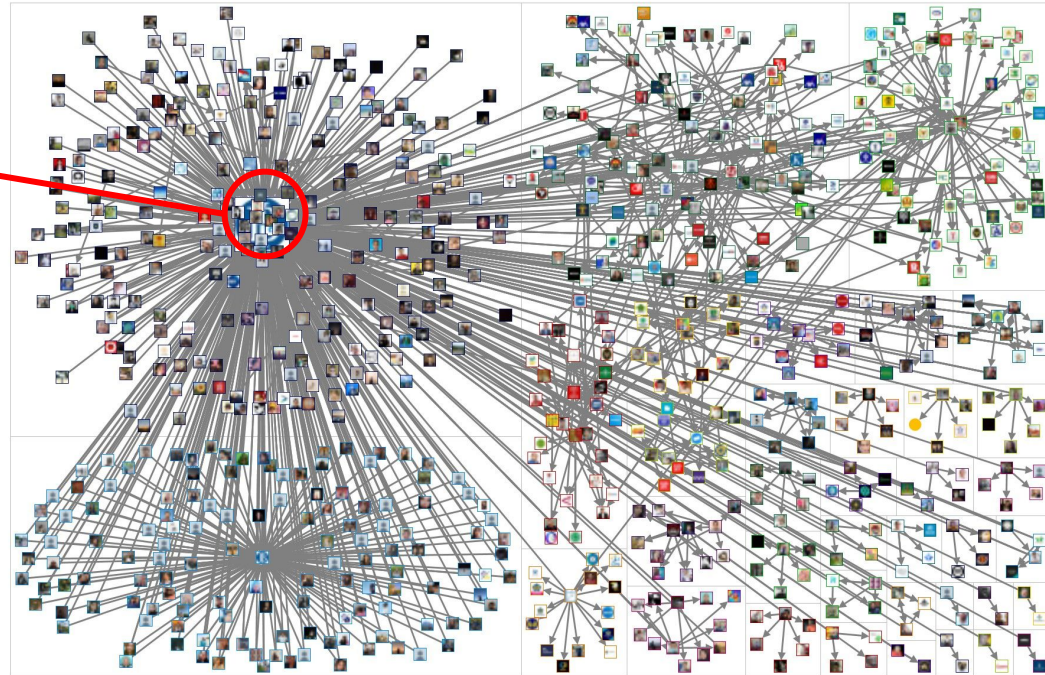
460 Following 46.7K Followers



Created with NodeXL Pro (<http://nodexl.codeplex.com/>) from the Social Media Research Foundation (<http://www.srmfoundation.org/>)

Indonesia (@Bank_Indonesia)

Network chart of central bank of Indonesia



Key Network Statistic

3,000 tweets

Central Bank	Vertices	Unique Edges	Total Edges	Maximum Geodesic Distance (Diameter)	Average Geodesic Distance	Graph Density	Modularity
Bank of Thailand 	160	143	280	4	2.217969	0.006918239	0.337675
Reserve Bank of India 	3037	10430	24496	4	2.772679	0.001509382	0.338373
Bangko Sentral 	329	453	915	4	2.418049	0.005235748	0.419159
Central Bank of Indonesia 	775	928	2961	4	2.710716	0.002190547	0.295073

Data as of 20 September 2021, 8.30pm

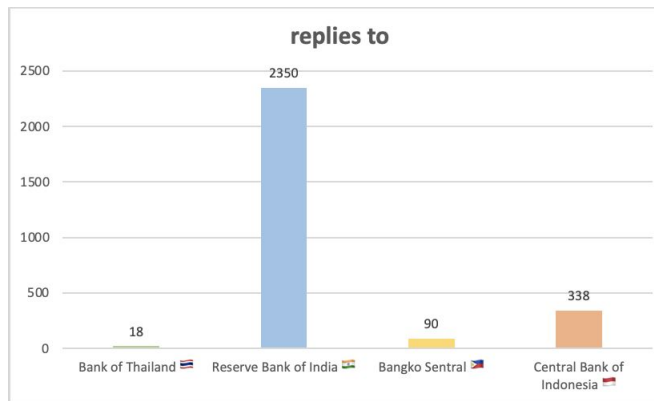
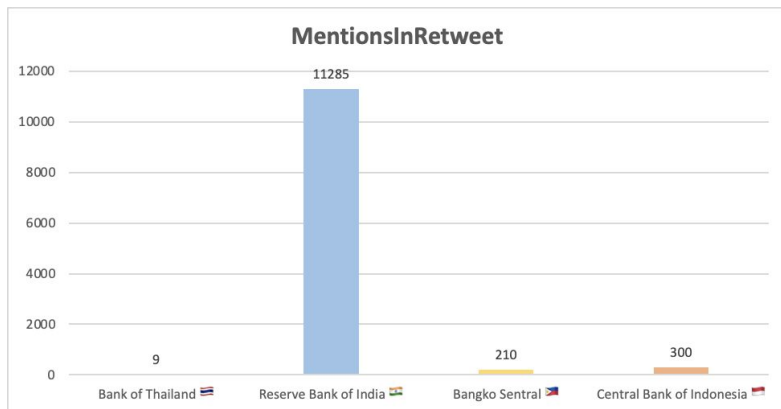
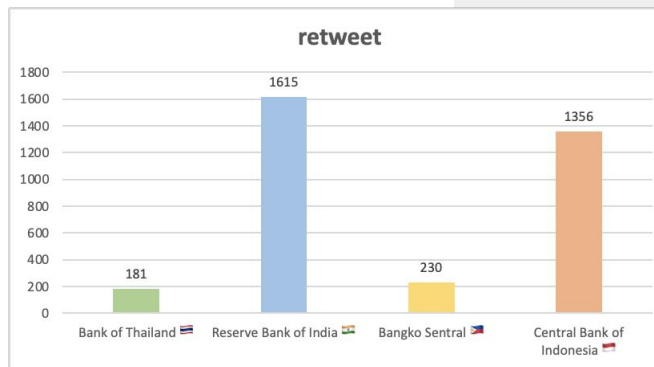
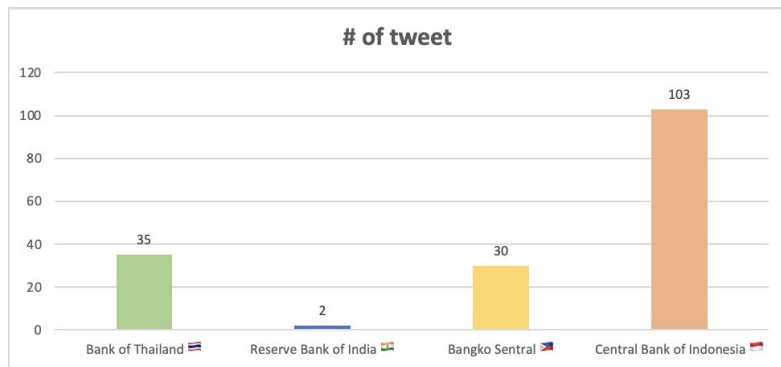
Number of main messaging activities among 4 countries central bank accounts

3,000 tweets

Central Bank	# of tweet	retweet	replies to	MentionsInRetweet
Bank of Thailand 	35	181	18	9
Reserve Bank of India 	2	1615	2350	11285
Bangko Sentral 	30	230	90	210
Central Bank of Indonesia 	103	1356	338	300

Data as of 20 September 2021, 8.30pm

Number of main messaging activities among 4 countries central bank accounts 3,000 tweets



Conclusion

- Even though we limit 3000 tweets for the samples but **India have the most messaging activity, interactions and engagement among 4 countries** followed by Indonesia.
- Sub groups of Indonesia, India and Philippines are quite similar , but Thailand has the least sub groups which means that Thai twitter users would **rather retweet the message than taking the message and communicate in their sub networks.**
- The network chart of India is the most complex which referred to the **highest number of total edges** among four countries, meaning that there are a lot of connections, but **doesn't mean they are connected to each others** out of the number of unique edges.

Policy Recommendation

From our analysis, India has the best communications with their followers.

- First, Reserve bank of India (RBI) account is an **active account** that normally retweet and tweet daily.
- Secondly, the most important network of Reserve bank of India (RBI) is **@RBIsays** which is an account that **helps spreading the official message and increases engagement** which the other countries do not have.
- Lastly, apart from official announcements, the account **should interact with other official account** as well.

Therefore, other countries should **take India as an example** to improve communications on their own twitter account.



Group members

Lalita Techaphunpisut 6104641268

Prima Donmuang 6104640401

Pattera Rattanatanatevilai 6104640211

Piyachat Kliniam 6104640880