

Social Network Analysis



Project Background



FEDERAL RESERVE

THREE KEY OBJECTIVES FOR MONETARY POLICY IN THE FEDERAL RESERVE ACT

- MAXIMIZING EMPLOYMENT
- STABILIZING PRICES
- MODERATING LONG-TERM INTEREST RATES



BANK OF THE ENGLAND

THE BANK BECAME AN INDEPENDENT PUBLIC ORGANIZATION IN 1998, WHOLLY OWNED BY THE TREASURY SOLICITOR ON BEHALF OF THE GOVERNMENT, BUT WITH INDEPENDENCE IN SETTING MONETARY POLICY.

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Project Background



BANK OF CANADA

BANK OF CANADA ACT, IS RESPONSIBLE FOR FORMULATING CANADA'S MONETARY POLICY, AND FOR THE PROMOTION OF A SAFE AND SOUND FINANCIAL SYSTEM WITHIN CANADA. THE BANK OF CANADA IS THE SOLE ISSUING AUTHORITY OF CANADIAN BANKNOTES.



BANK OF THAILAND

THE BANK OF THAILAND'S MISSION IS TO PROVIDE A STABLE FINANCIAL ENVIRONMENT FOR SUSTAINABLE ECONOMIC GROWTH IN ORDER TO ACHIEVE CONTINUOUS IMPROVEMENT IN THE STANDARD OF LIVING OF THE PEOPLE OF THAILAND.

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Sources of Data



Federal Reserve ✓
@federalreserve
The official Twitter channel of the Board of Governors of the Federal Reserve System. Privacy Policy: [federalreserve.gov/privacy.htm](https://www.federalreserve.gov/privacy.htm)
Washington, D.C. [federalreserve.gov](https://www.federalreserve.gov)
Joined March 2552 BE
30 Following 779.7K Followers
Not followed by anyone you're following

 @federalreserve



Bank of Canada ✓
@bankofcanada
Canada's central bank. Promoting the country's economic and financial welfare. Keeping inflation low, stable and predictable. En français : @banqueducanada
Ottawa, Canada [bankofcanada.ca](https://www.bankofcanada.ca)
Joined June 2551 BE
36 Following 191.7K Followers
Not followed by anyone you're following

 @bankofcanada



Bank of England ✓
@bankofengland
As the UK's central bank we work to ensure low inflation, trust in banknotes and a stable financial system. Follow our @BoE_PressOffice and @boemuseum accounts
[bankofengland.co.uk](https://www.bankofengland.co.uk) Joined January 2552 BE
1,452 Following 340.2K Followers
Not followed by anyone you're following

 @bankofengland



Bank of Thailand ✓
@bankofthailand
ธนาคารแห่งประเทศไทย เพื่อร่วมทางทางการเงิน ที่คอยให้คำแนะนำและความรู้ ให้คุณมีภูมิคุ้มกันทางการเงินที่ดี เพื่อความ เป็นอยู่ที่ดีย่างยั่งยืนของไทย
Translate bio
พระนคร, กรุงเทพมหานคร [bot.or.th](https://www.bot.or.th)
Joined June 2558 BE
152 Following 46.4K Followers

 @bankofthailand



NodeXL



Microsoft
Excel

INTRODUCTION
AND
PROJECT'S
BACKGROUND

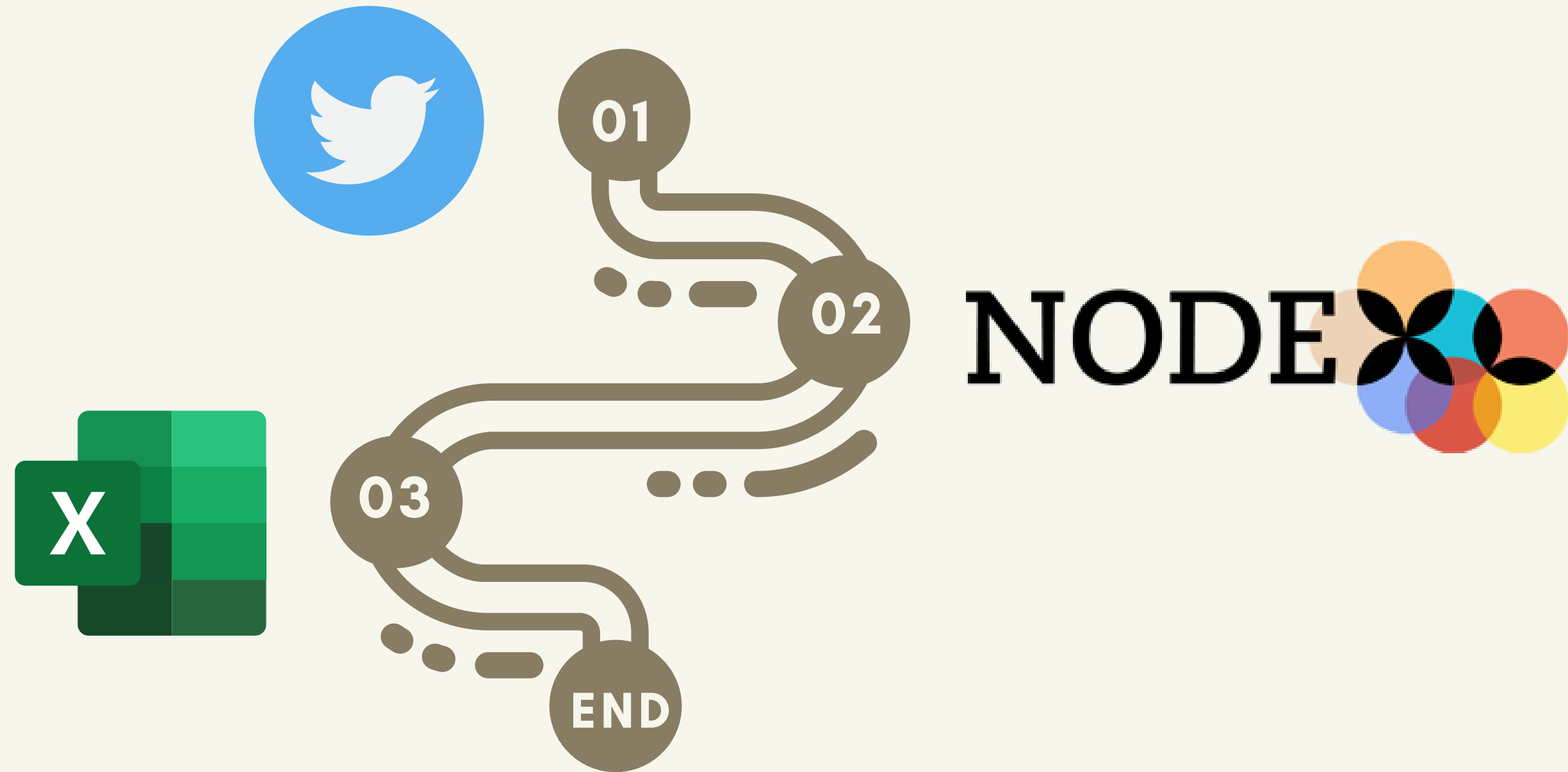
SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Analytical Methodologies



INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Results: *Network charts of twitter message originated from 4 central banks*

Federal Reserve



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

Conclude

- FED HAS THE HIGHEST OF SUBGROUP IN TWITTER
- FED SUCCESS IN COMMUNICATE WITH OTHERS THROUGH TWITTER

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Results: *Network charts of twitter message originated from 4 central banks*

Bank of England



Conclude

- BOE HAS HIGHER NUMBER OF SUBGROUP THAN BOC AND BOT
- BOE CAN COMMUNICATE WITH PEOPLE EFFECTIVELY USING TWITTER

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

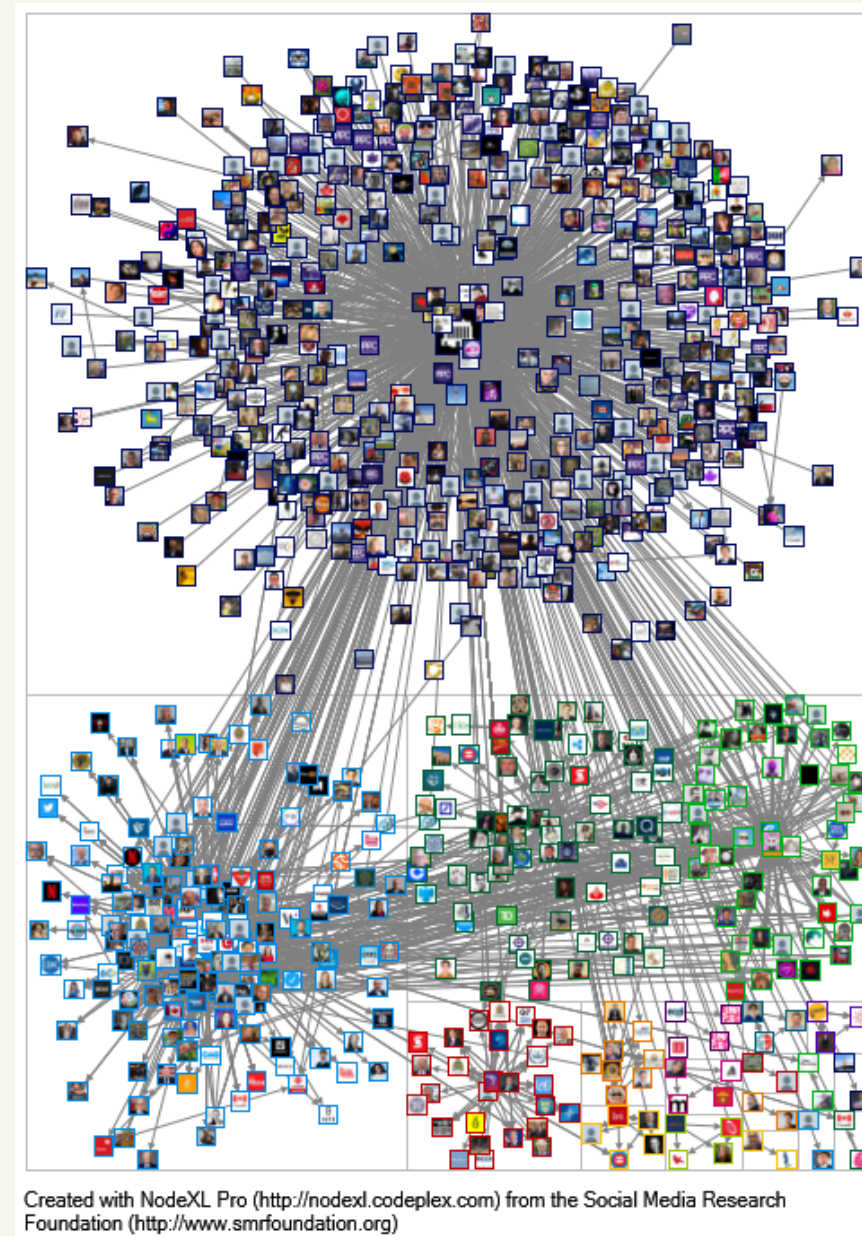
BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Results: *Network charts of twitter message originated from 4 central banks*

Bank of Canada



Conclude

- BOC SEEMS TO HAVE LOW NUMBER OF SUBGROUP BUT STILL HIGHER THAN BANK OF THAILAND OFFICIAL ACCOUNT

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

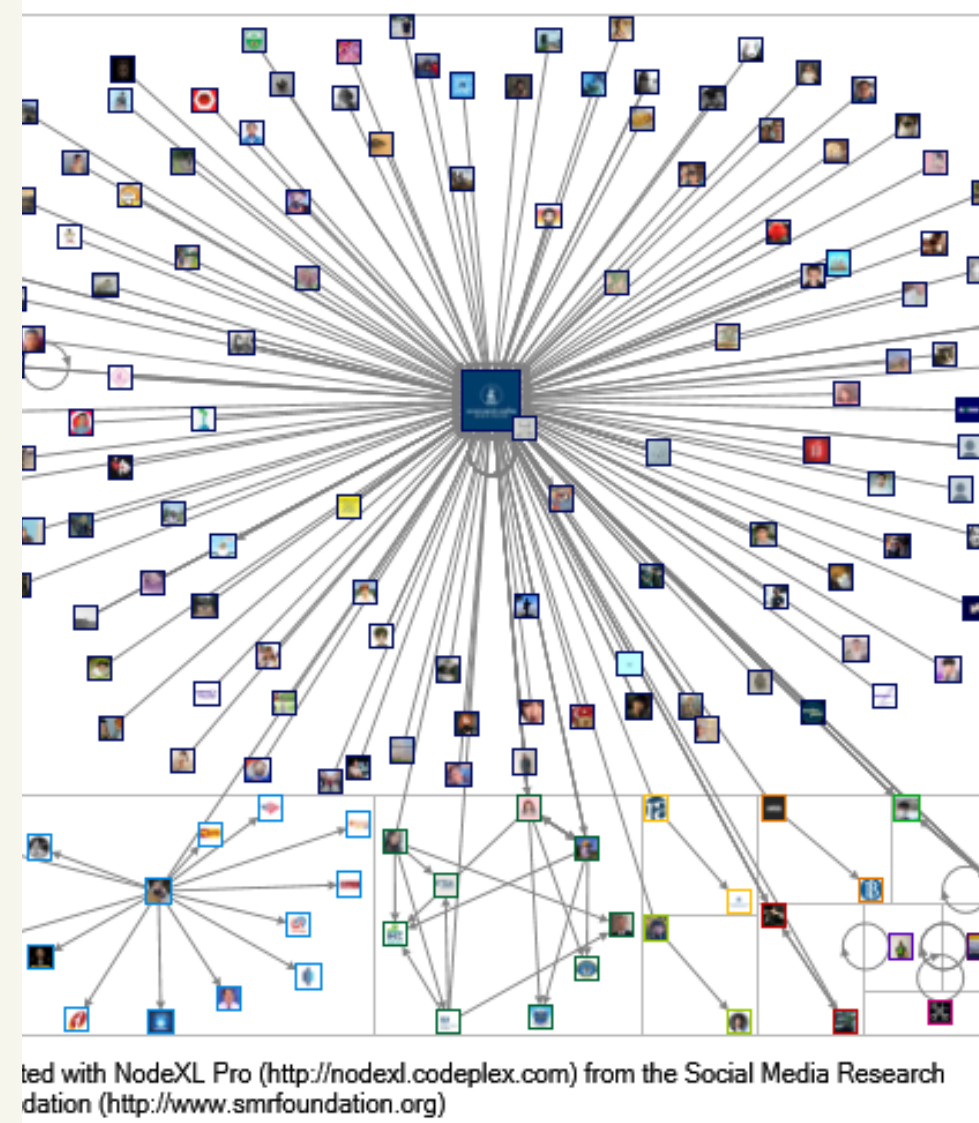
BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Results: *Network charts of twitter message originated from 4 central banks*

Bank of Thailand



Conclude

- BOT HAS THE LOWEST NUMBER OF SUBGROUP COMPARED TO OTHER 3 CENTRAL BANKS
- THIS CAN IMPLIES THAT BOT INEFFECTIVELY DISTRIBUTE INFORMATION VIA TWITTER

INTRODUCTION
AND
PROJECT'S
BACKGROUND

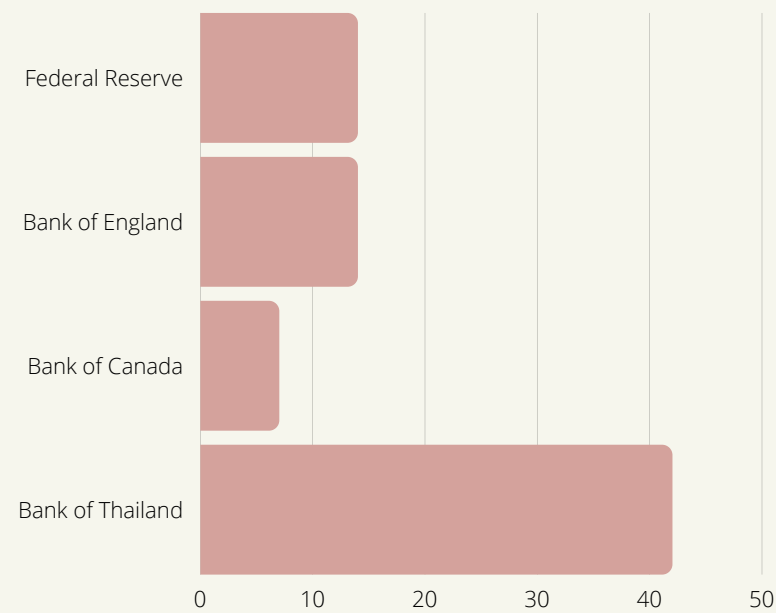
SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

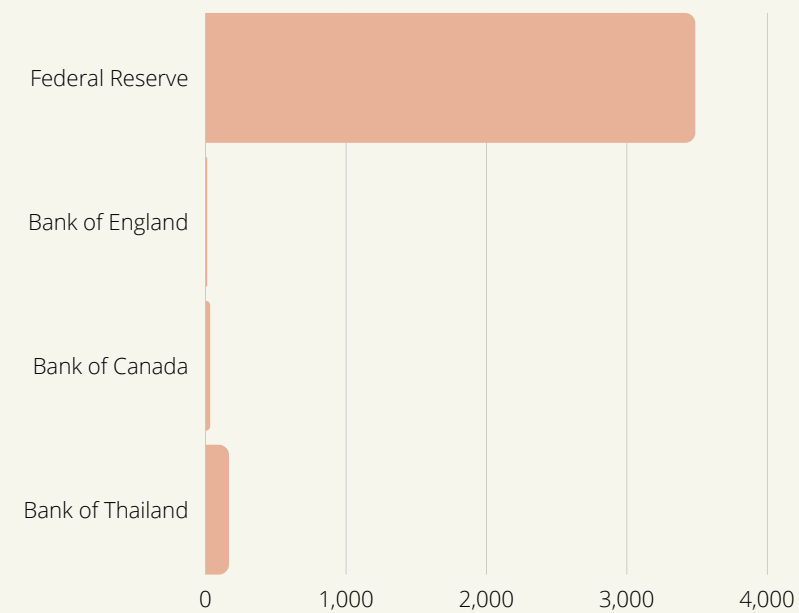
RESULTS

POLICY
RECOMMENDATIONS

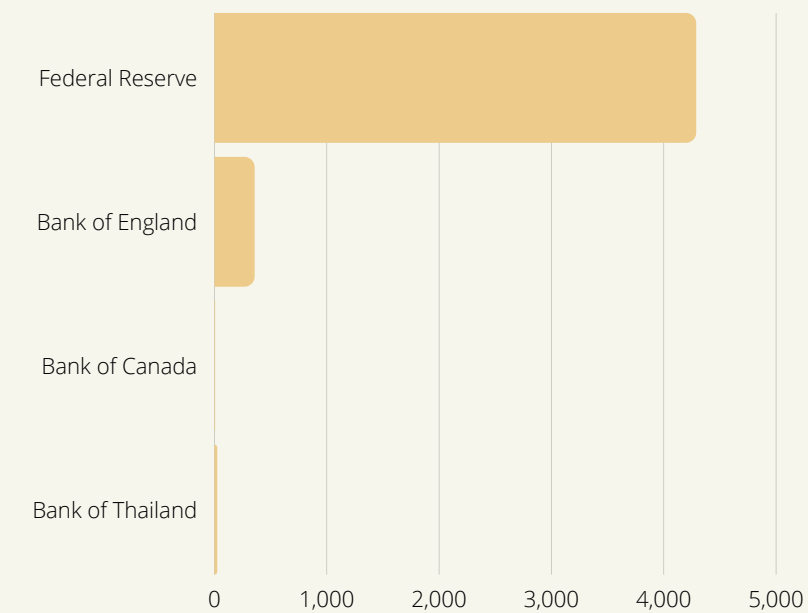
Results: *Main messaging activities among 4 twitter networks*



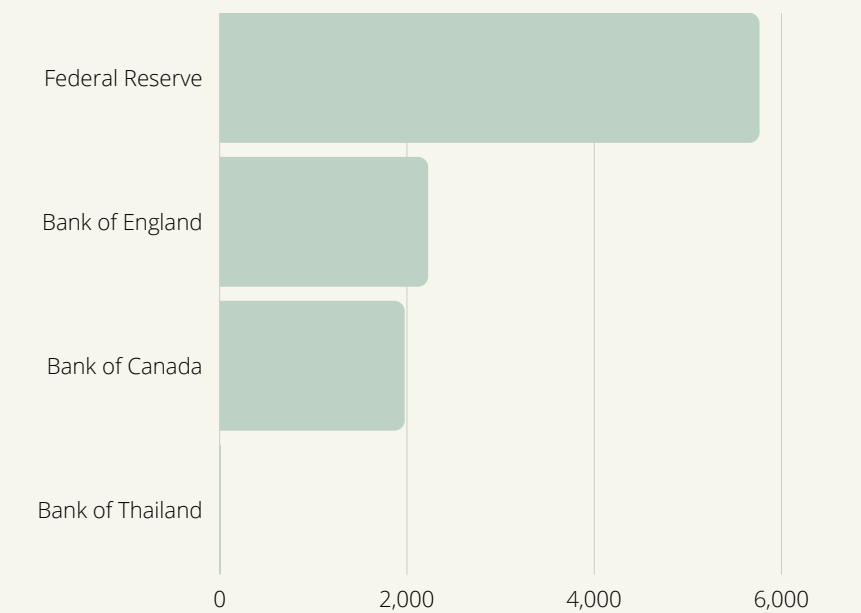
Numbers of tweet



Numbers of retweet



Numbers of replies



Numbers of MentionsInRetweet

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Results: *Key network statistics among 4 twitter networks*

	FEDERAL RESERVE	BANK OF ENGLAND	BANK OF CANADA	BANK OF THAILAND
VERTICES	6402	1520	898	154
UNIQUE EDGES	13333	3856	2121	144
TOTAL EDGES	47606	5016	4784	278
MAXIMUM GEODESIC DISTANCE	4	4	4	4
AVERAGE GEODESIC DISTANCE	2.3817	2.6610	2.4936	2.2296
GRAPH DENSITY	0.0004	0.0019	0.0032	0.0073
MODULARITY	0.2432	0.6076	0.3748	0.3419

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Summarize key findings

- BOE HAS THE HIGHEST MODULARITY WHICH IS 0.6076 MEANING THAT ITS SUB GROUPS HAVE HIGH QUALITY
- THE BANK CAN PROVIDE INFORMATION TO THE CITIZEN USING TWITTER
- THE MORE VALUE VALUR OF UNIQUE EDGES, THE MORE NUMBER OF CONNECTIONS

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

Policy recommendations

- THE OFFICIAL ACCOUNT SHOULD RESPOND TO CITIZENS AND CARRY ON CONVERSATIONS.
- GOVERNMENT SHOULD ENSURE THAT THE SOCIAL MEDIA CONTENT IS ACCESSIBLE EVERYONE, INCLUDING USERS WITH DISABILITIES.
- MAKE GOVERNMENT'S CONTACT INFORMATION AVAILABLE ON YOUR SOCIAL MEDIA ACCOUNT PAGE.

INTRODUCTION
AND
PROJECT'S
BACKGROUND

SOURCES
OF DATA

BRIEFS OF
ANALYTICAL
METHODOLOGIES

RESULTS

POLICY
RECOMMENDATIONS

6104640088 RUNGKIT RUTPONGSOPIT
6104640674 PAVITA KRIATHKUNGWALKAI
6104641060 SUCHAYA CHULDILOK
6104641375 PANIDA PHUMPHOTHINGAM

Thank you!