Regulating Big Tech

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Motivations

- In the last 20 years we have seen a dramatic rise in size and market value of the so-called digital platforms (online businesses that facilitate commercial interactions between at least two different groups).

- Often referred to as Big Tech

- This rise has generated a debate on <u>whether</u> and <u>how</u> Big Tech should be regulated

- This debate has mostly taken place within countries or economic areas

- Yet, there are important international and geopolitical dimensions in this discussion

- Today I will focus on those

What Is Different in a Digital World

1. Economies of scale

2. Economies of scope

3. Network effects

4. Zero marginal costs

5. Switching costs create a large lock-in effect

Market Power in the Digital World

- These forces lead to

1. Digital markets are prone to concentration

2. Competition for the market

3. Different type of competition
   i. Benefits limited in time
   ii. Other costs

"imo, photos (along with comprehensive/smart contacts and unified messaging) is perhaps one of the most important ways we can make switching costs very high for users."

Global Nature of Digital Markets

1. No transportation costs

2. No service cost

3. Zero marginal cost

=> Instant global reach (in the absence of trade barriers)

TECHNOLOGY: TIME TO REACH MASS ADOPTION

Defined as a 25% of market access

Present airplanes can carry more passengers and their flying capacity is much more

Telephones emerged and along with local call facility they offered international calls

Radio is an audio platform than ever with the arrival of new devices

TV is the medium of entertainment and even present digital communication

PC became smaller devices that easily fits in ones lap

Through internet one can get information and connect with people

iPod became very popular for listening to music and even watch videos

iPhone is so popular due to its simple mobile experience and user interface

Facebook is world's most popular social channel having over 1.86 billion monthly active users

Twitter is world's 3rd most popular site due to its short and hash tagged messages

Angry birds is so popular due to its addictive gameplay, comical style and lower price.

Pokémon Go is so popular as it immerses players into its universe unlike any video game

Airplane (68 Years)

Telephone (50 Years)

Radio (38 Years)

Television (22 Years)

PC (14 Years)

Internet (7 Years)

iPod (3 Years)

iPhone (2.75 Years)

Facebook (2 Years)

Twitter (9 Months)

Angry Birds (35 days)
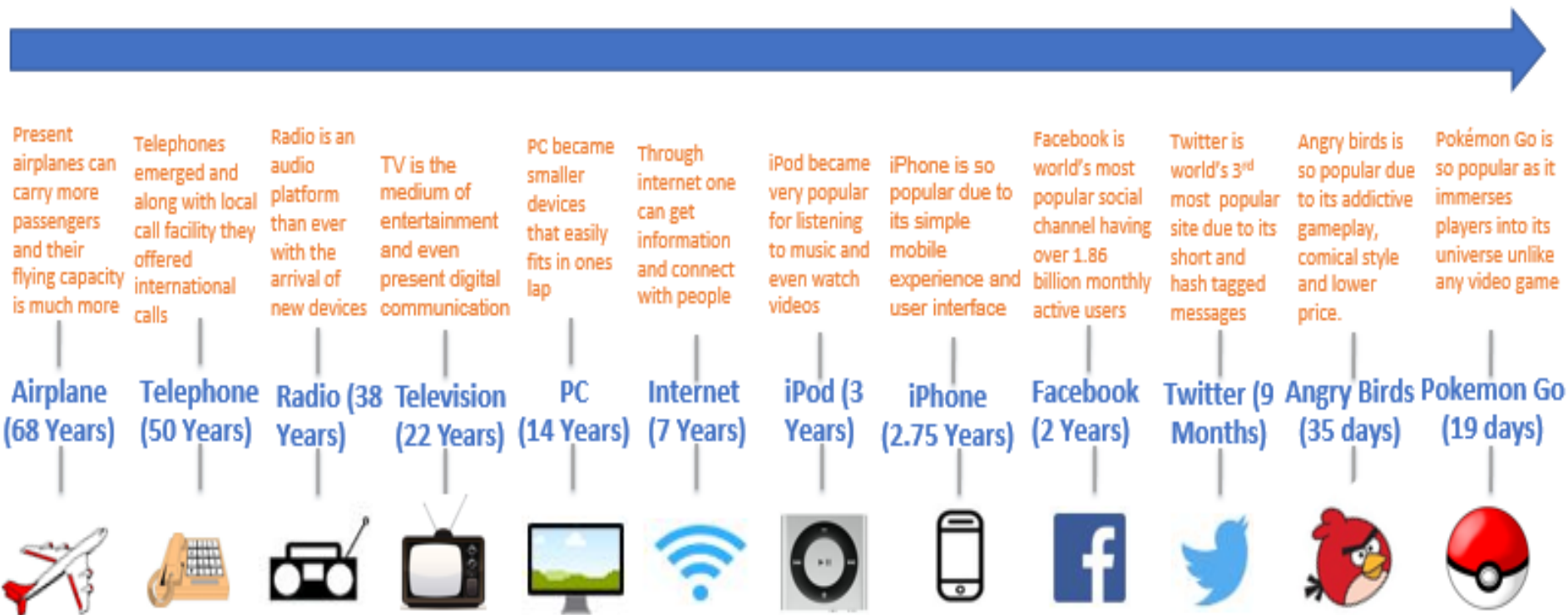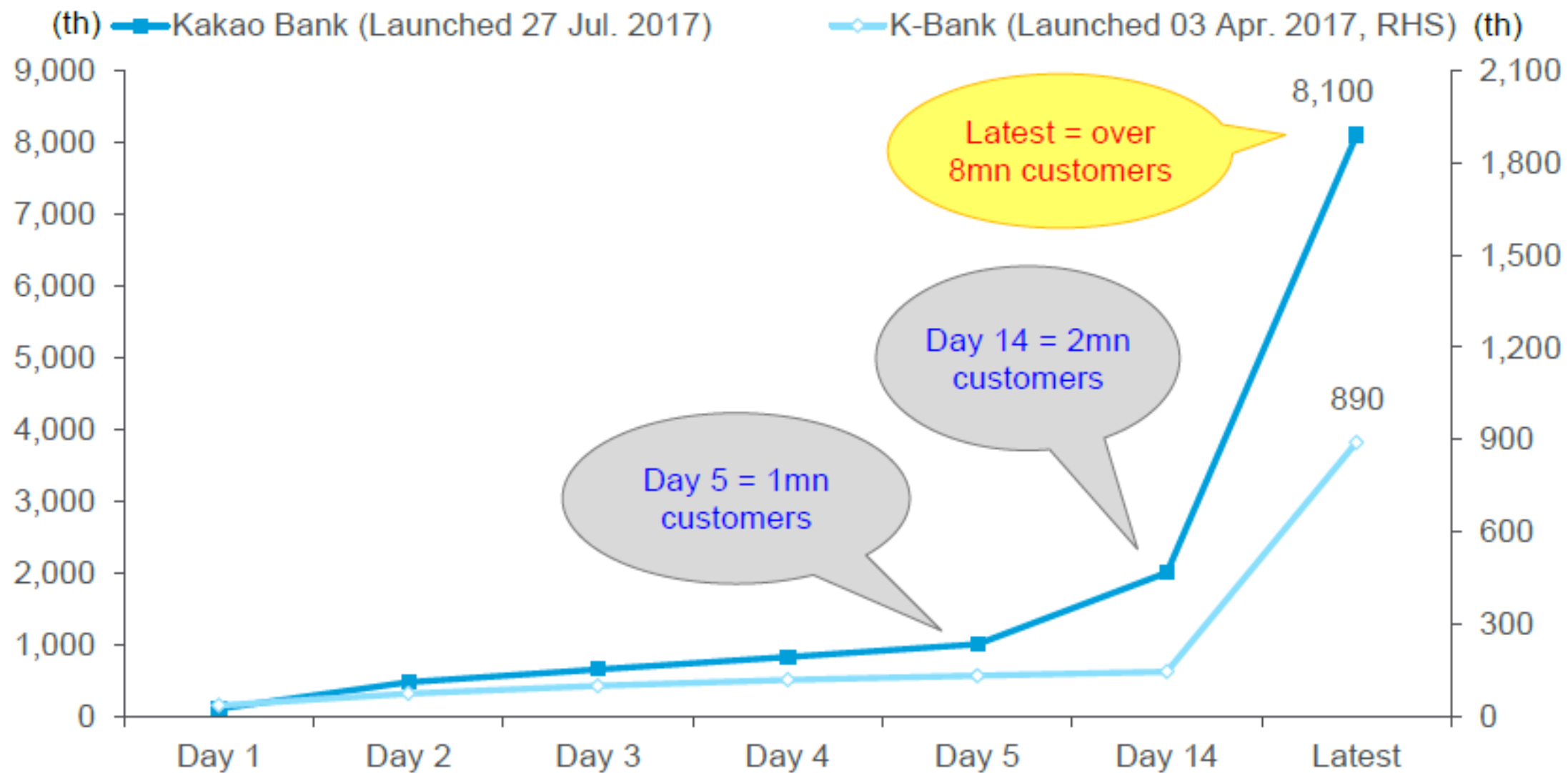
Pokemon Go (19 days)

Figure 107. Korea Internet Banks Aggregate Number of New User Accounts (in millions)

Source: Press Reports (Business News Daily Korea, Yonhap), Citi Research

Geopolitical Dimensions

- Digital markets tend to be
  1. global in nature,
  2. prone to tipping, and – when the tipping occurs –
  3. highly profitable

- Very dangerous combination in an international setting:

1. Desire to shift profits to domestic firms

2. Data control

3. Threat of exclusion

4. Possible manipulation

=> Extra reason why they should be regulated

The New Geopolitical Game

How <u>Not</u> to Regulate Them

- To regulate the size of digital platforms by law
- There are strong efficiency reason for aggregating on the same platform
- Any regulation trying to prevent that will face a very uphill battle

How to Regulate Them:
1 -Interoperability

- We take network externalities as a technological constraint.
- Yet, network externalities are a technological feature at the industry level, not at the firm level.
- In the early phone industry, there were enormous network externalities because one could only call people on the same phone network.
- The problem was fixed when the U.S. government mandated interoperability among the various phone-service providers
- The same is true for social media

- This interoperability can easily be achieved by mandating an open Application Program Interface (API), or even better a common API .

- This is what the Second Payment Services Directive has mandated for banking services in the European Union and the UK

- The problem is not limited to social media. Think about ridesharing services.

- The restrictions Uber and Lyft are imposing on their users are only designed to gain market share and eventually drive out of existence the competitor.

- With an open API, this segmentation would become impossible, because other software companies would come in to arbitrage away the friction.

How to Regulate Them:
2 –Data Ownership

- Data are a non rivalrous good and are best in the public domain.

- As for inventions, there might be incentive reasons to restrict temporarily access to data to the person/company who paid the cost to accumulate them.

- This trade-off, however, depends crucially on the size of the benefits obtained by putting them in the public domain and the cost born to accumulating them.

- For data, unlike for inventions, there is also a privacy issue.

- Releasing data in the public domain can lead to massive privacy violations.

- Yet, it is possible to de-anonymize data and make them more broadly available

- There are three main approaches to data:
    1. European: privacy above all
    2. American: who gets them first, own them
    3. Chinese: the state has the first cut

- We need to develop a fourth approach
    - Data as a Common

- At least after a short period of time

- This will reduce barriers to entry

Alternative Models:
1. The Dream of Web3

- Hansmann (1997) claims that cooperatives are a way consumers can protect themselves against the abuses of a monopolist.

- After all, in social media the users create all the content. Why shouldn't they appropriate some of the value they create?

- The idea behind the so-called Web 3.0 is very much in this direction.

- Crypto tokens as a way to reward people for their contribution on the platform

- The problem is whether the system can be completely decentralized.

- I doubt

2. Opensource Software

- Open-source software projects are built and maintained by a network of volunteer programmers (Linux and its derivative Android)
- Open-source evangelist Eric S. Raymond distinguishes between
  - The <u>cathedral model</u> of software development (highly centralized)
  - The <u>bazaar model ,</u> decentralized where users are co-developers
- Advantages
  1. Lower cost
  2. Better quality
  3. Higher security
  4. No vendor 'lock in'
- Not fully decentralized: Open Source Software Institute

3. The Indian Stack System

- Public/private partnership
- National Id System (Adhaar)
- Universal Payment Interface (UPI)
- Stack system that enables interoperability
- Promotion of national champions (PayTM)

4. The Academic Network

- Academic knowledge is a network
- Johnathan Rauch (2021) calls it the "reality based community"
- This network is characterized by
  - Some trusted nodes
  - A process to resolve disagreement
  - No concentration of power in any node
- Joel Mokyr *2018) claim that it was precisely the fragmentation of political power in Europe that made credible that no political power took over the process
- This might be true today in the international arena

Can an International Organization Regulate Big Tech?

- At the international level, there is no democracy.

- Yet, in a monopoly-prone world there will be one or two nations in favor of protecting their monopolies and all the others try to prevent it.

- Thus, it is a natural balance you do not expect at the national level.

- In addition, it is difficult for the digital platform to bribe foreign governments into supporting them.
    - Explicit bribes are illegal and easy to detect.
    - "Electoral bribes" must to be custom-tailored for every country, making it difficult to administer and organize without being explicitly perceived to have done a corrupt deal.
    - In democratic countries, the forces in power know they will be a minority in the future and fear an excessive concentration of power that might be used against them.
    - Last but not least, no government that has a real chance to capture for itself the power of social media would be like to relinquish that chance. But the vast majority of countries are not in the situation.

- The vast majority of countries fear the concentrated power in somebody else hands more than they are attracted to the probability of grabbing that power.

- Thus, the prevailing of decentralized solutions has more chances to emerge if the vast majority of a committee fears the centralization of power.

Conclusions

- Regulating BigTech is an international problem.
- Only at the international level, there are the right incentives to introduce regulation.
- Only at the international level, effective regulation can be designed.
- Only at the international level, the potential conflict between BigTech superpowers can be deescalated.
- International regulation of technology is not just a desirable goal, it is a necessity to keep our world at peace.
- The international banking regulatory experience could be used as a model to introduce such regulation.