



**Asia-Pacific  
Economic Cooperation**

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Session 6.2

## **Tech Platforms and Market Competition**

Submitted by: Michigan State University



**Free Trade Area of Asia-Pacific Capacity  
Building Workshop on E-Commerce  
Elements in Free Trade Agreements and  
Regional Trade Agreements  
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# Tech Platforms and Market Competition

By

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APEC CBNI Workshop

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# How to Promote Competition in Digital Platform Markets?

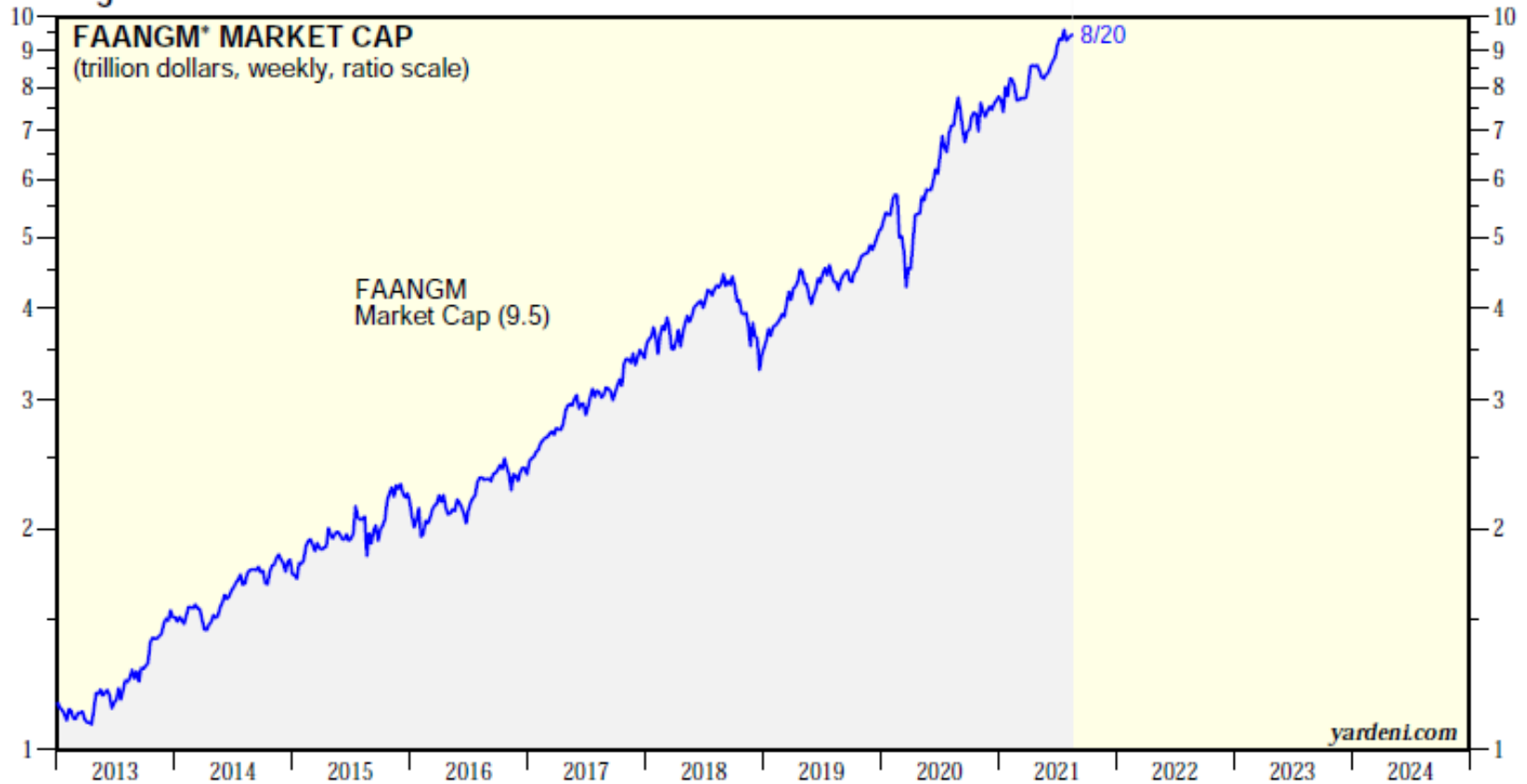
- The growing market dominance of Big Tech (digital platforms)
  - GAFAM
  - FAANG
- Calls for more active competition and regulatory policies in several jurisdictions
- Need for international cooperation for successful implementation

# Market Dominance with Entrenched Positions

- A small number of critical digital platform markets have become highly concentrated with significant market powers.
- “Gatekeepers” to control access to essential services.
- Expand to adjacent markets with “walled gardens.”

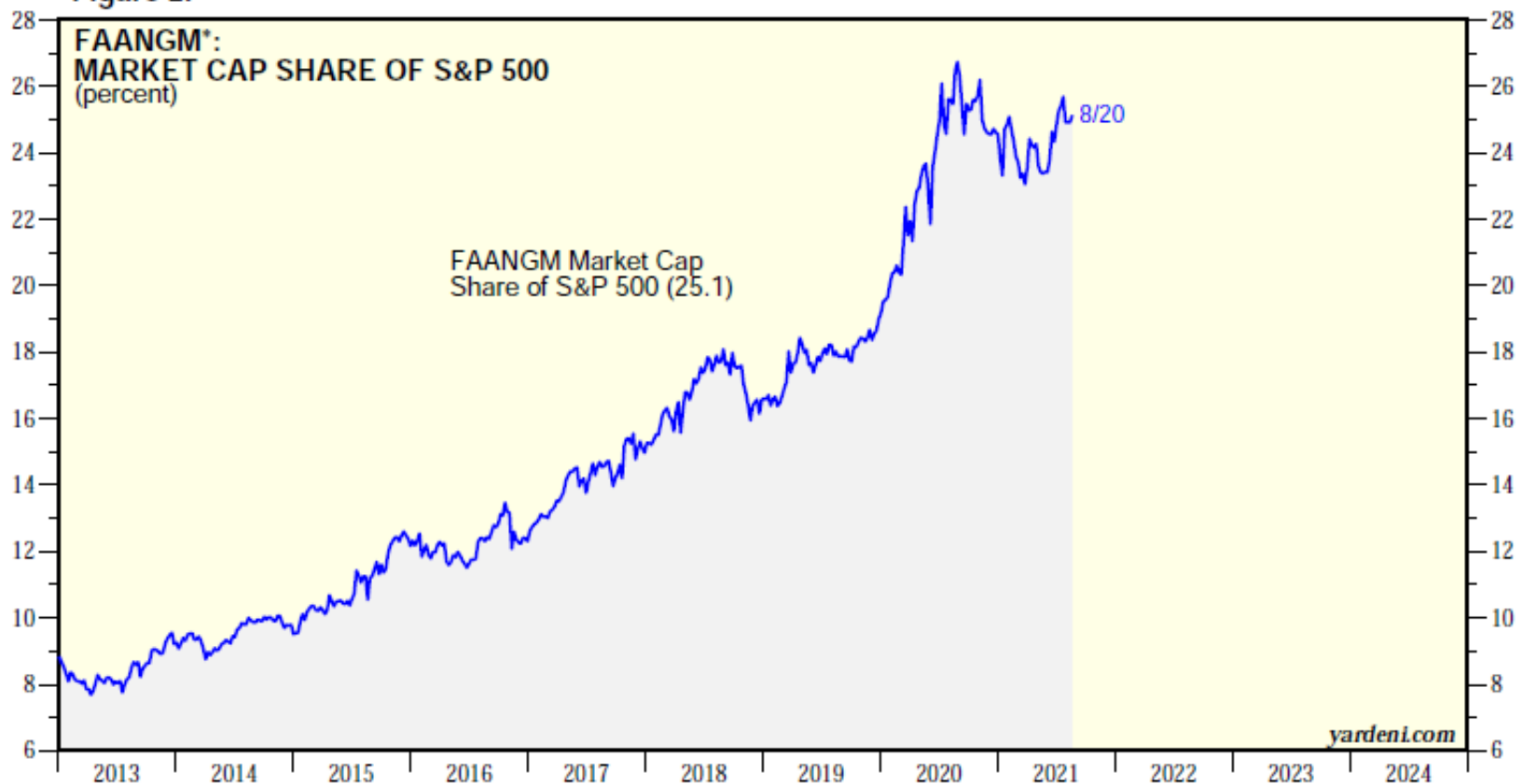
# Evidence of Market Dominance

Figure 1.



\* FAANGM stocks include Facebook, Amazon, Apple, Netflix, Google (Alphabet), and Microsoft. Both classes of Alphabet are included.  
Source: Standard & Poor's and I/B/E/S data by Refinitiv.

# Market Cap Share of S&P 500



\* FAANGM stocks include Facebook, Amazon, Apple, Netflix, Google (Alphabet), and Microsoft. Both classes of Alphabet are included.  
Source: Standard & Poor's and I/B/E/S data by Refinitiv.

# Market Dominance of Big Techs

- **Google**: 86.6% of the global search market (vs. Bing's market share of 6.7% as of February 2021, source: [searchenginejournal.com](http://searchenginejournal.com)).
- **Facebook**: 1.4 billion users with over 900 million of those users visiting the site every day (source: [web.com](http://web.com)).
- **Amazon**: Average monthly traffic of 1.87 billion users (source: [artikledesk.net](http://artikledesk.net))
- **Apple and Google**: Market dominance in the mobile phone OS and app markets.

# Fundamental Reasons

- Very large **economics of scale** (Large Fixed cost + Low Marginal cost)
- **Network Effects with Tipping**
  - Direct Network Effects
  - Indirect (Cross-Group) Network Effects in Two-Sided Markets
    - **Data-Driven**
- Coordination Issues in Switching



# Why Does This Matter?

- **Procompetitive:** Big tech firms brought innovative and valuable services (in many cases for “free”).
  - Facebook Case
- However,
  - Less transparent about the price they pay compared to price. Hidden fees problem exacerbated.
  - “If you're not paying for the product, then you are the product.”
  - Advertiser price  $\uparrow$   $\rightarrow$  Pass on to consumers. People may not realize how much they pay indirectly.
  - Privacy Concerns

# Entrenched Monopoly

- John Hicks:  
“The best of all monopoly profits is a quiet life.”
- High Entry Barriers:
  - Fundamental Reasons
  - Strategic Exclusionary Conducts

# Strategic Anti-competitive Conducts

- Gatekeeper to Control Access(App Stores)
- Self-Preferencing (Search Engine and Marketplace)
- Data Acquisition
- Privacy
- Tying
- Algorithm Pricing
- Mergers and (Reverse) Killer Acquisitions
  - Conglomerate mergers (shifting boundaries and merger of data)

# Ex: Acquisitions by Alphabet

August 6, 2014	Director	Mobile video	 USA	—	YouTube, Android	[192]
August 17, 2014	Jetpac	Artificial Intelligence, Image recognition	 USA	—	Picasa	[193]
August 23, 2014	Gecko Design	Mechanical design	 USA	—	X	[194]
August 26, 2014	Zync Render	Cloud-based visual effects software	 USA	—	Google Cloud Platform	[195]
September 10, 2014	Lift Labs	Liftware	 USA	—	Verily	[196]
September 11, 2014	Polar	Social polling	 USA	—	Google+	[197]
October 21, 2014	Firebase	Application development platform	 USA	—	Google Cloud Platform	[198]
October 23, 2014	Dark Blue Labs & Vision Factory	Artificial Intelligence	 UK	Etens of millions	Google DeepMind	[199]
October 24, 2014	Revolv	Home automation	 USA	—	Nest Labs	[200]
November 19, 2014	RelativeWave	Mobile software prototyping	 USA	—	Android	[201]
December 17, 2014	Vidmaker	Video editing	 USA	—	YouTube	[202]
February 4, 2015	Launchpad Toys	Child-friendly apps	 USA	—	YouTube for Kids	[203][204]
February 8, 2015	Odyssey	Multimedia sharing and storage	 USA	—	Google+	[205]
February 23, 2015	Softcard	Mobile payments	 USA	—	Android Pay	[206][207]
February 24, 2015	Red Hot Labs	App advertising and discovery	 USA	—	Google Play	[208]
April 16, 2015	Thrive Audio	Burround sound technology	 IRL	—	Google Cardboard	[209]
April 16, 2015	Skillman & Hockett	Virtual reality software	 USA	—	Tilt Brush	[210]
May 4, 2015	Timeful	Mobile software	 USA	—	Google Inbox, Google Calendar	[211]
May 28, 2015	Pulse.io	Mobile app optimizer	 USA	—	Android	[212]
July 21, 2015	Fixate	Mobile software prototyping	 USA	—	Android	[213]
September 21, 2015	Oyster	E-book subscriptions	 USA	—	Google Play Books	[214]
September 30, 2015	Jibe Mobile	Rich Communication Services	 USA	—	Android	[215]
June 18, 2015	Agave	Mobile application streaming	 USA	—	Android, Google Play	[216]
October 17, 2015	DigitalSfera	360-degree photography	 POR	—	Street View	[217]
November 11, 2015	Fly Labs	Video editing	 USA	—	Google Photos	[218]
November 11, 2015	beoop	Cloud software	 USA	\$380,000,000	Google Cloud Platform	[219]
February 12, 2016	BandPage	Platform for musicians	 USA	—	YouTube	[220]
February 18, 2016	Pie	Enterprise communications	 SGP	—	Spaces (app)	[221]
May 2, 2016	Synergyside	Interactive tutorials	 CAN	—	Google Docs	[222]
June 22, 2016	Webpass	Internet service provider	 USA	—	Google Fiber	[223]
July 6, 2016	Moodstocks	Image recognition	 FRA	—	Google Photos	[224]
July 8, 2016	Anvato	Cloud-based video services	 USA	—	Google Cloud Platform	[225]
July 12, 2016	KOI	Link management	 USA	—	Spaces (app)	[226]
July 27, 2016	LaunchKit	Mobile tool maker	 USA	—	Firebase	[227]
August 8, 2016	Orbiters	Cloud software	 USA	\$100,000,000	Google Cloud Platform	[228]
September 8, 2016	Aolgee	API management and predictive analytics	 USA	\$625,000,000	Google Cloud Platform	[229]
September 15, 2016	Urban Engines	Location-based analytics	 USA	—	Google Maps	[230][231]
September 15, 2016	APLAI	Natural language processing	 USA	—	Google Assistant	[232]
October 11, 2016	FameBit	Branded content	—	—	YouTube	[233]
October 24, 2016	Eyefluence	Eye tracking, virtual reality	—	—	Google VR	[234][235]
November 5, 2016	LeapCroid	Android Emulator	 USA	—	Android	[236]
November 21, 2016	Qwiklabs	Cloud based hands-on training platform	—	—	Google Cloud Platform	[237]
December 13, 2016	Cronologics	Smartwatches	 USA	—	Android Wear	[238]
January 5, 2017	Limes Audio	Voice communication	 SWE	—	Google Duo, Google Hangouts	[239]
January 19, 2017	Fabric	Mobile app platform	 USA	—	Firebase	[240]
March 8, 2017	Kaggle	Data science	 USA	—	Google Cloud Platform	[241]
March 9, 2017	AppBridge	Productivity suite	 USA	—	Google Docs	[242]
May 10, 2017	Owlchemy Labs	Virtual reality studio	 USA	—	Google VR	[243]
July 12, 2017	Hail Labs	Artificial Intelligence	 IND	—	—	[244]
August 16, 2017	AI-Metter	Computer vision	 BLR	—	YouTube	[245][246][247]
September 21, 2017	HTC (personas)	Talent and Intellectual property licenses	 TWN	\$1,100,000,000	Google Pixel	[248][249][250]
September 26, 2017	Bitium	Single sign-on and identity management	 USA	—	Google Cloud Platform	[251]
October 9, 2017	Relay Media	AMP converter	 USA	—	Accelerated Mobile Pages	[252]
October 11, 2017	60do	Podcasts	 USA	—	Google Play Music, Google Podcasts	[253]
March 27, 2018	Tenor	GIF image search	 USA	—	Google Images	[254]
May 9, 2018	Velostrata	Cloud Migration, Google Cloud Platform	 USA	—	Google Cloud Platform	[255]
May 14, 2018	Cask	Big Data, Hadoop	 USA	—	Google Cloud Platform	[256]

# Notable Acquisitions

- Google's Acquisitions
  - YouTube
  - DoubleClick
  - Waze
  - Fitbit
  - Android
- Facebook's Acquisitions
  - WhatsApp
  - Instagram

# Inadequacy of the Current Regime

- Acknowledgement of the apparent inadequacy of existing antitrust laws and enforcement tools.
  - Digital markets are dynamic and fast-moving
  - Antitrust laws are sufficiently flexible and adaptable, but enforcement takes time (often years for the final resolution)
  - Given the pace of innovation and shifting market environments, the outcomes of antitrust actions may have limited effects by the time of their resolutions.



**Ex Ante Regulation?**

# Proposals

- EU
  - Digital Markets Act
- UK
  - [Digital Markets Taskforce: A new pro-competition regime for digital markets:](#)
- US
  - Five Bills
  - Data portability and Interoperability
- Australia
- Republic of Korea: [an amendment to South Korea's Telecommunications Business Act](#)
- China
- Japan
- ....

# Commonality

- All proposals have the same broad aims:
  - Address a perceived gap in antitrust enforcement powers
  - Limit big digital platforms' exercise of market power.
- However, very different approaches in implementations



# Different Approaches in Implementations

- US, EU and UK with somewhat different approaches
  - Over-inclusion vs. Under-inclusion
  - Simplicity vs. Targeted
  - Clarity vs. Flexibility
- Gaming the system and Unintended Consequences

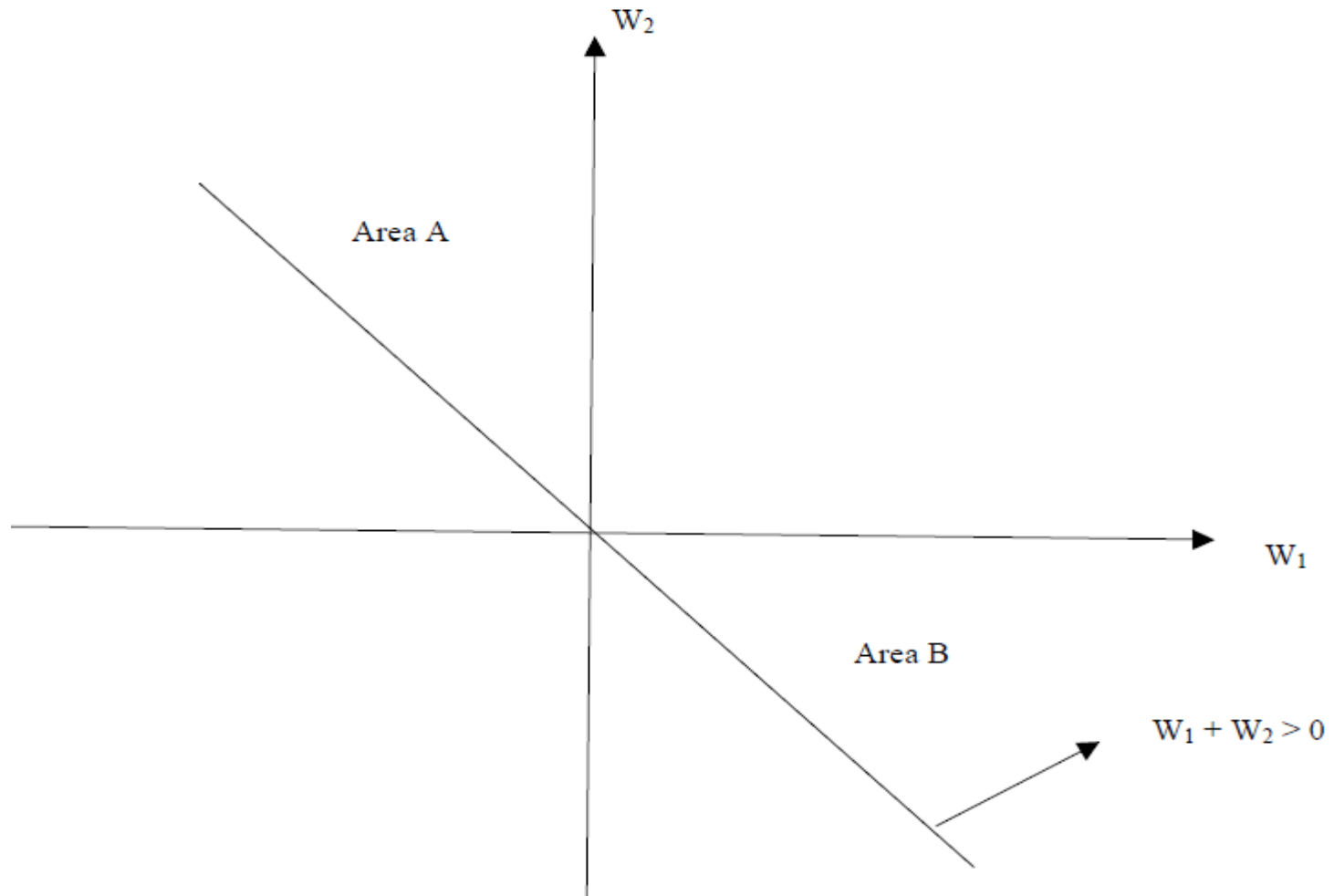
# Need for International Cooperation

- The proliferation of measures across different economies with **potentially inconsistent** or **incoherent** regulatory approaches
- Need for **international coordination and cooperation**

# 1. Enforcement Externalities

- The effects of an antitrust enforcement activity in one economy is not necessarily confined to the economy of enforcement.
- “**Strictest Regime Wins**” problem (Geradin, 2009) and the risk of overregulation

# Areas of Overregulation



# Under-regulation with Free-Rider Problem

- With enforcement costs, the possibility of under-regulation also exists.
- **Two Types of Inefficiencies:**
  - No economy is willing to enforce
  - Each economy may have incentives to free ride on the other economy's enforcement efforts

## 2. Burden of compliance costs with multiple agencies

- Independent and uncoordinated antitrust enforcement can be a considerable burden for multinational firms operating in many different economies.
- A nightmare scenario with conflicting rules that cannot be satisfied simultaneously.
- Language can be another issue – “Lost in translation”

# 3. Pursuit of Different Objectives across Jurisdictions

- There may be economies that pursue additional or different objectives with antitrust policies, which would certainly create inconsistencies in the policy implementation.
  - Antitrust Monopoly Law (AML) in China states that one of its objectives is to “**promote the socialist market economy.**”
  - Its merger review also considers among other factors the “**effect on the development of the national economy and public interest.**”
- “**Regulatory Capture**”
  - Antitrust decisions can be used as a **disguised protectionist policy.**
  - Politically-minded and overzealous enforcement officials →  
**A race to be the toughest** in an attempt to be a relevant player

# 4. Forum Shopping

- The lack of uniform antitrust enforcement across jurisdictions raises the possibility of “forum shopping”
- Competitors of the merging parties or an allegedly dominant firm have incentives to bring the case to the antitrust authority with the most sympathetic ear → the strictest antitrust rule is enforced in the global economy



# What to Do for Policy Harmonization?

- Broad **consensus on** the high desirability of a **uniform substantive and procedural antitrust regime**
- Difficult Q is a more practical one: How to achieve harmonization among economies with sovereign rights?

# Proposals (**not workable**)

- Cabral (2003): The **externality problem** can be mitigated if antitrust enforcement policy is considered as a **repeated game**.
- Creation of a **supranational, global antitrust agency**
  - Too much divergence in economic conditions and policy goals
  - Differences in procedural rules and enforcement mechanisms (even between the US and the EU)

# What else?

- Piecemeal and gradual convergence path
- **G7 Digital and Technology Ministers' Meeting** (April 28, 2021)
- International Competition Network (ICN)
  - Founded by the US DoJ, FTC and 13 other jurisdictions in 2001, but has grown to **126 member agencies from 111 jurisdictions** (as of April 2013)
  - improve **global cooperation and enhance convergence in competition policy** through dialogue between competition authorities worldwide.
  - to develop standards and best practices which can be applied consistently across a variety of jurisdictions.

# ICN Activities

- Working groups in the areas of advocacy, agency effectiveness, cartel, merger, and unilateral conduct.
  - Merger enforcement: “*Principles and Recommended Practices*”
  - Cartel: *Anti-Cartel Manual* and *Enforcement Templates*
  - Unilateral conduct: developing guidelines
- The multilateral approach can be complemented by **bilateral agreements** between economies that share similar competition goals and procedures.

# Economics and Effects-Based Enforcement

- The best way to achieve any commonality and harmonization seems to be movements towards effects-based enforcement guided by economic reasoning rather than a formalistic approach.
- It should be based on widely accepted economic theory disciplined by empirical support.

# Concluding Remarks

- Serious Concerns with **Dominant Platforms** Worldwide
  - High Market Concentration with Market Power
  - Recognition of the Inadequacy of the Current Policy Regime
  - Movement towards Ex Ante Regulation
- **Potential conflicts** among competition/regulatory authorities if their rules and procedures are not harmonized.
- **Call for harmonization and international coordination** in antitrust and regulatory enforcements.
- One convergence path that is most agreed seems to be **effects-based antitrust enforcement guided by economic principles**.