A FRAMEWORK TO ANALYZE THE MARKET POWER OF MOBILE ECOSYSTEMS

Adapted from K. Stylianou, Ecosystem Power, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3893607

Type of economic power*	Ecosystem characteristic gives rise to	Investigative focus of competition authorities Source of economic power can be measured thru	Measurement of economic power
Ability to navigate market complexity	Multitude of products, services, and actors in diagonal, non-hierarchical relationships across multiple markets	Multi-level entry required to compete with ecosystem Ecosystem sponsor can spread risk and capital across markets Ecosystem sponsor can re-combine and re-use assets across markets Ecosystem sponsor can shift the market where economic power is exercised	Aggregate residual demand on ecosystem basis 10-K forms Unique super-modular complementarities among ecosystem sponsor offerings
Ability to shape market structure and orchestrate market relationships	Initial focus of competition: onboarding and differentiation Mature focus of competition: combinatorial experience	Ecosystem sponsor can shape market relationships to maximize value creation Ecosystem sponsor can choose valuable intermediation loci in ecosystem that allow maximization of value capture	Process of technical standard formation/adoption, and process of contractual relationship formation Squeezed margins Betweenness centrality
	Co-opetition, interdependence, and co- evolution	Actor choices result in strong inclusion/ exclusion effects and actor choices reflect that	Degree of user adoption of ecosystem sponsor products/ services, and churn rates

* Market power is traditionally defined as the ability to exclude competitors or raise prices or act without regard to competitors/consumers. The types of economic power defined here can either be considered as new or as iterations of the power to act without regard to competitors/consumers.

EXAMPLES

Source of economic power	Example	
Multi-level entry required to compete with ecosystem	Google is present in over 20 separate markets. ¹ While it has many competitors in each of those markets, it only has 4 universal competitors (Amazon, Apple, Facebook, Microsoft) and 1 mobile ecosystem competitor (Apple).	
Ecosystem sponsor can spread risk and capital across markets	Amazon subsidizing its e-commerce business through its AWS business. Amazon easily absorbing the risk of the failed Fire Phone.	
Ecosystem sponsor can re-combine and re-use assets across markets	Google adapting core AI capabilities to use in image recognition (Google Images), speech recognition (Google Assistant), recommendation algorithms (Youtube), self-driving car (Waymo) etc.	
Ecosystem sponsor can shift the market where economic power is exercised	Bottleneck power moving from app stores to voice control interfaces (Siri, Google Assistant etc), which are used as user entry points into the web of an ecosystem sponsor's various devices and/or services.	
Ecosystem sponsor can shape market relationships to maximize value creation	Imposition of the AMP standard by Google.	
Ecosystem sponsor can choose valuable intermediation loci in ecosystem that allow maximization of value capture	Apple's 30% in-app transaction fee	
Actor choices result in strong inclusion/ exclusion effects and actor choices reflect that	Users who don't own multiple Apple devices lose out on the tight integration features among Apple's devices. Not having an Apple account further reduces usability of Apple's products.	

¹ Konstantinos Stylianou, Exclusion in Digital Markets, 24 Mich. Tech. L. Rev. 181 (2018).