

Free Market and Buyers Beware? Where
are we today and what is the optimal level of
government intervention to protect competition
and consumers in Singapore?

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(Abstract: 300 words)

(Essay, citations included: 2499 words)

Abstract

Government intervention differs in its mechanism, agents, and objectives. An intellectual property regime seeks to incentivise research by rewarding firms with sole ownership of an innovation. Labour market policies aim at increasing mobility of worker supply, especially in tandem with our industrial policies. Sector-specific regulatory policies, such as taxing road usage through the Electronic Road Pricing system, often deals in remedies to *subsidise for* competition, or *set the boundaries* of competition. Traditional economic theory would suggest that competition policy is a set of laws that ensure competition in the marketplace is not restricted in a way that reduces economic welfare, and that consumer protection policies enhance buyers' trust in and thus the legitimacy of free markets.

However, the delineation of policy functions is an ephemeral matter, and the aims and scope of competition and consumer protection policies further differ from country to country. US antitrust laws, for example, primarily serve to protect consumer welfare, and are often tempered by political changes, while competition policy in the EU holds economic integration as its dominant objective.

Hence, a recommendation addressing the form and extent of consumer and competition policy in Singapore is only proper when it accounts for our overarching economic objectives, and studies the entire system of governmental policies it is embedded within. I begin by examining both the historical and the contemporary context of government intervention in Singapore. Furthering this line of inquiry, I argue that the rise of unprecedented business models and new market structures require a consistent review of old regulatory frameworks, and careful study into the contestability of new markets. I then argue that because of more inconspicuous, yet more harmful,

demand-side market failures, a “caveat emptor” approach is insufficient in policing digital consumption. Lastly, specific abuses relating to the use of data and algorithms are addressed.

Government intervention In Singapore

Various economic historians have oft-attributed Singapore's rapid economic development to direct state intervention. Since the inception of the Neptune Orient Lines in 1968, the state continues to play a role as owner and investor in strategic sectors that "develop capabilities", such as banking, telecommunications, and air travel. The model of Singapore's development, interpreted as antithetical to the Washington Consensus (Peng, 2018), is widely debated among economic liberalists. Are we for, or against, the free market? Neither. We are *with* the market.

State intervention was directed towards building synergies across competing firms, and capturing unaccounted positive externalities in developing capabilities in new industries. Pioneer tax incentives and infrastructural development further directed the growth of Industrial clusters. These agglomerations of related firms, industries, and institutions derive synergies from one another (Menon, 2010) and reaped external economies of scale through shared services and vertical integration. Well-designed cluster environments such as Jurong Island attracted FDI inflows, allowing Singapore to transition to sectors deemed favourable by our government. Foreign MNCs also enabled the transfer of information and best business practices to local enterprises, accelerating the pace of innovation. In fostering a collaborative industrial environment, we resolved the many coordination problems that came with competitive markets.

Today, though the form and extent of government participation in markets have changed, its nature has not. While there has been substantial deregulation of various service sectors such as finance, telecommunications, and utilities, "strategic" companies such as SP-Group, Singapore Technologies Corporation, and Changi Airport remain tightly monitored by regulatory bodies or enjoy managerial relationships

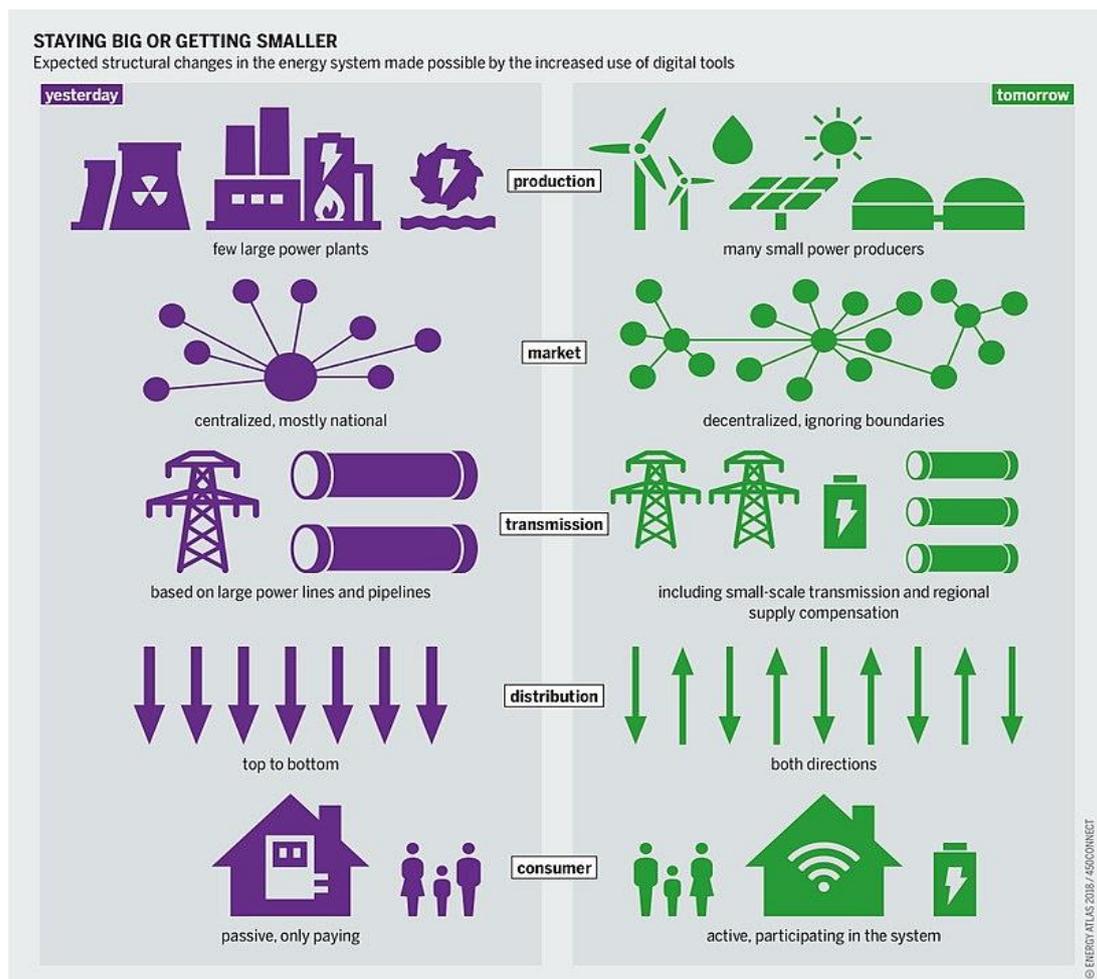
with civil service leaders. Our government also holds, through Temasek, stakes in multiple Government Linked Corporations, many of which are key players in our Industry Transformation Roadmaps. Direct provision of national assets is only partially displaced by Public-Private Partnerships, as in the construction of Singapore Sports Hub.

Our economic history reveals an absence of well-defined anti-trust frameworks and a central competition authority. Mature Western economies, by comparison, have had competition laws proceed, even precede, economic development. Other Asian Tiger economies, nearing 1990s, saw anti-competitive behaviour and undue market concentration as an impediment to sustained growth rates. Taiwan's Fair-Trade Act was enacted in 1992, while Korea, in seeking to regulate the dominance of *Chaebols*, enacted the Monopoly Regulations and Fair-Trade Act in 1981.

We are ranked 1st in economic freedom, and own the world's most competitive economy. This is, nevertheless, a lagging indicator; our government's old model of "doing business" must continually adapt to evolving business needs. Similar to our shift from Import Substitution Industrialisation policies to an Export Oriented Industrialisation approach in the 1960s, a robust competition and consumer protection framework will play an increasingly important role in sustaining efficiency and innovation, especially domestically-driven innovation, beyond the 2000s (Economic Review Committee, 2003). This essay will analyse the state of Singapore's competition and consumer protection policies, and how, given our model of economic development, these policies may be adapted to challenges of the 21st century economy.

Anticipating new business models

The digital economy brings new capabilities that facilitate novel business models in our economy. Competition policy is increasingly crucial to ensure a level playing field between new and old models in all economic sectors. Improvements in network connectivity and device portability, for example, have enabled users to join broadcasted reputational networks that allow users to congregate on sharing platforms in every market. Such multi-sided-market operators can disrupt even upstream sectors. “Smart grid” technology, for example, decentralizes energy production to smaller producers in differing geographical areas; in this case, utility sectors may no longer be conferred natural monopoly status it once enjoyed.



Source: Bartz/Stockmar

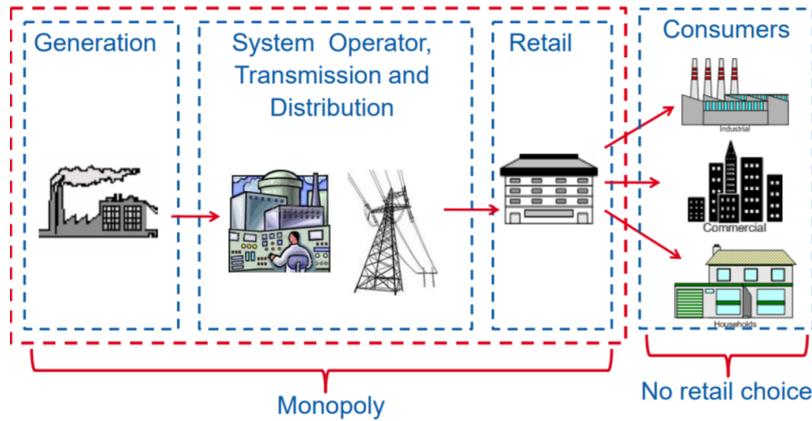
Pre-existing regulatory frameworks, especially those applying to markets excluded from the competition act, may be unknowingly distorting competition, whether in favour, or against, innovative business models. While Grab and Uber were launched in Singapore in 2013, they were not subject to Quality of Service and Taxi Availability standards imposed upon incumbent operators. The LTA has only recently proposed a new Point-to-Point regulatory framework that requires Car-pool service licensing, levelling service standards between taxis and private-hire cars all too late. The CCCS must thus, in spite of existing exclusivities, work closely with sector regulators to facilitate entry of, and anticipate, new business models.

Determining contestability of new markets

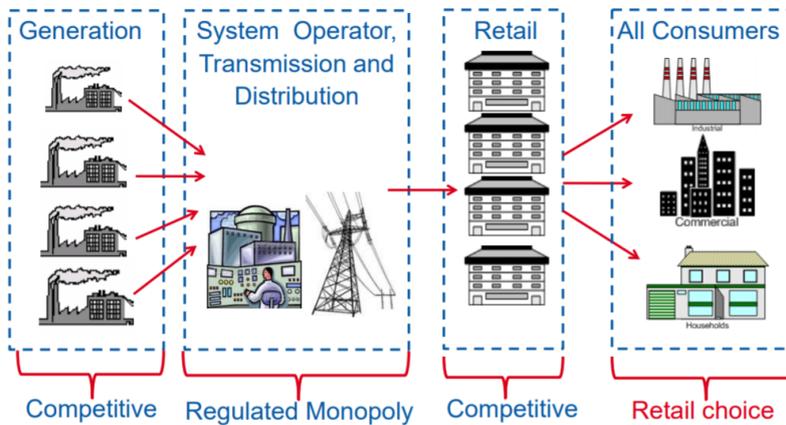
Digital firms often bundle multiple services and functions, when in practice the level of competition that can be sustained in such interconnected markets is a continuum (OECD, 2001). Furthermore, Wu (2010) has highlighted that the vertical integration of multiple services (data acquisition, web indexing, search algorithms, advertisements) within single dominant firms creates incentive for and ability to perform anti-competitive practices. This further increases barriers to entry as entrants must compete on a greater range of services offered by a single incumbent's platform/network. Google, for one, has faced multiple investigations since 2014 as to whether its general search algorithm unfairly favours its downstream services. More Internet users are also demanding for "search neutrality", expounding that an unbiased search engine is a public good.

Hence, a separation of contestable and non-contestable processes within the digital ecosystem may be proposed, similar to how the EMA regulates the natural monopoly for electricity transmission, while liberalising its retail and generation markets.

Vertically-Integrated Monopoly



Full Retail Competition



Source: Energy Market Company

Such structural separation, as widely applied to banking and payment markets, may be adapted to digital ones. Horizontal search processes render results over the entire web and may constitute a natural monopoly, while vertical search services (Youtube, Amazon) are selected over a proprietary database, and can form competitive markets. Since the operation of the horizontal search engine is straightforward, with little scope for innovation, it may be efficiently governed by regulators with non-economic incentives. (OECD, 2001).

Singapore, however, may look to collaborative regulatory policies, perhaps via public-private partnerships to design an unbiased search ranking algorithm, which

incentivises search engine firms to compete on other parameters like speed of data retrieval. Whatever the remedy, the identification of interrelated but separable markets in the digital value chain is crucial.

Countering explicit and implicit consumer exploitation

Stronger consumer protection policies are required to target imperfect information and exploitative behaviour in the digital economy. Singapore's CPFTA, though revised in 2016, lacks adequate deterrence effects (Loo & Ong, 2017). Neither do we mandate a "perfectly informed regime" like in the EU's New Deal for Consumers. Instead, our 'buyer beware' policy approach shifts the burden of making informed economic choices to the individual. Only a transgression of baseline product quality standards, such as those stipulated Enterprise Singapore's Consumer Goods Safety Requirements, or blatant fraud, such as false trade descriptions, are criminally sanctioned.

Yet, digital market-places increase the ability of sellers to design their platforms in subtle ways that exploit our cognitive biases, for example via opt-out pricing which nudges consumers to purchase a bundle of goods not explicitly chosen by them. (CCCS, 2019). Worse still, enforcement authorities will find it difficult to track and punish online firms, and blacklisted traders may simply change their names to nullify reputational costs, increasing the incentive to cheat.

	Cases reported in first half of 2018 (% of total e-commerce scams)	Cases reported in first half of 2019 (% of total e-commerce scams)
Carousell	751 (74%)	765 (53%)
Facebook	58 (6%)	270 (19%)
Instagram	8 (1%)	77 (5%)
Shopee	27 (3%)	75 (5%)
Lazada	14 (1%)	63 (4%)
Total	858 (85%)	1,250 (86%)

Source: Singapore Police Force

While stronger consumer awareness campaigns may sufficiently forewarn consumers of these activities, other digital practices that lead consumers to sub-optimal choices may reside in the sphere of “unknown unknowns”. The use of personalised pricing algorithms, and biased search-ranking algorithms, for example, cannot be known to consumers unless firms have an obligation to declare their existence. Specific to digital markets such as e-commerce, Singapore requires stronger ex-ante rules to ensure that consumers, minimally, are *aware* of such practices, and ex-post rules to achieve a similar deterrent effect that brick-and-mortar shops already face.

Addressing data-specific market failures

A more comprehensive regulatory framework is needed to manage the use of data and algorithms. Digital firms are increasingly adopting business models that rely on consumer data, not consumer purchases, as a key input. (Stucke, 2016). Singapore’s

Personal Data Protection Act, however, governs the use of data with respect to consumer rights. Proposed data portability standards, which stipulate that personal data be designed in “structured, commonly used, and machine-readable formats” (GDPR, 2016), applies only to personal data. This lowers barriers to entry as data may be easily transferred from one data controller to another competing one. Consumers hence are not locked into the any one firm; all may provide them with a similarly personalized experience using prior data.

This, however, does not warrant that firms share content and collaborate on analytics; which mean forgone positive externalities that arise from data collaboration. Access to a variability of data sources, for example, could increase predictive accuracy of algorithms, and creates economies of scope for a firm’s inputs (IDG, 2016). By extending portability requirements to non-personal data, collaboration between industry players can be enhanced, and spill-over effects to other markets created. The Uber Movement, for example, provides anonymised, aggregated travel times from *any* point to *any* point within a geographical region. Such data is provided in an interoperable .csv format easily utilised by food delivery firms.

This essay builds on the premise that Singapore’s industries are both *collaborative* and *competitive*. The challenge lies in ensuring firms work together in ways that do not impede competition, especially given that data controllers participate in multi-sided markets, span across multiple markets, and/or engage in non-monetary transactions for data (OECD, 2016). Analyses that over-rely on price mechanisms or market definitions, such as the SSNIP test, are increasingly less effective.

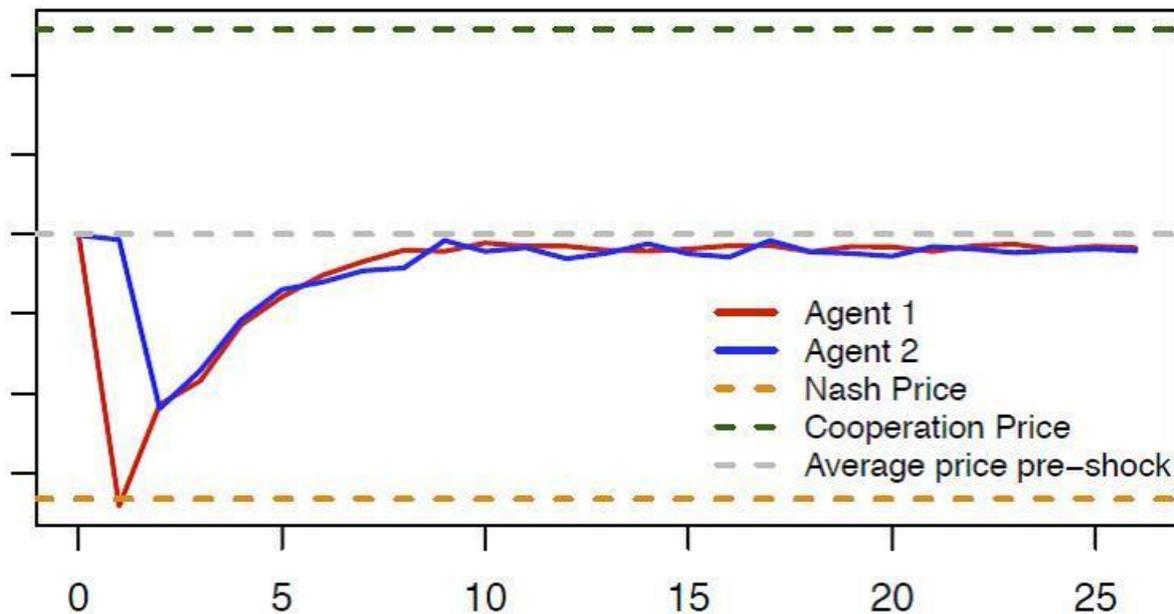
In response, data evaluation frameworks may be integrated into merger and practices review, to determine an action's impact on competition. Data can be characterised by its identifying power of persons or groups, its cost of replication or acquisition, and the non-substitutable functions it serves. The former ensures consumer privacy risks are identified and mitigated; the latter ensures firms withholding data identified as "essential facilities" may still be charged with discriminatory access or refusal to supply, like how the Autorité de la Concurrence ordered gas firm GDF Suez to release French gas consumption patterns.

Such an evaluation framework must also account for how that new data interacts with data belonging to the firm of concern (Binns & Bietti, 2020), which supplements the De Minimis principle by alerting authorities to actions with a greater propensity to data-related abuses. Facebook's acquisition of Whatsapp in 2014 was significant not by traditional standards of market dominance (Whatsapp had 10.3 million USD in revenue), but by the integration of immense personal data between two networks. Facebook bought over Whatsapp for 19 billion in 2013; now, competition authorities like the Bundeskartellamt are charging Facebook's merging of data from third party services as a gross abuse of market power.

Addressing algorithms

Algorithms relate to the way data is processed to provide economic value for firm, such as in making predictions or optimising business processes. Because algorithms tend to be complex, or sometimes operate as "black boxes", competition authorities will find it difficult to detect if they are used to collude on prices or as a surveillance tool in resale price maintenance (Bird & Bird, 2019). Algorithms encourage collusion in

transparent markets where firms interact repeatedly (OECD, 2017) -- even parallel yet independent use of algorithms by individual firms may converge in prices, increasing likelihood of collusion in less concentrated markets.



Source: Oxford Business Law Blog

The 2015 case of a single poster retailer coordinating with competitors on Amazon, then implementing dynamic pricing algorithms programmed to conform to certain prices, is testament to the ease of algorithmic collusion by small and dominant firms alike.

There are few case studies in this area, and the knowledge-gap between regulators and firms is wider. This essay hence proposes for regular consultations with digital associations such as SGTech be held, and for industrial self-regulation to be encouraged in the interim. The usage of algorithmic technology to combat anti-competitive behaviour should also be explored. The Korean FTC, for example developed its own bid-rigging indicator analysis system to predict the probability of bid

rigging in public tenders. Fakespot.com also uses Artificial Intelligence to detect fake customer reviews on Amazon.

A globally oriented policy framework

Finally, consumer and competition policies, albeit applied to domestic markets, should be developed in collaboration with our economic partners. The trans-national nature of digital markets means that policy responses, commitments, and injunctions in other countries provide material for analysis, so we may adapt them to our Singaporean context. Furthermore, a showing of our commitment to a robust competition policy framework legitimises our industries amidst an increasingly trade-hostile world, and demonstrates alignment to stricter competition provisions in Free Trade Agreements. In fact, Singapore's competition act was enacted out of legal obligations in the US-Singapore FTA in 2003 (Ong, 2006).

Furthermore, Singapore contributes 69% of all intra-ASEAN investment (ASEAN, 2018). Our "regionalization" strategy for domestic firms to invest outwardly and capture emerging market opportunities (Yeoh, 2004) would thus also be well supported by the harmonization of competition policies across the ASEAN region. By continuing to lead sustained initiatives within the ASEAN Experts Group on Competition, we may further reduce compliance costs and uncertainty for domestic businesses.

Conclusion

As shown, the policing of the digital economy is a complex matter. Technological developments are less predictable, new capabilities will disrupt every economic sector differently, and markets can no longer be regulated in isolation.

Our government, extrapolating from the past, will continue participating heavily in markets. In this the CCCS is uniquely positioned to advise statutory bodies on new competition issues, scrutinise for regulatory capture, and bring our plethora of regulatory policies into cohesion, such that policy overlaps or conflicts are avoided. Only then can competition and consumer protection policies successfully promote “productivity, innovation, and competitiveness” in our economy.

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