

## **Environmental Sustainability: The role of competition and consumer protection laws and policies**

### **Abstract**

Environmental sustainability today is a significant priority of the Singapore government with far-reaching policy implications, of which competition and consumer protection law is one. This essay distinguishes between existing pro-competition and consumer measures that complement certain sustainability goals, while also considering the potential conflicts between environmental sustainability and conventional economic efficiency considerations. We propose there is no need for a major overhaul to the existing regulatory framework, though elements can be modified to accommodate such considerations.

Where sustainability and economic efficiency complement each other in cases where competition and consumer protection law improves competition on sustainability grounds and protects consumers from “greenwashed products”. Where sustainability and economic efficiency conflict, we note that there could be higher costs resulting from adoption of more sustainable practices which are then passed on to consumers. There are also risks of higher environmental standards raising barriers to entry into an industry. To this end, it is recommended that CCCS integrate sustainability concerns into its net economic benefit framework in three ways: social carbon costing, revealed preferences, and stated preferences.

We conclude that CCCS should not deviate from its original mandate of enforcing competition and consumer law; however, it should adopt new methods to better quantify environmental effects of anti-competitive behaviour. Its approach should also complement the government drive towards sustainability more generally.

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# 1 Introduction

## 1.1 CCCS' Role in Countering Climate Change

Singapore is part of an accelerating global drive towards environmental sustainability. Most recently, the government has pledged net-zero emissions by 2050, as well as a carbon tax of S\$50-80 and S\$30 billion in green bond issuance by 2030 (MOF, 2022).

Since the 2004 Competition Act, the Competition and Consumer Commission of Singapore (CCCS) has been charged with ensuring economic efficiency through competitive markets. It also protects the interests of consumers to prevent exploitation by producers by enforcing the 2003 Consumer Protection Act.

Given that environmental sustainability necessitates a whole-of-government response, CCCS must evaluate:

1. How sustainability is relevant to its existing role of ensuring economic efficiency.
2. Whether broadening its role beyond economic efficiency is necessary for the unique challenge of sustainability.
3. Whether new methods are required to fulfil its role, broadened or otherwise.

## 1.2 Thesis

In this paper, we note that there are many situations where efficiency and sustainability goals are simultaneously served by existing competition and consumer protection law. In such cases, no significant change to CCCS' current approach is necessary.

Of greater interest are circumstances where these goals conflict. In these matters, we propose that CCCS should preserve its original role of ensuring economic efficiency. That said, one must recognise that environmental sustainability is a unique externality because it affects multiple markets. Rather than considering social surplus within one market, CCCS must account for multi-market, even macroeconomic, effects on efficiency when deciding if a breach of competition or consumer protection law is justified. We explicate three approaches:

1. Macroeconomic social costing;
2. Revealed preferences;
3. Stated preferences.

To avoid overstepping its statutory responsibilities, CCCS should consider these approaches in synergy with other government policies to tackle sustainability challenges, such as its social valuation of carbon.

## **2 Complementarities**

To the extent that goals of efficiency and sustainability are complementary, there is no need for an overhaul of current competition policy.

### **2.1 Complementarities with Promoting Competition**

Productive and dynamic efficiency promoted by competitive markets are prerequisites for sustainability, as they imply that the socially efficient amount of natural resources is used in production processes (OECD, 2020). Moreover, product sustainability is itself an area where firms can compete (Volpin, 2020). This could benefit consumers not only via an increase in consumer choice, but also a rise in consumer surplus if they perceive sustainable goods as higher quality.

Thus, the existing anti-competition law could potentially enhance sustainability. Drawing on an overseas example, car manufacturers in Europe were fined €875 million for possessing technology to reduce emissions beyond the EU legal requirement, but colluding to avoid competing (European Commission, 2021). This ruling not only enhances consumer choice in car models, but also positively impacts environmental sustainability. Singapore's existing legislation could achieve similar objectives.

### **2.2 Complementarities with Protecting Consumers**

Moreover, existing consumer protection law can also protect consumers from producers who make misleading sustainability claims on their products, deeming this an unfair trade act. Last year, the International Consumer Protection Enforcement Network's

annual sweep of nearly 500 websites found 40% made deceptive environmental claims (CMA, 2021), including: unclear language like 'eco' or 'sustainable' without explication; unaccredited eco labels; and outright omission of information like emissions levels to appear more eco-friendly. Within Singapore, 30% of its citizens find sustainability claims on products confusing (World Wide Fund for Nature [WWF] Singapore, 2021).

However, CCCS is endowed only with investigative and enforcement powers, and is not given the mandate to standardise green terminologies on products. The onus of enacting new policies to greenwashing lies with other government organisations. For instance, MAS has convened a Green Finance Industry Taskforce and aims to announce new disclosure standards for retail ESG funds by early 2022. Other bodies like the National Environment Agency (NEA) could establish a standardised set of definitions for terms regarding environmental claims like "carbon neutral". CCCS can then use this terminology defined by NEA in its enforcement activities to better protect consumers.

Such an approach makes enforcement by CCCS transparent and consistent, making rulings on such cases faster to resolve. This would more effectively provide consumers with more accurate information on environmental matters, and correct any possible overconsumption when they previously had imperfect information.

### **3 Conflicts**

However, sustainability goals are not always best-served by promoting competition.

#### **3.1 Higher Costs**

Investing in more sustainable products and processes would incur higher costs for firms. There may thus be a trade-off between sustainability and lower prices to consumers, reducing consumer welfare. Firms may even attempt to pass on higher prices to consumers by greenwashing their products. Given 35% of surveyed Singaporeans are willing to pay a 10% markup for sustainable alternatives (WWF Singapore, 2021), this gives rise to a real concern of potentially misleading advertising.

This trade-off becomes more acute when the firms undertaking such measures are small. Large firms can undertake sustainability initiatives unilaterally – Koga (2020) notes that companies like Blackrock, with a US\$7 trillion in assets under management, are better-endowed to transition towards sustainability. Smaller firms may face a “first-mover disadvantage”, in which they lose a large customer base to competitors if they attempt to pass on costs of investments to consumers due to high product substitutability.

This is applicable to Singapore given that small-and-medium enterprises (SMEs) make up the majority of all enterprises. Despite recent improvements, SMEs find it hard to raise capital, collect payments, and manage internal finances (ESG, 2017; MAS, 2020). To secure greater certainty and economies of scale, they may require mergers and acquisitions or joint ventures to undertake investments in sustainability initiatives.

However, this could lead to more significant market power, which reduces economic welfare conventionally defined.

### 3.2 Standards-Setting

Incumbent firms may also campaign for new industry-wide standards, which yield sustainability benefits, but may raise barriers to entry into the industry. Using an example from the United Kingdom, the construction industry is calling on the government to impose net-zero carbon standards on all new buildings by 2030 (UK Green Building Council, 2018). This reduces emissions, but could have adverse effects on competition if there is a significant cost of carbon abatement, driving up the start-up capital required to enter the industry. New entrants may have to contend with higher barriers to entry that entrench market power of incumbents.

## **4 Reconciling Conflicts**

### 4.1 Existing Approach

CCCS currently permits select anti-competitive practices if they carry a ‘net economic benefit’ or an ‘objective justification’. For instance, CCCS approved a joint venture between five poultry distributors to consolidate slaughtering services. It was concluded that the benefits, including improved economies of scale and alleviated land scarcity, outweighed the anti-competitive risks, which were themselves mitigated by ring-fencing commitments.

Since the focus of the discussion here is on novel environmental considerations, we consider three approaches below that can be integrated within CCCS’ net economic benefit framework.

#### 4.2.1 Social Carbon Costing

We propose that CCCS takes reference from integrated assessment models (IAMs) and Energy-Environment-Economy (E3) models in providing a quantitative assessment of a measure’s impact on the natural environment. Such models are already implemented by competition watchdogs like Netherlands Authority for Consumers and Markets (ACM).

The aggregate cost of climate change in an economy can be calculated as a damage function as a proportion of GDP. Consequently, the social cost of carbon (SCC) is

defined as the present value of the welfare cost at a global level of emitting a marginal unit of carbon into the atmosphere.

As a competition and consumer watchdog, it is not the prerogative of CCCS to directly develop such models. Rather, its role is that of taking reference from other government agencies directly responsible for setting the model's parameters. The Centre for Climate Research Singapore, a unit under the NEA's Meteorological Service Singapore (MCS), is currently heading the implementation of a regional climate model for estimating SCCs. CCCS could contribute to this effort by:

1. Collaborating with NEA in developing parameters within the model to simulate an exogenous shock of a merger or acquisition on the environment. This could be achieved by analysing data on how emissions tend to change with increasing output of a firm, thus better quantifying the social benefits of such potential mergers.
2. Establishing a local equivalent of the British Civil Service's Green Book with other government agencies to uniformise its cost-benefit analysis approach towards gauging sustainability impacts.

#### 4.2.2 Revealed Preference

CCCS can also explore microeconomic studies of revealed preferences by observing consumers' willingness to pay. In addition to observable market data, it is possible to estimate the value of a good that is not traded directly through surrogate data from other

markets. The model's form would depend on the particular market studied. We list several examples below:

1. Hedonic pricing: The price of a market good can be considered as a function of a bundle of characteristics. Ceteris paribus, changes in any characteristic are thus observable through changes in the good's price. For instance, if a given rise in emissions causes property prices to fall by a certain amount, this can be considered as the perceived cost of the externality to consumers.
2. Willingness to avert: One can calculate the total cost a consumer bears to avoid a particular externality. An example is the typical Singaporean household's expenditure on N95 masks and air purifiers when airborne particulates concentration rises above a particular PMI level.
3. Travel costing method: If access to a recreational site is affected, one can estimate its value through the following:

$$\begin{aligned} & \textit{Number of trips by a person/household} \times \textit{Average cost of travel to area} \\ & \times \textit{Number of consumers travelling to area in a given period} \end{aligned}$$

#### 4.2.3 Stated Preference

In markets where the above methods are not possible, such as the elimination of an entire product category, CCCS can consider an alternative of surveying stated preferences.

1. Contingent valuation: Respondents are asked to value real, existing products. If a merger is expected to lead to the removal of a good with positive environmental

externalities, the valuation of the good to consumers represents their disutility in the event the good is eliminated, and can be used to estimate part of the social cost associated with the merger. If social cost outweighs social benefit, the merger should not be approved.

2. Conjoint analysis: Respondents are asked to value particular product features separately. This would allow CCCS to estimate the consumer welfare associated with a potential sustainable aspect of a good. In a case where a product's quality changes (e.g. more sustainably-sourced meat) but its price rises as a result of an acquisition, CCCS can consider if the price mark-up exceeds how much more respondents would be willing to pay.

## **5 Caveats to Suggested Approach**

Due to imperfect information on the part of consumers and CCCS, one must be cautious in the implementation of the above approaches.

### **5.1 Estimating Benefits to Consumers**

In attempting to estimate consumers' valuation of additional utility from consuming more sustainable products under the stated preferences approach, they may be unwilling to reveal their true valuation of doing so as they are averse to higher prices. This results in concealed demand resulting from the absence of an effective mechanism to illicit their true valuation of consuming sustainable products.

Moreover, they may also not be fully aware of how they can benefit from more sustainably sourced products. This could include benefits such as consuming more sustainably sourced food products, which ensures that it can be sustainably consumed into the future, enhancing consumer choice in the long run.

Another possibility is that the products last longer or are more efficient, such as hybrid vehicles which feature rechargeable batteries. This problem is likely to be prevalent in Singapore where 56% of consumers cite poor value as the top factor for not consuming sustainable alternatives (WWF Singapore, 2021), and may be myopic and unable to realise these private benefits.

## 5.2 Undervaluation of Cost of Carbon

The current models used to estimate the cost of carbon may pose limitations and factors that are unaccounted for. Estimates from SCC modelling are sensitive to parameters like timeframe, discount rate, equilibrium climate sensitivity or the presence of stochastic tipping points (ACM, 2021). In IAMs such as the Nordhaus model, the assumption that any job not directly exposed to the weather will be unaffected by climate change (Keen, 2020) is made. This is erroneous; for instance, businesses in Singapore near coastal areas would be affected acutely by rising sea levels, with additional costs incurred in the building of seawalls to protect them. Thus, such an approach would underestimate the social cost of carbon.

Even so, the lower end of carbon estimates is at about S\$100 per tonne, still above the level of carbon tax of Singapore (Ho, 2021), which is the only current existing reference for CCCS. As a non-elected body, CCCS should take care not to place a value judgement on the cost of carbon already made by government officials, even if the price implied by IAMs is higher.

## 5.3 Response of Firms

Moreover, the effectiveness of integrating possible sustainability benefits into CCCS' net economic benefit framework depends on firms' incentives. On one hand, this could incentivise some firms to overstate sustainability benefits as a cover for anti-competitive behaviour.

On the other hand, the administrative burden of proving sustainability benefits of an anti-competitive move might discourage small firms from engaging in genuinely beneficial sustainable practices. They may incur high sunk costs in compliance with CCCS, especially if their proposal fails.

To deal with this, part of our proposed Green Book above could include details of its consideration process in approving mergers and acquisitions premised on sustainability benefits, and case studies of past cases that have succeeded and failed. This would improve information access to firms.

With all economic models, real-world application presents problems of imperfect knowledge, making the act of balancing competition and sustainability considerations even more challenging. As such, we propose that CCCS adopts a mix of sustainability indicators, including those mentioned above, in its net economic benefit framework. CCCS should ensure model assumptions are robust, but also be ready to accept some misestimations in what still is fresh territory for competition regulators globally.

## **6 Conclusion**

CCCS should take a measured approach to accounting for environmental sustainability. An activist, moralising position would risk overstepping CCCS's statutory responsibilities while refusing to evolve with a more ESG-conscious world could lead to some deeply environmentally damaging rulings.

Moreover, beyond competition law, achieving environmental sustainability has to be achieved alongside other economic policies. This includes the gradual raising of carbon taxes to better reflect its social cost, and subsidising firms' expenditure when they make investments that promote sustainability. Thus, competition and consumer protection law should be seen as a piece of a puzzle, but by no means the sole driver of sustainability in Singapore.

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