

A Publication by the Economic Society of Singapore

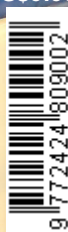
ECONOMICS & SOCIETY

Volume 1, 2022

Man & The Arts



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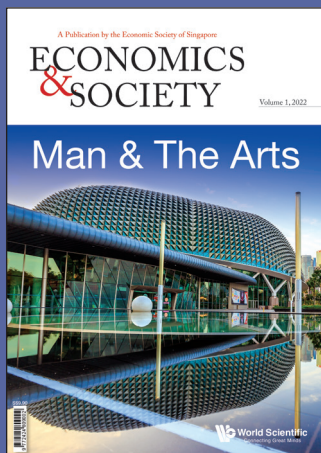
About the Economic Society of Singapore

The Economic Society of Singapore (ESS), formerly the Malayan Economic Society, was established on 28 July 1956, as a result of an initiative by graduates and staff from the Department of Economics from the then University of Malaya in Singapore.

On 28 March 1969, the Society changed its name from the Malayan Economic Society to the Economic Society of Singapore, in response to the new independent and sovereign status of the Republic.

Since 1976, the Society has been one of the founding members of the Federation of ASEAN Economic Association (FAEA). The Society published a journal, the Malayan Economic Review (MER), which was later renamed the Singapore Economic Review (SER) in 1969. The SER is now regarded as the leading journal in the Asia Pacific and it is in the Social Sciences Citation Index (SSCI) indexed journal.

Today, ESS has expanded to include members from the academic, government and business sectors. The Society organizes conferences and networking sessions to foster discussions of current economic issues relating to Singapore and the region.



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Our Mission

Since Adam Smith, the study of economics was largely motivated by the need to investigate the opportunities that people have for good living. Viewed in this light, economics is to promote a spirit of inquiry for the common good of humanity:

- A **willingness** to investigate issues in the local, school and wider community.
- A **readiness** to recognize social, economics, ecological and political dimensions of issues needed to solve them.
- The ability to analyze issues and to **participate** in action aimed at achieving a sustainable future.

(UNESCO, Teaching and Learning for a Sustainable Future)

Our mission is to help strengthen the foundation for economics to promote the above traits among citizens and fulfill what it has originally set out to do for mankind.

The foundation we mention above comprises outlook, attitude and values. We hope our economics will promote:

- a responsible and compassionate outlook to life. We believe that every one of us must bear responsibility for the development and change of the society in which we live. Our sense of responsibility must extend beyond the afflictions caused by our own actions to include miseries around us, especially those that are within our ability to help remedy. We hope that every citizen will be mindful of the consequences that follow their actions; this will be the first step towards building a compassionate society.
- intellectual inquisitiveness by encouraging people to question both the unknown and the known. We hope to see minds freed from conformism, conservatism and short-sighted interests so that morbidity will not settle in the minds of especially our young learners.
- a balance between positive and normative economics. We need to remind readers that economics is not a value-free mathematical subject; and that it is the product of a relentless effort to understand the world around us and to question the fundamental values required for sustainable living.

Together, these will lay the foundation to enable us to master the art of living, which is essentially the art of making choices that will be in line with promoting a good and harmonious living for all. This is economics for society.

Foreword



Through the Pandemic, to New Heights

Over the past two years, the global COVID-19 pandemic has had an unprecedented impact on our health, society, way of life, and livelihoods of many.

It is in times like these when people and societies reflect on what we consider important to our survival and well-being. That arts, culture and heritage are essential to society should never be in doubt, particularly for a young country like Singapore. They contribute to the building of a **confident nation** — where the human spirit can flourish, kindling pride and rootedness in the nation. They are vital in maintaining a **cohesive society** — bringing together different communities through common spaces and by embracing and celebrating differences. Through the arts, we foster a **caring people** as we share and reflect upon common experiences and highlight needs across diverse communities, including the underserved.

Even before the COVID-19 pandemic, Singaporeans were already placing more importance on arts, culture, and heritage. The 2019 Population Survey on the Arts by the National Arts Council (NAC), for instance, found that seven in 10 Singaporeans had attended arts events, and 80% of respondents expressed a sense of pride in the arts, a four-percentage point increase from 2017. Pre-COVID, visitorship to national museums and heritage institutions rose from 5.12 million in 2016 to 5.78 million in 2019. During the pandemic, many Singaporeans turned to digital arts to reflect, relax, and connect with others — 88% of Singaporeans consumed arts digitally in 2020, up from 75% in 2019.

The resilience of the arts and culture community was sorely tested during the COVID-19 crisis. To support our arts and culture practitioners during this period, the Government rolled out numerous initiatives, including the \$75 million Arts and Culture Resilience Package (ACRP), to safeguard jobs and livelihoods and protect talent in the sector. The ACRP and broad-based support schemes supported over 900 arts and culture organisations, and created over 13,000 work and training opportunities for arts practitioners, during this trying period. As we loosen restrictions and move towards a “new normal”, we will continue to support the arts and culture sector in recovering from the pandemic.

The impact of COVID-19, and the pace of change of the world around us, means that it is not sufficient for us to recover to where we were before, as the world has not stood still. Instead, we must look to climb to new heights by building on our strong foundations and capitalising on exciting new opportunities, such as the intersection of technology and culture. To do this, we must make the economics of the sector work. Locally, the 2021 Singapore Cultural Statistics revealed that the direct nominal value-added contribution from the arts and culture sector was \$1.84 billion in 2019, up from \$1.55 billion in 2013, a significant increase which shows how much the sector is growing, and that there are ample opportunities for local arts, culture, and heritage professionals.

Global cultural hubs, such as London or Tokyo, are able to maintain vibrancy

and innovation in their cultural landscapes through sophisticated ecosystems including government funding, philanthropic support, and competitive business landscapes. By improving our own creative and cultural ecosystem, we will be able to create good, sustainable jobs and income for our practitioners, as well as improving tourism and our international standing.

Achieving this requires us to work hand in hand with our partners across the public, private, and people sectors.

We are actively supporting our arts and culture practitioners in braving new frontiers, and in making the concomitant changes in organisational structure and direction that are needed to address these new opportunities. In February 2022, we launched the Arts and Culture Digital Roadmap to support arts and culture organisations in digital adoption. NAC and the National Heritage Board (NHB) are also working on the next iteration of Our SG Arts Plan and Our SG Heritage Plan, which will set the stage for the next phase of our development as a global city for arts and culture. To support these transformation efforts, the Organisational Transformation Grant (OTG), part of the ACRP, and NAC's new Sector Transformation Fund will help arts and culture organisations engage in long-term transformation and development. In addition, a new university of the arts will be formed by an alliance between LASALLE College of the Arts and the Nanyang Academy of Fine Arts to train a new generation of cultural professionals, with skillsets that will set them in good stead for the changing world around us.

We are also looking into the supporting factors which enable our practitioners to do their good work. For instance, earlier this year, we announced a \$150 million top-up to the Cultural Matching Fund to encourage cultural philanthropy and enhance the sustainability of the sector. This will supplement the already generous efforts of individuals and companies to support the arts and culture scene, such as Singtel's support for Esplanade's new waterfront theatre. On the infrastructure front, we are looking into how we can create more spaces for arts practitioners to experiment and innovate. Again, we are working with the private sector on this — for example, with the support of Mapletree, we have opened the Singapore Art Museum (SAM) at Tanjong Pagar Distripark, turning a former industrial warehouse into a location for experimental arts exhibitions and programmes.

The challenges we have faced over the past two years have showed the resilience and adaptability of the arts and culture community. Practitioners and audiences alike have had to adopt new ways of engaging with their crafts, but our commitment towards building a confident nation, cohesive society, and caring people remains unchanged. By working together, I am confident we will be able to answer these challenges as we continue to nurture a thriving arts and culture sector.

Mr Edwin Tong

Minister for Culture, Community and Youth & Second Minister for Law

Note from the Editorial Team

The Arts are integral to the economic and social well-being of a society. In the COVID-19 pandemic, we have seen an increase in the number of people engaging themselves in the arts to express themselves emotionally and physically.

What is the relationship of economics and the arts in Singapore's society today? The editorial team seeks to examine this question in this issue of *Economics & Society*.

As a young nation, the Singapore's government plays a particularly important role in developing arts and culture in Singapore. We are honoured to have Minister Edwin Tong, Minister for Culture, Community and Youth & Second Minister for Law to write the foreword for this issue.

In an exclusive interview, we examine Singapore's ability to maintain harmony between economic development and cultural preservation with Ms Chang Hwee Nee, Chief Executive of National Heritage Board.

The essays in this issue are written by young scholars, Mr Gabriel Yap and Ms Chong Yong Qi. In these essays, they share their views on the dynamic relationship between economics and the arts, and their vision for the future. Mr Yap discusses the economics of concerts, carnivals and conventions, while Ms Chong sheds light on the role of architecture.

As the adage goes "a picture is worth a thousand words", we present an infographic by local artist Mr Tan Eng Khoon. In this infographic, Mr Tan presents his vision of how an input-light model can increase the vitality of Singapore's economy.

In perspective, we had a conversation with Mr Anthony Chen, award winning Singaporean film director, screenwriter and film producer. In this conversation, we discuss about Mr Chen's views of the future of film-making in Singapore.

The winning entry of the MAS-ESS Essay Competition 2021 bookends this issue. Titled "From Singapore Private Limited, to Singapore Virtually Unlimited", the authors share their views of economic drivers in a post-COVID world.

It is our hope that the readers would find the articles in this issue useful and intriguing.





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In Conversation with **Ms Chang Hwee Nee**



Ms Chang Hwee Nee is the Chief Executive of National Heritage Board (NHB). Prior to joining the NHB, she has held senior positions in the Ministries of National Development, Education, Health and Finance. Miss Chang graduated with a Bachelor of Arts in Economics (Honours) from the University of Cambridge, United Kingdom and a Masters' degree in Public Administration from Harvard University.

The Singapore Botanic Gardens ("the Gardens") is a valuable site steeped in over 150 years of history and was inscribed as a UNESCO World Heritage Site in 2015. This has understandably put Singapore in the spotlight and channelled favourable attention to our ability to maintain harmony between economic development and cultural and natural preservation.

Beyond a sense of pride which Singaporeans feel about having a culture of world significance, how do you think the Gardens' newfound status has contributed to Singapore's economy (e.g., in tourism and botany research, among others)?

The Singapore Botanic Gardens is a world-renowned institution for tropical botanical and horticultural research, education and conservation, with a long and rich history since the 19th century. It was at the Gardens that rubber cultivation and extraction were perfected, catalysing the rubber boom in the region and subsequently the world. In recognition of its contribution and relevance to world heritage, it was

inscribed as a UNESCO World Heritage Site in 2015. This is our nation's first! Since then, many more people are aware of the Gardens' status as a World Heritage Site — 85% in 2019, compared to 78% in 2017.

The Gardens has been a prominent centre for plant research in Southeast Asia since the 19th century, and over the years, the Gardens has enjoyed the support of corporate and individual partners who fund development, research and botanical or horticultural projects. Since the inscription as a UNESCO World Heritage Site, even more contributions have flowed in. These have enabled us to grow Singapore's first Seed Bank in the Gardens and to develop the Gallop extension. We also have an extensive project to catalogue and describe more than 3,000 plants in Singapore, under the Flora of Singapore research series. Today,

the team of nearly 20 researchers at the Gardens is working with collaborators from around 30 countries, such as the US, UK, Europe, East Asia and those in the region.

The Gardens has won the hearts of generations of Singaporeans and visitors. Its beauty has drawn many from far and near, and inspired artists and designers in the creative industry. I am sure many have precious memories on the Gardens' grounds — I often encounter wedding parties and happy families enjoying the trails and programmes. It draws almost 5 million visitors each year today. Perhaps unsurprisingly, many tourists are drawn to a special part of the Botanic Gardens — our National Orchid Garden. I like to think that the Gardens is deeply rooted in our national identity, flourishing as a result of our collective care and appreciation for it.



On a related note, notwithstanding the significant gains from tourism receipts, are there any dangers of Singapore's heritage sites being commoditised? Specifically, are there safeguards to prevent local heritage sites (not restricted to the Gardens) from turning into a Disneyland? Any insights on the cost-benefit analysis conducted prior to opening up a heritage site to unrestricted public access would be helpful.

Heritage is intrinsically linked to memory-making, for both locals and tourists. For a land scarce city state where land is a premium, Singapore has done well to have 74 National Monuments and over 7,000 conserved buildings.

Heritage is intrinsically linked to memory-making, for both locals and tourists.

These heritage sites are often important spaces for communities to gather. We retain many of them — for example places of worship — in their original functions. Many of our key national museums and heritage institutions are also housed in our monuments and conserved buildings.¹ Through NHB's signature festivals and initiatives such

¹ These include National Museum of Singapore, Asian Civilisations Museum, The Peranakan Museum, Malay Heritage Centre, Sun Yat Sen Nanyang Memorial Hall, Singapore Art Museum, and National Gallery Singapore. Additionally, Singapore Philatelic Museum — which will reopen as Singapore's first dedicated Children's Museum in late 2022 — and Reflections at Bukit Chandu are conserved buildings.

as the Singapore Heritage Festival and heritage trails, we are proud to have increased access to heritage sites so more Singaporeans can experience these spaces.

We do need to strike a careful balance between heritage preservation and economic sustainability. On the one hand, many of these heritage sites have to be adapted for reuse to keep up with the times and stay relevant. At the same time, we learn continuously from earlier experiences and public response to guard against the challenges of commodification and the “Disneyfication” of heritage, and to avoid what UNESCO refers to as the dangers of decontextualisation. Since the first Conservation Master Plan in 1986, we have been fine-tuning our adaptive reuse strategies.

Take for example Temasek Shophouse, a three-storey building — part of a row of conserved buildings — built in 1928 and given conservation status in 2000. The building was originally conceived as a townhouse with commercial space on the ground and residential apartments above. In 2017, Temasek Shophouse underwent an extensive restoration and was transformed into a publicly accessible social impact hub on Orchard Road, to feature co-working spaces and social enterprises, as well as house Temasek's philanthropic entities. Recently, Temasek Shophouse was awarded the 2019 Award for Restoration at the annual URA Architectural Heritage Awards,

a recognition of the exemplary care taken to ensure maximum retention, sensitive restoration, and careful repair. Adaptive reuse is a dynamic process, and each site is unique in its needs and functions. This calls on us to be flexible in our approach while maintaining conservation principles.

Prior to the UNESCO listing, Singapore had typically been recognised by tourists as a shopping paradise, with key draws such as Sentosa, Gardens by the Bay and the Integrated Resorts to boast. Does NHB feel the need to compete with the above attractions to place heritage sites such as the Gardens on every tourist's to-do list when they visit Singapore?

We are fortunate to have so many attractions well-loved by locals and tourists and we should increase the range and diversity of options for both groups of visitors to meet their varied interests. NHB's efforts are directed towards building social capital so Singaporeans know and understand our history, feel a greater sense of rootedness and identity, cherish and celebrate our shared cultures, and recognise the importance of leaving a heritage legacy towards a vibrant future.

At the same time, if we can draw tourists to our heritage sites, it will deepen their understanding of Singapore's history. Tourists also have a choice of many places to visit – in Singapore, and around the world. Drawing tourists to

our heritage sites challenges us to tell our history in more compelling ways. And with more tourists, we generate more resources to enhance our heritage sites.

Actually, attracting local and foreign visitors is synergistic: what is more attractive to tourists will naturally excite locals and imbue a sense of pride, and draw in more locals, while foreign visitors will get a better sense of Singapore's character and spirit. Collectively, a wide range of offering — including heritage sites, museums, and the many you have listed — contributes to a vibrant city and endearing home.

Heritage can be broadly categorised into tangible and intangible cultural heritage. Tangible heritage includes buildings and landscapes e.g., the Gardens that serve as physical reminders of our history and culture, while intangible heritage includes practices, events and trades which communities recognise as part of their cultural heritage.

In March 2019, Singapore submitted the nomination documents to inscribe an intangible heritage — Singapore's hawker culture on the UNESCO Representative List. Do you see a difference between the value of tangible and intangible cultural heritage in a country?

Cultural heritage comprises both the tangible and intangible cultural heritage. The former relates to our beloved spaces, while the latter, also known as living heritage, enlivens the tangible buildings and sites through the traditions and

practices associated with the spaces, and stories of past and lived experiences.

For instance, while our national monuments and conserved buildings serve as important physical reminders of our history and culture, various forms of intangible cultural heritage, such as processions or festive celebrations take place within these buildings. Intangible cultural heritage therefore complements and reinforces our appreciation and understanding of our tangible heritage in our multicultural society. It is important to consider them holistically, rather than as separate entities.

Both tangible and intangible cultural heritage foster social cohesion and contribute to our identity as Singaporeans. We know from international studies that heritage places play a pivotal role in anchoring our memories and engendering a sense of belonging and rootedness. Studies on human brains also show that rootedness enhances our physical, physiological, and emotional wellbeing. NHB has embarked on several initiatives to improve wellbeing through heritage participation. This includes an international collaboration with National Museum Liverpool and British Council to develop an application which uses our National Collection to support persons with dementia and their caregivers.² We are also working with local partners such as Lien Foundation and Khoo Teck Puat

Hospital Geriatric Education & Research Institute to spearhead meaningful programmes and better understand the social benefits of heritage. While these effects are continuing to be studied, it is clear that cultural heritage brings benefits in multiple ways.

In December 2018, a survey with 7,500 Twitter users across 13 countries conducted by the media giant found that around 25% of travellers who use Twitter have been to Singapore — with the top reason for visiting being Singapore’s good local food. Given the vibrancy and draw associated with Singapore’s food scene, how important is it for Singapore to obtain UNESCO recognition for this intangible asset?

We identified hawker culture as Singapore’s first intangible cultural heritage nomination to UNESCO because it is an integral part of everyday life in Singapore, and a common experience that resonates with people regardless of our individual backgrounds. Hawker centres serve as important community dining rooms where people from diverse age groups, ethnicities and backgrounds interact over food.

In early 2018, in a poll conducted as part of NHB’s Our SG Heritage Plan, the public identified “Food Heritage” as the most important aspect of heritage. Subsequently, in-depth focus group discussions in 2019, which included a spectrum of participants, consistently highlighted Hawker Culture as the form

² <https://www.todayonline.com/singapore/coming-2020-dementia-friendly-app-seniors-loaded-museum-provided-content-jolt-memories>

Hawker centres serve as important community dining rooms where people from diverse age groups, ethnicities and backgrounds interact over food.

of intangible cultural heritage that best represents Singapore's multicultural heritage. Since we embarked on the nomination effort, it has been encouraging to observe Singaporeans showing their strong support.

While we recognise that our hawker centres appeal to both locals and foreign visitors, our nomination of Hawker Culture is primarily to bring pride among Singaporeans and celebrate our multicultural heritage. Recognition by UNESCO will encourage greater

appreciation for our hawkers and their fare and ensure the sustainability and vibrancy of our Hawker Culture. It will also be a strong recognition of our dedicated hawkers and their hard work towards contributing to the rich food heritage of our country.

We are pleased that UNESCO affirms our recognition of Hawker Culture as integral to our identity — you may recall the rush of pride and jubilation amongst Singaporeans when Hawker Culture was successfully inscribed to the UNESCO





Representative List of Intangible Cultural Heritage of Humanity in December 2020!

Following the success of the Hawker Culture nomination, the NHB has embarked on consultations to identify possible elements for Singapore's second UNESCO intangible cultural heritage nomination. After a series of focus group discussions, we have identified a total of 10 possible elements. These include Chingay Parade, the Making and Sharing of Kueh, Orchid Cultivation, Yusheng, and various other suggestions. NHB will broaden its consultations to engage the general public, before a final decision is made on the element to be nominated.

Singapore's economic growth has been steady and fast-paced in the past few decades. It is clear that having achieved progress in material living standards, Singaporeans are increasingly looking towards the fulfilment of other non-material aspects of life. As a result, Singaporeans are also becoming more aware of the role of heritage in establishing and anchoring our sense of identity, as evident from the growing number of online communities documenting Singapore's heritage sites and passionate debates about preserving historical sites such as Bukit Brown.

Can you shed some light on the work that goes on behind the scenes in deciding which heritage sites to preserve (e.g., collaboration across Ministries or cost-benefit analyses involved)?

An important thrust of Our SG Heritage Plan is to incorporate heritage considerations into planning by working closely with public agencies in the early stages. The inter-agency collaboration was enhanced with the completion of an NHB survey on Singapore's tangible heritage landscape in 2017. We have also made public the information: on [Roots.sg](https://roots.sg), you can access a tangible heritage inventory to learn more about our 74 national monuments, various marked historic sites, heritage trails and buildings, sites and structures of architectural, historical and social significance. We will add more progressively to raise greater awareness and appreciation of our built heritage.

With careful and early planning, we can weave heritage in our urban and town planning to enhance the character of our day-to-day spaces and create identity nodes in our neighbourhood. An example is the Bidadari estate, where NHB worked with the Housing and Development Board (HDB) to research on the heritage of the area. We will develop a Heritage Walk along Old Upper Aljunied Road to feature the history of Bidadari and the contributions of prominent figures associated with the area. We will also integrate the Bidadari memorial garden that commemorates the former Bidadari Cemetery into the future Bidadari Park. These efforts to incorporate heritage into urban planning will make Singapore a more distinctive city and endearing home.

We acknowledge that trade-offs are occasionally inevitable. In these instances, we evaluate the considerations holistically and implement mitigating measures to minimise the impact. We also conduct public engagement and consultation as part of the planning

process to ensure that the views of experts and key stakeholders concerning heritage issues are considered in policies and plans. An example is the Dakota Crescent estate, which was built in 1958. Over time, the flats aged, and residents were relocated to newer HDB flats. In 2016, the Save Dakota Crescent group submitted a comprehensive conservation plan for the estate and government agencies worked with the group to study various options. It was eventually decided that the estate will be redeveloped for new public housing while the central cluster of buildings around the courtyard and the iconic Dove playground will be retained and repurposed for future civic and community use.

The above cases illustrate our approach towards achieving a balance between meeting Singapore's long-term development needs and maintaining the unique history and character of our places.

As part of our continual efforts to improve our processes, the URA, HDB and NHB commissioned a large-

With careful and early planning, we can weave heritage in our urban and town planning to enhance the character of our day-to-day spaces and create identity nodes in our neighbourhood.



scale detailed heritage study of the Old Police Academy in 2018. The study's findings resulted in the conservation of six buildings within the Academy, which will be incorporated into the future housing estate. The study's learning points have also led to the introduction of the heritage impact assessment (HIA) framework, which was announced in March 2022. Under the framework, public projects that are likely to cause major impact to significant heritage sites may be required by URA and NHB to conduct heritage studies. The new HIA framework further strengthens how public agencies must thoroughly evaluate the heritage significance of a site as an important consideration in the early stage of early planning for development projects.

We are mindful that public consultation is an important part of the assessment and planning process. We are also heartened to observe more public interest and encouraged by citizens' active participation in understanding our past and sharing their aspirations for the future. We work closely with stakeholders

such as the Singapore Heritage Society (SHS), both formally and informally. The Public-Private-People partnership is also evident in our efforts at place-making and programming to enliven neighbourhoods and public spaces. We hope more partners, including the Economic Society, will come forward and work with us to grow public consciousness around the value of heritage.

The government runs a "Our SG Heritage Plan" which is the first master plan for Singapore's heritage and museum sector that outlines the broad strategies and initiatives for the sector over the next five years (2018 to 2022) and beyond. Can you share more on the strategic thrusts under this plan and whether you foresee subsequent master plans after the objectives under the first one are met?

Our SG Heritage Plan is Singapore's first dedicated masterplan for the future of Singapore's museum and heritage sector. We formulated the plan after an extensive stakeholder engagement

process involving over 30 focus group discussions and consultations with more than 700 participants. It was heartening that over 7,300 people provided their views, showing the strong support from Singaporeans.

We developed the plan in response to the growing interest in heritage and museums among Singaporeans. More people wish to play an active role in protecting and promoting our heritage. The fabric of our society is also evolving and the pace of change increasing. Our SG Heritage Plan outlines how we — across government, with citizens, and among citizens — can work together to protect and promote Singapore's heritage so it remains valued amidst our ageing population, an increasingly diverse society, rapid technological changes, and globalisation.

We have grouped the key strategies of Our SG Heritage Plan into four pillars: Our Places, Our Cultures, Our Treasures, and Our Communities. Individually, these pillars deep dive into the core components of Singapore's heritage; collectively, they cover the breadth of NHB's work with our many stakeholders and partners. Some of the key initiatives of the plan include increasing appreciation of intangible cultural heritage, encouraging community ownership of heritage, leveraging technology and digitalisation, and ensuring greater accessibility and inclusivity at our museums. We hope that through these efforts, more

Singaporeans deepen their connection to our shared heritage.

Master plans are, by nature, work-in-progress and while they encapsulate key strategic thrusts, they must also be constantly updated to remain relevant. I am happy to share that we are already working on the next phase of Our SG Heritage Plan.

Your first degree was in Economics, which may not be the direct focus of NHB's work. Can you share with us how your Economics training has been useful to your current work?

My entire career has been with the Singapore public service and I am proud that fiscal prudence is a hallmark of our governing philosophy and successful management of the economy. In my current work, I have been encouraging my colleagues to use data, do rigorous analysis and take a more evidence-based approach to policy-making. That means we consider value-for-money, opportunity costs for the capital and resources, as well as closely monitor policy objectives and outcomes.

I am personally encouraged by the emerging empirical research into the value of heritage. There is currently a paucity of cultural economics research in Singapore, and NHB is actively monitoring and working with academics in universities and research institutes to develop this field. For example, we have commissioned Dr Euston Quah,

the Albert Winsemius Chair Professor and Head of Economics at the Nanyang Technological University (NTU), to assist us with a study on the economic value of heritage. This will build on his earlier study in 2019, on economic valuation of heritage sites in Singapore, using Contingent Valuation Method and Pairwise Comparison to measure the total economic value of Lau Pa Sat, former Tanjong Pagar Railway Station and Haw Par Villa. The study elicited Willingness to Pay (WTP) for the maintenance and preservation of these sites, and potential correspondence with demographic attributes. For example, Singapore citizens were found to have significantly higher WTP compared to non-citizens. That seems to me to bode well for NHB's efforts! NHB has also

recently provided a research grant to the National University of Singapore (NUS) to develop a decision-support tool for the conservation of post-independence buildings in Singapore. We hope that this project will provide useful insights in our discussions on modernist buildings in Singapore.

Of course, my colleagues and I are still working through what studies like that mean for us as policy-makers, and how we can incorporate these insights to our work. However, we also recognise that cultural economics is a developing field and, naturally, there will be limitations to the applicability of the research findings in policy formulation. Therefore, we should consider a variety of indicators to measure the impact of our work. We have to develop a holistic





and multi-dimensional understanding of the value of heritage, and while we are making a modest start now, we are mindful that this will be a long-term effort involving many stakeholders.

On a personal note, could you share with our readers which is the most satisfying aspect of your work?

As with any head of an organisation, my work is multi-dimensional. To fulfil the vision and mission of NHB, it is important for me to build a strong institution, grow our staff, partner our stakeholders and delight our customers. I find the most satisfying aspect of my work is the opportunity to work

with my team at NHB as well as our partners and volunteers who are all very committed and dedicated to promoting and safeguarding our shared culture and heritage. Ultimately, it is all about people — the passion and enthusiasm of our heritage and museum community is most inspiring! All of us find it very meaningful to promote a better understanding of our past, so that we understand our present to navigate our future with greater confidence. It is very rewarding to be given this opportunity to harness the tremendous amount of energy and creativity of my team and the community towards achieving our shared aspirations.

Chasing the Next Big World Tour

The Economics of 3Cs: Concerts, Carnivals and Conventions — And Why We Should Rethink the Arts in Singapore

by Yap Kang Ren Gabriel





Singapore's longstanding quest to become the leading arts hub in Asia has led to the inauguration and buttressing of many mainstay arts events year-round. Just by mentioning the Arts in Singapore, well-known events such as the Singapore Arts Week, the Singapore Biennale and the Singapore International Festival of Arts come instantly to mind.

These events have been aptly complemented with upgraded arts infrastructure in the form of Gillman Barracks, National Gallery Singapore and the newly renovated KC Arts Centre, just to name a few. And with the National Arts Council's (NAC) ever-increasing public funding for arts events, we are on track to establish ourselves as the leading international force in the arts world.

The Rise of the 3Cs — Concerts, Carnivals and Conventions

The NAC has seen remarkable success through the years in generating public interest and cultivating a sustainable arts environment in its fields of focus. These are namely,

music, dance, theatre, visual and literary arts. Despite some temporary hiatuses due to the Covid-19 pandemic, many flagship arts events in these particular categories have been long running, with new performances or artists added to their lineup annually.

I feel that there is room, however, for us to expand our scope of focus into newer forms of art that are gaining traction especially among the youth.

Before the pandemic, I noticed that many popular events that my friends attended (and more importantly, posted about) fell into three main categories outside of the NAC's traditional focus. These were: concerts and music festivals, carnivals, as well as conventions.

The C3 Anime Festival Asia (AFA) was one such "convention" that attracted over 100,000 anime and cosplay fans over three days. More than just anime however, the event pandered to a wide variety of interests, allowing independent creators to sell their merchandise, giving gaming enthusiasts the chance to play with guest cosplayers, and music fans the opportunity to catch live performances of their favourite anime pop songs.



These lightsticks sold at Twice's and BTS' concerts synchronise via Bluetooth to colour-coordinate with other lightsticks and blink to the rhythm of the song being performed. In light of the pandemic, where audience members are discouraged from singing along, these collectibles could help us better connect to the artists on stage, and perhaps function similarly to a TraceTogether token in other countries.

Many new yet immensely popular carnivals have also sprung up across our island over the past few years. Artbox Singapore, the Prudential Marina Bay Carnival and the Shilin Night Market were huge successes, drawing large crowds and spawning countless social media posts of brightly-lit carnival rides and colourful "Instagram-worthy" food and drinks.

As a fan of K-pop myself, I was surprised at the sheer crowds that popular groups BTS and Twice attracted when I went for their concerts as well. While it was my first time

seeing both of those groups, I heard from other concertgoers that despite Twice having a stop in Singapore every year, the number of attendees was still growing annually. I was also one of the many fans who decided to "recce" the Singapore Sports Hub on the day before BTS' concert, and was surprised to see many fans already lining up to buy their merchandise. A staff member told me that the entire venue, including the adjacent open areas and arenas, were all mobilised for the concert, making it one of the largest events ever hosted by the Sports Hub. On D-day, the

entire stadium was overflowing with zealous concertgoers ready to catch their favourite idols perform.

Demand and Expenditure

Why are these newer "3C" events (concerts, carnivals and conventions) garnering more attention and churning in more profits, especially from younger audiences, than conventional arts events?

In a world where every weekend experience and every nice outfit worn for a specific occasion needs to be shared to all of our friends, the ability for millennials to casually take pictures of themselves at designated photo spots, and post them online with dedicated event hashtags, differentiates 3C events from conventional arts events held in concert halls or art galleries where photography is limited. Furthermore, even when photography or videography is permitted at conventional arts events, many times these are not able to capture the true atmosphere/beauty of the art form presented right before our eyes.

That would also explain why

many art galleries in Singapore have gradually evolved their exhibits to make them more interactive and “Instagram-worthy” to appeal to the younger demographic. When I visited the ArtScience museum in 2019, I was impressed with the long running Future World exhibit which offered colourful play spaces and mesmerising digital installations, as well as the temporary Alice in Wonderland-themed exhibit which sent me and my friend down the rabbit hole through an interactive adventure.

Nonetheless, 3C events still have the added advantage of being social gathering spaces for young ones to catch up with friends or meet their online fan communities in real life. Pop-up urban carnivals have given youths a reason to meet up with friends in areas where loud talking is not prohibited, while concerts and conventions each cater to niche subcultures that have their own dedicated fanbases. 3C events, amplified by their online social media presence, are thus synonymous with the FOMO (fear of missing out) phenomenon: If all my friends are going, I need to go too; if all the fans are going, how can I call myself one if I do not?

Besides merely attending these events, the amount of money that teenagers (I admit, including myself) are spending there are skyrocketing as well. Whereas I was reluctant to even provide a voluntary contribution of any sum of money to get the programme booklet for a play, I did not think *twice* before spending my precious savings on Twice’s merchandise during their concert. More than just impulse buying, some economic concepts can also be used to explain why we are more inclined to spend at these 3C events.

As for the prices of concert tickets, the advent of streaming platforms has led to a decline in revenue from album sales, forcing artists to turn to tours as a primary source of revenue. With popular artists only reaching our shores every once in a blue moon, and with concert venues only being able to accommodate a limited number of attendees (even more so due to social distancing measures), often times the shortage leads to a “black market” in the form of secondary ticket scalpers reselling tickets at many times the original prices. Of course,

concert promoters have realised that if a fan is willing to buy a resold ticket at an inflated price, surely they ought to be able to increase original ticket prices to boost revenue. Still, if the Carousell listings for concert tickets selling at inflated prices mean anything, there is still potential for ticket prices to rise even higher.

Pricing strategies have also taken the form of dynamic pricing and price discrimination to leverage on superfans’ ability and willingness to pay extra for an added experience. Category 1 tickets for BTS’ concert tickets went for a whopping \$348 as compared to a regular seated ticket of under \$100 despite the only benefit being a closer view of the stage and a lucky draw to enter the pre-concert sound check, with limited view tickets released days before the concert being sold at the same price as category 2 tickets. The same pricing strategies catered to different fans at the C3 Anime Festival Asia, with tickets going for as low as \$15 to as high as \$448 for different types of access at the convention.

As for the prices of merchandise sold at these events, the scarcity bias comes heavily into play when

influencing consumers to spend more at these events. At concerts, promoters deliberately bring in limited supplies of merchandise in order to jack up prices and attract fans to queue overnight for these “limited edition” goods. Seeing the “sold out” sticker gradually being pasted on more and more items, even those in line that do not intend to buy many products end up snapping up as many items as they can get their hands on!

And how can I forget every Singaporeans’ favourite pastime? Eating! At the hugely popular Geylang Ramadan Bazaar for example, limited edition items came in the form of creative fusion food such as praffles (waffle-prata hybrid), bubble tea pancakes, youtiao churros and many more innovative food items which are inexpensive to make, but are really hard to find elsewhere. Whereas a normal prata will cost you less than a dollar, the novelty of a praffle would cost you upwards of \$7.

Why is this Art?

Why should these 3C events then be taken into consideration as part of the arts

scene in Singapore? Besides the pragmatic fact that their demand has been rising and that they have the potential to rake in more revenue, even for Singapore in the macroeconomic sense (which I will touch upon later), I

believe that there is artistic and cultural value in these events that also gives us a reason to devote greater attention to their propagation.

Concerts themselves are constantly evolving forms of performance art — with



At Twice’s concert, stock was so limited that only those who queued up the day before the concert were able to purchase popular items.

larger, moving screens, more extravagant pyrotechnics and huge entourages of dancers, backup singers, and production crew, the biggest artists invest a lot into making each tour better than the next. At the Kpop concerts that I went to, even the fans got to be part of that exciting display with lightsticks that synchronise with the music in the arena to create oceans of light.

At conventions, dedicated fans also express their artistic creativity in different ways, through cosplay, selling their own art at exhibition spaces (such as Festival's Creators Hub at the C3 AFA), and even performing covers of their favourite songs. With the potential to integrate art installations and exhibitions at popular urban carnivals, alongside the innovation of new food items that continuously advance our local food culture, there is more artistic and cultural value at these events than we give them credit for.

Economic Impact

To quote the former Chairman of the National Arts Council, Liu Thai Ker, there is nothing wrong in the Arts being aligned

with economic impetuses. The realisation of which in the late 80s after the economic recession added another justification for Singapore to increase its expenditure on the Arts. Concerts, carnivals and conventions are not excluded from this advantage as well.

According to a Korean University Business School research team headed by professor Pyun Ju-Hyeon, BTS' two-day fanmeeting in Busan generated 130 billion won, equivalent of six days of all household and business economic activity in the city, whilst the group's two-night Seoul concert had an economic effect of 350 billion won, equivalent to three days of economic activity in Seoul. With just four days of performances alone, the combined injection into the Korean economy totalled 481.3 billion won!

Many may argue, however, that the case study of BTS only works when analysed in the context of South Korea, where the group hails from. In macroeconomics, we learn that imported goods and services are subtracted from the computation of our GDP. Does that mean that

when a foreign artist holds a concert in Singapore, we stand to reap substantially lesser economic benefits? To answer this question, let me provide an anecdote of my own experience last year.

Just like any other "kiasu" Singaporean, I had decided to queue overnight for their concert tickets before they went on sale, right outside the SportsHub ticketing booth. To my surprise, I saw fans carrying not just mats and snacks but huge suitcases to last them through the night. It was later that I realised that they were foreigners who flew in to Singapore not for the concert, but rather, just to buy the tickets for themselves and their friends at home!

As shown, this conundrum does not hold if we take into account the amount of tourists that concerts, conventions, and perhaps even carnivals have the potential to attract. In fact, the number of foreign tourist arrivals increased by 187,000 for BTS' three-day performance in Seoul in 2019, bringing their latest concert an estimated economic effect of nearly 1 trillion won, rivalling that of an Olympic Games. A ripple effect is created as fans

spend on merchandise and snacks, visit nearby attractions, stay in local lodging, and look for the best eateries in the vicinity, which in turn give a boost to local incomes, fuelling additional consumption. This is exactly the multiplier effect in play, and it applies similarly to conventions and carnivals as well.

Looking Towards the Future

While I have spent a bulk of the essay so far establishing the cultural, artistic and economic value of 3C events, it is equally important to discuss what Singapore can do to bolster its support for these events nationwide, and the various challenges that may impede us from doing so.

Covid-19

I must admit that this essay would be out of touch without acknowledging the current situation at hand. Many popular 3C events have been cancelled or postponed due to the pandemic. These include foreign artists who could not fly into the city due to travel restrictions, as well as music festivals such as Sentosa's

Stereofest and Gardens by the Bay's Hydeout, among many others.

Still, it is heartening that the relevant authorities have acknowledged the importance of preserving live arts events while paying close attention to public safety. As Singapore enters our safe reopening plan, capacity for event venues has increased. The National Arts Council and the Singapore Tourism Board have also worked together to introduce live performance pilots islandwide. The 80% subsidy for venue hire and in-house production cost that the Ministry of Culture, Community and Youth currently provides for art and culture activities was also extended.

It is imperative that organisers take necessary precautions to protect the health of all attendees in order to keep 3C events running. The cooperation of those who feel unwell to refrain from participation is of utmost importance as well. At the onset of the pandemic, Garden Beats, a music festival held at Fort Canning Park, already set a good example by stationing eight hygiene points across

the festival grounds providing anti-bacterial wipes, anti-bacterial foam and hygienic waste disposal cans. No clusters originated from the event.

The Back To Live concert at the Sands Theatre, Singapore's first live concert since its coronavirus outbreak in early 2020, required all of its 400 ticket holders to undergo mandatory swab testing a few hours before the concert, sit one metre apart between functional groups of a maximum of five people, and refrain from lingering at the venue after the concert ended.

Infrastructure and Logistics

Over time, significant progress has been made in coping with the huge crowds of people at these events. I was impressed with how the Singapore Sports Hub staff handled some of the more disorderly fans with much patience yet firmness. Newer events should learn from more established ones just like the F1 Singapore Grand Prix, which has evolved since its inauguration in 2008 to better manage congestion through announcing road closures well in advance and engaging many ushers on the day of the event.

However, congestion can

never be fully resolved through simple contingency plans, as many other problems such as long wait times will always persist whenever there are crowds. Furthermore, new crowd management issues have emerged due to the pandemic, such as ensuring that people adhere to safe distancing measures and do not intermingle between functional groups. To this, I suggest looking towards technology to further alleviate these problems.

Instead of waiting in line to buy merchandise or food items, why not order everything online or through a mobile app and collect it either at home through delivery or on site when it is ready? Or a wait time alert system that can double up as an interactive map of the venue to prevent overcrowding? This is exactly what BTS' company, Big Hit Entertainment, has already rolled out at their 2019 fanmeeting. By enabling concertgoers who were within a 2.5-kilometre radius of the concert venue to pick up their merchandise by scanning a QR code after making their orders online, not only did concertgoers avoid the painful process of waiting in lines,

BTS was able to double their revenue from merchandise sales alone.

Other than our smartphones, other Bluetooth-enabled devices such as lightsticks (pictured on page 20) and TraceTogether tokens could also serve other functions to enforce safety. Additional functions can be added to them, such as lighting up in red or beeping when they sense other devices within their one-metre radius so as to remind event participants to maintain their safe distance.

Technology

While 3C events have the potential to attract even foreigners to travel all the way to Singapore just for a one-night experience, the increase in competition from other regional cities can also lead to the reverse happening. Music festivals such as ZoukOut and Ultra have seen a decline in attendeeship over the years due to competition from other regional festivals headlined by bigger stars. Furthermore, the pandemic has severely curbed our ability to bring in both foreign audiences and artists alike.

Leveraging on technology is one such way in which we can overcome these challenges. Especially in the aftermath of the pandemic, many concerts and events companies have turned to live-streaming as an alternative source of revenue. K-pop stars BTS broke records by drawing more than one million concurrent viewers to their ticketed, two-day online concert featuring state-of-the-art Augmented Reality (AR) stages.

More than just conventional live-streaming, Virtual Reality (VR) can be used to bring the event experience to those who are not able to attend events in real life. Already, platforms such as MelodyVR and Oculus Venues which offer paid-for live-streaming of concerts in VR are revolutionising the concert going experience in the US, especially as its capabilities to mimic real-life experiences continue to develop at a rapid pace. Recently, local artist ShiGGa Shay teamed up with digital entertainment company MRGE for an interactive performance set in real-time via his website. The '365' Mixed Reality Experience featured the hip-hop trailblazer in a motion-capture suit, adopting

a bespoke digital avatar and taking viewers to fantastical 360-degree environments in real-time. Imagine if other 3C events could create such virtual environments, enabling participants to meet artists or like-minded fans in unique virtual dimensions!

Integration

Still, many feel that the atmosphere and thrill of attending events in real life could never be fully replicated by alternative reality, explaining why many members of the public are still unwilling to pay for virtual live-streams, especially for lesser-known artists or events, rather than the real thing.

Rather than a replacement for physical events, therefore, virtual events can run alongside their physical counterparts, especially as we return to a new normal and further ease Covid-19 restrictions. Indeed, events such as the Esplanade's Baybeats alternative music festival has been experimenting with the concept of online-offline integration, whereby select performances in the Esplanade Theatre had a small number of socially distanced

people in the audience who had bought tickets for a backstage tour. For concert promoter 24OWLS, online-offline integration took the form of delivering cocktails to viewers at home, while they enjoyed their ticket online gig series, Flock At The Nest, from the comfort and safety of their homes.

Innovating the event-going experience can also take the form of integrating concert, carnival and convention all under one umbrella. Once again, Big Hit Entertainment has made headway in pioneering this "tour village" concept. BTS' concerts ran concurrently with pop up stores and exhibitions across the cities of Los Angeles, Chicago, London and Paris where they were touring, which attracted over 100,000 visitors in total. These BTS-themed exhibition spaces capitalised on the group's brand image not only to sell merchandise but functioned as creative play spaces and photo spots as well, essentially turning cities into BTS-themed festivals. The possibilities are endless — Big Hit Entertainment plans to use its Weverse app to allow fans to book BTS-themed hotels and make reservations at BTS-

themed cafes in addition to purchasing concert tickets. And if BTS can do it, other artists or events with a strong brand name attached to them can do it too.

Conclusion

All in all, there is huge potential for Singapore to tap into the market for concerts, carnivals and conventions. This does not necessitate a shift in focus from conventional arts events, as they have been and will continue to be mainstays of our homegrown arts culture. Rather, 3C events should be integrated into the robust local arts scene, and both should be devoted equal attention and given room to grow in new, innovative directions.

While the pandemic has brought with it a fair set of challenges for the events industry, it has also pushed artists to think about other ways they can leverage on technology to continue connecting with audiences. Furthermore, being unable to travel overseas has made many Singaporeans more attentive to the local arts scene and yearn for what more it has to offer. To firmly establish itself as a

regional arts hub, I believe that Singapore has to syncretically embrace all different forms of art, and bring conventions, carnivals and concerts under its umbrella.

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Gabriel was a former student from the Humanities Programme in Hwa Chong Institution and is currently studying Law in the University of Cambridge. In between lectures, he enjoys spending his off-days scouting cheap flights to obscure locations in Europe and catching up with friends and family at home. A self-avowed hallyu fan, Gabriel never fails to keep up with the latest Kpop comebacks and catch the next hit Korean drama on Netflix. His 2022 resolution is to finally pick up the Korean language textbook he bought before the pandemic and start working on last year's resolutions.



The Art of Ar(t)chitecture in the Economy

by Chong Yong Qi

Background

Based on a survey conducted by *The Sunday Times* in 2020, 71% of the 1,000 respondents have expressed “artists” as the most non-essential jobs in the 21st century. This sparked a heated argument across the nation about the significance of the Arts. Being a member of my secondary school’s theatre club, a K-pop fanatic and a crazy Netflix binge-watcher, I felt rather uneasy. Do the Arts really mean nothing at all in Singapore? Without the Arts, we wouldn’t be watching *Squid Game*, the *Mona Lisa* would have never existed and Changi Jewel would be gone.

Art exists in many different forms: visual arts, performing arts, literary arts etc. It is a

way of creative expression, storytelling and cultural appreciation. According to the 2015 Singapore Cultural Statistics Report, the arts and culture sector was estimated to have contributed approximately S\$1.6 billion to the economy in value-added terms in 2013 to the nation. The figure is a surge from S\$43 million in 1986 to S\$922 million in 2003. Although these may be mere numbers, this is a testament that the Arts are vital to the economic sector in Singapore.

In this essay, I will look into architecture, a form of art in designing buildings and structures in the context of Singapore. This essay aims to address how architecture is an art form and provide more context about Singapore’s architectural sector. We will then analyse the economic

impacts of architecture and how Covid-19 affected the architectural sector in Singapore. Do note that this essay may not be reflective of all mediums of art and should not be used to measure the economic value of art.

How is Architecture Considered an Art?

As former President of the United States Barack Obama once said during the Pritzker Architecture prize Ceremony Speech in 2011, architecture is about “creating buildings and spaces that inspire us, that help us do our jobs, that bring us together, and that becomes works of art that we can move through and live in at their best. In the end, that is why architecture can be considered the most democratic art forms.” Architecture is an expressive art medium that reflects how we present ourselves across the earth’s landscape. It changes

with styles and cultural adaptations. Not only does architecture provide us with shelter and a space to work, but it also represents human ideals in structures such as government buildings and places of worship.

Architecture in Singapore

Singapore has a reputation for being a “garden city” with the spotless walkways along Gardens by the Bay and the modern skyscrapers that dominate the Central Business District. However, this was not the case in the past. Since its independence in 1965, the country went through significant economic development that caused its transformation from a third-world state to a first-world nation. The architectural sector in Singapore showcases a huge range of styles that is accumulated from different time frames, with structures that have distinctive foreign influences and architectural aesthetics in traditional and contemporary forms. This helps to attract more tourists and investment into the nation, as well as improving

the standards of living for Singaporeans. For this essay, I will focus on three aspects of architecture: shophouses, historical architecture and modern architecture.

Shophouses

Shophouses are a prominent form of architecture in Singapore. A source of nostalgia and joy, these rows of narrow, attractive units play a huge role in Singapore’s rich culture and heritage. Majority of these buildings are low-rise (usually two- to three-storeys high) and built in continuous blocks with common party walls. Each unit is a small terraced house with a sheltered “five-foot” pedestrian way in front. Some of these shophouses described above can be found in the neighbourhoods of Katong and Chinatown. Two key features of shophouses are the timber windows and the roof. The timber windows are designed in the French or Casement style, and some have operable timber shutters to allow for air

and light. The roof is usually of a “pitched” construction on a timber structural frame and laid with natural coloured, unglazed V-profile terracotta roof tiles.

Shophouses depict a mixture of different styles. Depending on when they are built, they display a range of architectural influences. Most shophouses are constructed between the 1840s and the 1960s and they formed the majority of the pre-World War 2 urban fabric of Singapore. For instance, the austere elegance of the Second Transitional Style eschewed rich detailing and tiling for sleek columns and arches. Shophouses are also a great blend of cultural influences with an eclectic mix of Chinese, Malay and European elements.

Historical Structures

In the 1960s and 70s, the sight of wooden kampongs with roofs made up of attap leaves (they catch fire easily) and jetties serve as a testament to

Two key features of shophouses are the timber windows and the roof.

Singapore's humble origins as a fishing village. Structures made of bricks and concrete were then introduced during the British colonial rule, which led to some of the nation's most iconic buildings up till today. Despite Singapore's huge transformation into an urban hub, some of these historical structures are still standing. Here are three examples of historical structures in Singapore:

National Gallery Singapore (Formerly known as The Old Supreme Court)

Located in the heart of the Central Business District, The Old Supreme Court in St Andrew's Road is an architectural landmark that dates back to 1939. After a 10-year renovation, the building has been repurposed as the National Gallery Singapore. Reflecting Singapore's unique heritage and geographical location, it serves as a dominant visual arts institution which contains the world's largest public collection of Singapore and Southeast Asian modern art. Designed by Lord Norman Foster in 2005, this S\$208 million building has



been beautifully restored and transformed into this vibrant 64,000 square-metre arts centre. The city-hall chamber is where some of Singapore's key events in history occur, such as the inauguration of Singapore's first president, Yusof Ishak.

Inside the building, there are two-linked bridges in the atrium. A distinctive metal and glass canopy are used to construct the bridge, which is supported by tree-like columns. More than 15,000 glass and aluminium panels were used to build and form the roof and veil of the Gallery, resulting in an ethereal feel when natural light floods in. In the past, there was a caged passageway which

consisted of an unseen network of long and narrow corridors under the courtrooms. This is where defendants in criminal cases were brought in for their court appearances away from the spotlight of the public. Another significant feature of this Gallery's architecture is the distinctive dome that sits on top. Originally copper in colour, it became green over time because of oxidation from the surrounding air.

Raffles Hotel Singapore

Home to the world-famous cocktail the Singapore Sling, Raffles Hotel Singapore serves as a heritage icon in the country

till today. Named after Sir Stamford Raffles, the founder of Singapore, the hotel was built by the Sarkies Brothers. Despite Raffles Hotel Singapore opening in 1887, its layout still evolves.

Using neo-Renaissance architecture, tropical touches like high ceilings and extensive verandahs were added. It includes a dining room with a marble floor, electric lights and powered ceiling fans. With icons such as Charlie Chaplin and Queen Elizabeth II who stayed there, Raffles Hotel Singapore is one of the most famous hotels ever built in the island. In 1989, a facelift was restored it to the height of its glory. An original cast-iron portico and a timber staircase were reinstated

and decorative plasterwork being meticulously repaired. Eventually, all the rooms in the hotel were renovated to become suites with teakwood floors and handmade carpets. With its storied elegance, compelling history and astounding guest list, it continues to draw travellers from all parts of the world.

Hong San See

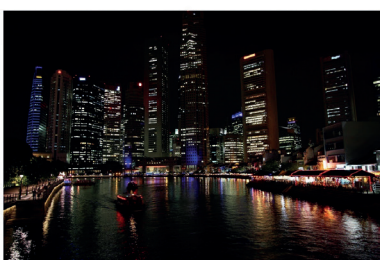
Constructed between 1908 and 1913, the Hong San See temple was established by the Hokkien community in Singapore. The name “Hong San See” means “Temple on Phoenix Hill” in Chinese. Although this structure is now surrounded by many modern, high-rise buildings,

this temple used to overlook the sea. It even become the first Singapore building to win an Award of Excellence in the 2010 UNESCO Asia-Pacific Heritage Awards for Cultural Heritage Conservation.

Its beautifully preserved form is an example of southern Chinese-style temple architecture. The axial planning, courtyards, and beam-frame structure are some traditional features of this southern Chinese-style. Another key feature is the granite columns that are exquisitely carved with dragons, peonies and phoenixes. The *chien nien* (also known as the art of creating figures from porcelain in Chinese) ornamentation and intricate plaster relief work on the eaves and roof showing the two dragons “moving” with a pearl are traits that make the temple so unique.

Modern Structures

In present day, Singapore comprises of many different contemporary buildings that make the city skyline so beautiful. From the ground-breaking Changi Jewel to the Interlace residential apartments, these futuristic,



high-rise buildings give Singapore's urban landscape a distinctive identity. Below are three examples of modern structures in our nation:

Marina Bay Sands Hotel

The Marina Bay Sands Hotel is a 155,000 square-metre integrated resort, which comprises a hotel, convention centre, theatre, museum, event plaza, celebrity restaurants and shops. Designed by award-winning architect Moshe Safdie, this building has three sloping towers soaring 194 metres from the ground, and linked at the top by the expansive SkyPark. This landmark has also been featured in Hollywood films such as *Crazy Rich Asians*. The park includes a 360-degree view for visitors to get a breathtaking view of the city's skyline. Some amenities of the hotel include lush gardens and an infinity swimming pool (the pool happens to be the world's largest public cantilevered space).

Henderson Waves Bridge

The Henderson Waves bridge is the highest pedestrian bridge in Singapore at 36 metres above ground level. When

The Henderson Waves bridge is the highest pedestrian bridge in Singapore at 36 metres above ground level.

the bridge was completed in 2008, its shape and lush green belt has made a mark in southern Singapore. Similar to its name, the bridge resembles the undulating shape of a wave, which curves and twists along its entire 274-metre length. To form the "ribs" of the bridge, steel arches are anchored and filled in with curved slats of Balau wood. Balau wood is a dense hardwood used in heavy construction which is found only in Southeast Asia.

Besides the rich variety of flora and fauna, the bridge's shape allows it to have hidden recesses and shell-like niches, where pedestrians can admire the stunning views of the island. Thus, the bridge is a popular spot for joggers and families.

Lasalle College of the Arts

A public-funded arts institution, the LASALLE College of the Arts is designed by local architects. The seven-

storey-high campus is a creative way of utilising space. From the outside, the building is made up of black monolithic stone and aluminium, as well as irregularly-shaped windows. Unlike its exterior, the buildings are graphic with faceted glass walls and individual panels framed in black, each tilting at different angles.

The design was inspired by geology used in our daily lives. To evoke a natural landscape, a cluster of sculpted blocks, multiple linking corridors and sky bridges are built around a central space that conjures the image of a deep canyon. This creates a dynamic atmosphere of movement and energy by allowing natural light and air to circulate around the buildings. Thus, it is not surprising that this masterpiece has gained worldwide attention. It even represented Singapore in the architectural section of the Venice Biennale in 2004 and has continued to win more

awards such as the 9th Singapore Institute of Architect's Design Awards.

Economic Impact of Architecture

Tourism

Architecture is used as a basic instrument to stimulate tourism development in our nation. In Singapore where there are too few natural or historical attractions, there is a need to build remarkable, man-made structures designed by famous architects to build new tourism destinations. This attracts huge crowds of tourists which helps to increase the income of the place. In addition, iconic landmarks can encourage investments in the local architecture sector. With the government allocating a large budget to build infrastructure, it motivates architects to enter the Singaporean architecture market for commercial buildings and recreational areas.

In 2018, a total of 18.5 million international visitors

came to Singapore. This is a 6.22% increase in numbers in comparison to 2017, when 17.4 million tourists travelled to our nation. These international visitors spend a total of S\$27.1 billion in Singapore in 2018. One example would be the Gardens by the Bay nature park, which recorded 10.2 million visitors in the 2017-2018 year. The Marina Bay Sands Hotel has a 96.7% occupancy rate and contributed US\$3.069 billion in net revenues in 2018. In addition, the S\$1.7 billion Jewel Changi Airport which opened in 2019 saw more transit passengers clear immigration just to see the world's tallest indoor waterfall inside.

For a long period of time, historic architecture provides a significant source of revenue for the tourism sector. Many people travel to different countries to see structures that contain a rich history. In present day, these culturally-rich cities must redevelop so that there are new attractions to cater to the masses of tourists visiting annually. One way

to do so is to perhaps create a new and prominent tourist destination that eventually becomes a must-visit attraction for tourists.

Boost economic growth

The architecture sector helps to increase economic growth in Singapore. According to an article published by Our World in Data, economic growth is defined as the goods and services that we all need are not just there, they need to be produced. Growth means that their quality and quantity increase. A vibrant architecture scene is vital to enhance the attractiveness of Singapore to global talent and businesses. A 2001 survey commissioned by the Economic Development Board (EDB) to study the quality of life for foreign talent based abroad and in Singapore showed that the Singapore arts and culture scene needs to be more vibrant in order to attract more talent here. Foreign talent is necessary to increase the diversity and skills needed in

For a long period of time, historic architecture provides a significant source of revenue for the tourism sector.

our workforce. This increases the productivity and efficiency in the workforce, which will boost Singapore's economic growth.

To add on, economists agree that the quality of human capital enjoyed by any enterprise is very closely related to the potential for economic growth. The function of the structure in attracting a highly educated population with the skills and training needed to meet the demands of existing and new businesses that depend on such capital is well documented.

In terms of economic outcomes, the gross domestic product (GDP) is our indicator used for this essay. GDP is defined as the total value of final goods and services produced within geographical boundaries of a country. Nominal GDP refers to the total value of final goods and services produced within the geographical boundaries of a country over a period of time, measured based on current prices. The nominal value-added from the construction of architecture has been rising over the years. It stood at S\$18.49 billion in 2019, an increase from S\$14.84 billion in 2011. This has led to

The spaces that we design and build can make a huge impact on the way we live, from improving our mood to our performance at work.

a contribution of 8.4% to GDP from 2011 to 2019.

Improve standard of living

Standard of living is defined as the wellbeing of the average resident in a country, including both material and non-material aspects. Material standard of living refers to the quantity and quality of goods and services available to the average resident for consumption, while non-material standard of living refers to the quality of life in relatively more intangible terms.

The spaces that we design and build can make a huge impact on the way we live, from improving our mood to our performance at work. Besides providing the basic functionality of the structure, good architecture enhances our quality of life with the right blend of aesthetics and design. It helps to attract and build

human capital by providing environments that lift our spirits, as well as to engage and empower communities to achieve their maximum potential, improving the material standards of living for people as there are better quality of services received by people.

The relationship between good design and good business is a symbiotic relationship. For instance, a well-designed workplace provides employees with an abundance of daylight, breath-taking views, and socially engaging work spaces that promote collaboration brings significant positive benefits to productivity and creative output. This can reduce stress levels in the workplace, improving non-material standards of living. This benefits workers, business and the community in which they work.

Good architecture considers the functional needs



of the space and helps improve the activities that are going to occur there via a well-planned layout. This significantly improves how people feel when they use the area. In addition, good architecture enhances accessibility by considering the needs of users who may have reduced mobility, improving their experience of a building. One example of good architecture is by incorporating green spaces, such as gardens, into the overall design. Research has proven that spending more time in nature can help improve mental health and positively impact people's moods.

Lastly, an aesthetically-pleasing structure invites people in and makes them want to spend time inside, in contrast to feeling confined

or crowded. Colours and the geometric proportions and patterns used in an area create an atmosphere that inspires and calms people.

Impact of Covid-19

However, I do acknowledge that with the ongoing Covid-19 pandemic, the architecture sector in Singapore has been significantly affected. During the Circuit Break period, more than two-thirds of the architecture projects were severely hit at first. Projects became cancelled and sites were closed down. People were forced to work from home. To make matters worse, a large group of architecture companies saw reduced cash flows, increased expenses and

unrecoverable outlays.

Nonetheless, there is still hope. When Deputy Prime Minister Heng Swee Keat unveiled the Supplementary Budget in Parliament in 2020, he mentioned that the government is setting aside a further S\$48.4 billion to support businesses, workers and families as Singapore copes with the unprecedented pandemic. This is in addition to the S\$6.4 billion in measures that was previously announced to minimise the impact from the crisis. During tough times, architectural firms can adopt and advocate new ideas too. Some potential projects to take note of include offices that can be re-designed to adapt to the pandemic. Indeed, innovative designs will keep emerging, which showcases the richness and diversity the Singapore architecture industry has in problem-solving and innovative thinking.

My Final Thoughts

Overall, the architectural sector is important to Singapore because it makes meaningful contributions to society beyond economic indicators. Architecture is a

unique form of art because it is an expressive platform that allows us to be innovative and showcases our ideas on a geographical landscape. Architecture encapsulates a huge part of Singapore's origins and history, forms a diverse range of structures that depicts different cultures and is of intrinsic value to Singaporeans of all walks of life. Through these places, we are able to create fond memories and make our daily lives more vibrant.

Yet, the architectural industry provides many economic benefits such as attracting more international visitors into our country, boosting economic growth and improving our quality of living for Singaporeans. Architecture helps to build financial capital by putting it to work constructing assets that are not only beautiful and inspiring but are also durable and adaptable enough to retain their value over a long time.

With greater awareness and appreciation for architecture over the years, there is no doubt that architecture is crucial to build Singapore's past, present and future.

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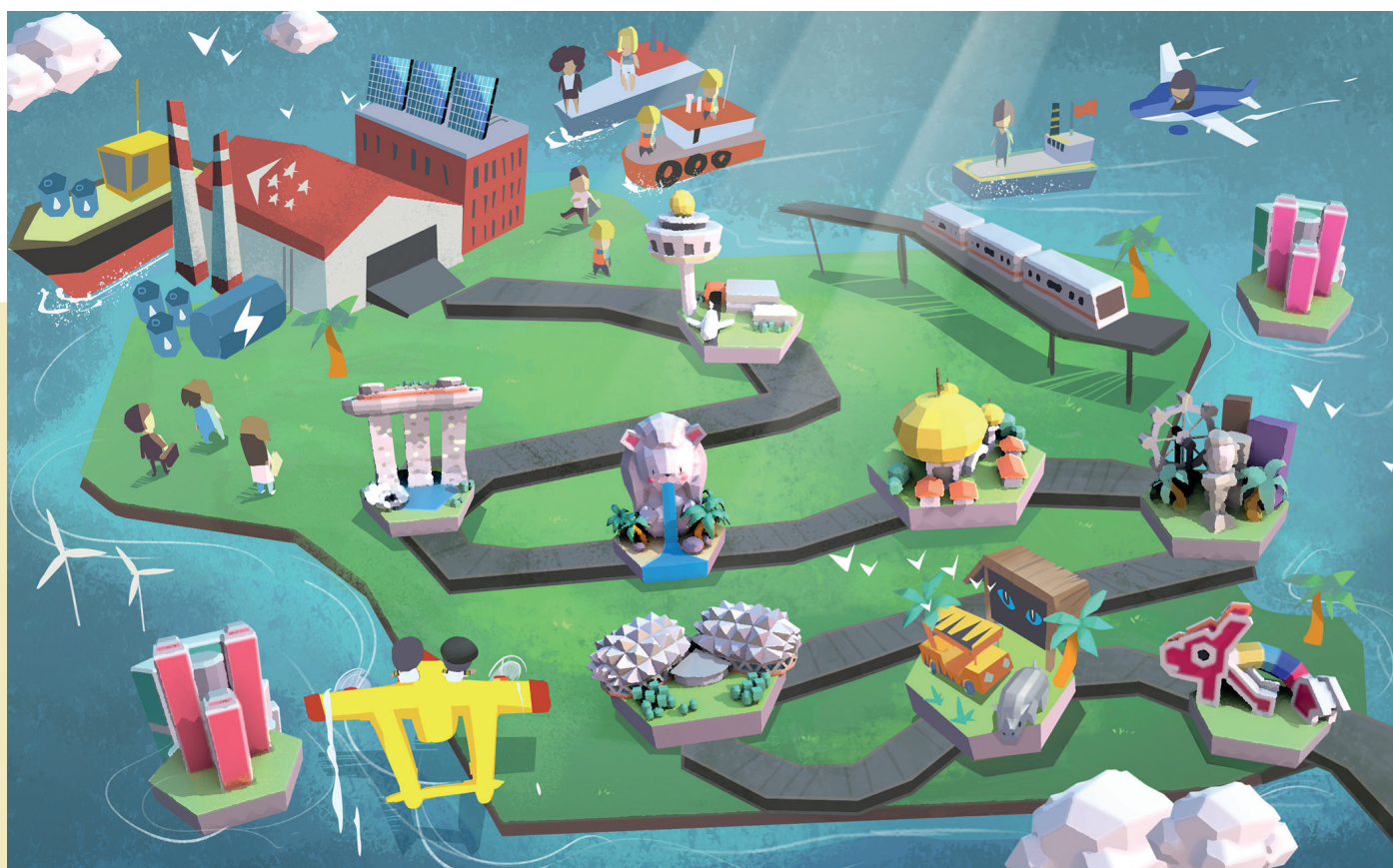
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Yong Qi is currently studying in Hwa Chong Junior College. While she is interested in the social sciences, she is also drawn to the systems of city life. With prior experience in her secondary school's theatre club, Yong Qi has a soft spot for musicals. Outside of the classroom, Yong Qi enjoys watching Korean dramas and Formula 1 racing. She as a coffee enthusiast relies on her school's canteen drink stall to fuel her caffeine needs. She is a fanatic of spicy food and runs a food account on Instagram too.

Singapore

— A Cultural Metropolis

by **Tan Eng Khoon**

In this infographic, the artist presents his vision of how an input-light model generating culturally-rich services can augment the vibrancy and resiliency of Singapore's economy.

Input-wise, cultural sectors are less reliant on imported raw materials (especially energy) compared to other manufacturing industries such as electronics and petrochemicals. For example, 2019 estimates by the Energy Market Authority show that industrial activities account for 42.5% of electricity consumption and 89.1% of natural gas consumption, while other sectors (including cultural attractions) account for a mere 0.5% (electricity consumption) and 0.3% (natural

gas consumption) respectively. This helps to improve the resiliency of the Singapore economy against external supply shocks, especially disruptions to oil supply due to regional unrest.

Nonetheless, Singapore's cultural sector cannot exist in isolation. Neither can it be a self-sustaining ecosystem. To maintain the vibrancy of this sector, inputs in the form of talent and ideas are necessary. For example, Singapore has a Foreign Artistic Talent Scheme (ForArts) which considers individuals' professional experience and achievements and their ability to advance the arts and cultural scene in Singapore in their PR application. Other than foreign

With a sense of rootedness and a distinct Singapore identity, Singaporeans are more likely to stand together to strive for the betterment of their common future, especially in the face of global headwinds such as the rise of populism in other geographies.

talent, migrant workers have also demonstrated their ability to add on to the dynamism of Singapore's cultural scene. For example, Filipino domestic helper Angela Barotia won the Best Actress Certificate of Outstanding Achievement at the 2016 Brooklyn Film Festival for her lead role in a local feature film *Remittance* about her experience of working as a maid in Singapore. Construction worker S. Rahman Liton's use of the nucleus poem (a Bengali form of writing) was also adopted as a prompt in the Singapore Poetry Writing Month in 2017.

In output-terms, the value of Singapore's cultural industry can be traced to a few sources. With annual tourism receipts exceeding \$20 billion in recent years, tourist arrivals in Singapore have been on the climb. Other than the growth of the Chinese market, the rise in visitor arrival and spending can be traced to the enduring draw of local attractions such as the Night Safari and Singapore's iconic statue at the Merlion Park. The sweeping views from the Merlion Park across Marina Bay also give tourists an overall perspective of Singapore's impression skyline. They are punctuated by landmarks such as Marina Bay Sands (MBS) and the Esplanade, which have gone beyond being architectural icons to taking up stewardship of Singapore's cultural scene. Other than being home to the performing arts in Singapore, larger venues like MBS serve as popular MICE (meetings, incentives, conventions and exhibitions) destinations, which helps to provide the constant stream of visitors — an important source of sustenance for Singapore's arts scene.

Beyond iconic cultural sites, Singapore's intangible cultural heritage clearly appeals to visitors. For example, our hawker culture which serves as a melting pot of local and regional cuisines have remained a top draw among tourists. While impressive religious buildings like Sultan Mosque is a key destination for tourists visiting the historic Kampong Glam district, more importantly, the religious freedom, diversity and harmony existing in Singapore remains an invisible but important draw for tourists and expats who feel safe practising their religion in Singapore. At a more indigenous level, Singapore's cultural heritage, including the traditional dragon playground preserves a sense of nostalgia and belonging amidst a fast-changing globalised world. With a sense of rootedness and a distinct Singapore identity, Singaporeans are more likely to stand together to strive for the betterment of their common future, especially in the face of global headwinds such as the rise of populism in other geographies.

Finally, Changi Airport, which serves as a gateway connecting Singapore and the rest of the world, has incorporated arts and cultural elements into its architecture and exhibits. From hand-drawn wall murals depicting snippets of life in olden time Singapore to kinetic art installations in arrival and departure halls, these showcases help to define Singapore and leave a lasting impression on visitors or departing Singaporeans, who would no doubt be keen to return for more sensorial experiences.

Eng Khoon is a freelance artist who previously worked in the industry as a concept designer and a visual development artist. He was also the co-founder of a game company. Eng Khoon has a passion for designing and creating story-based content, and a desire to see more locally created content to gain commercial success as well as international recognition.



Photo credit: Courtesy of Giraffe Pictures

Filmmaking in the New Economy

An Interview with Anthony Chen

The new economy presents challenges and opportunities for industries in Singapore. Filmmaking is no exception. To understand what lies ahead for filmmaking, *Economics & Society* interviewed **Anthony Chen**, an award-winning Singaporean film director, screenwriter and producer.

An alumnus of The Chinese High School (now Hwa Chong Institution), Ngee Ann Polytechnic's School of Film and Media Studies and the prestigious National Film and Television School in the UK, Anthony Chen is a highly accomplished film director. In 2013, Anthony made history by becoming the first Singaporean to win the coveted Camera d'Or at the Cannes Film Festival, then Best Feature Film, Best New Director and Best Original Screenplay at the 50th Golden Horse Awards. His films have received multiple awards and accolades from some of the most distinguished film festivals and events internationally.

Anthony is no stranger to economists. His wife Rachel Yan, holds a MSc in Economics and PhD in Statistics from the London School of Economics and Political Science. *Economics & Society* caught up with him.

What do you think is the value of filmmaking to the society?

Filmmaking is about storytelling. And storytelling is one of our most basic human instincts that we have passed down through the ages; from cave paintings to oral tradition, from Greek drama to television. This is the first and foremost way we express ourselves as a civilisation, through stories. Filmmaking like other forms of art and humanities helps us communicate and form connections with one another. No man is an island and societies exist through communication and connectivity. I cannot imagine a world without any stories. That will be very tragic. It is therefore so vital that we defend the humanities — cinema, literature, all of it.

Cinema is very much a reflection of life and our human condition. It can be like a mirror, forcing us to look at the best and worst of ourselves as we discover our shared human existence. Sometimes, films help us find common ground with one another, the same reason why we can all be moved to tears at the same moment watching a certain scene on the big screen, in a dark room amongst strangers. It was a surprise for me when my first feature film *Ilo Ilo* was received so well internationally. Despite it being a very Singaporean story, the themes in the film of migration, family, class, growing up and economic crisis, seem to break down all borders, striking a huge chord with audiences as far as China, India, France and even Mongolia. Our society isn't one made up of just economic transactions, but also emotional ones. And cinema is a medium that helps join those dots.

How do you think automation and big data in the new economy will disrupt filmmaking?

Automation will not replace filmmaking. Every film has its own unique personality and identity, crafted by filmmakers through their own authorship and voice. Each story is different. While automation can help in the technical aspects, it can never replace the human touch, an individual's creative mind.

Nonetheless, big data is a danger for the Arts if gatekeepers and commissioners look at data to decide what should get made. It would mean the works, stories and

aesthetics will become more repetitive and more homogenous. There will be little room for creativity. Suppose there is a new idea that is a genius in the making, so amazing that it will break new ground and take the world by storm, but because it has never been done before, it will probably be rejected by the so-called algorithms of big data,

Indeed, my worry is that there will be less choice and diversity of content even though the platforms keep selling the idea of more diversity and that consumer becomes king. If everything is decided through mining data, this could be great for certain sectors in the world, but it will be devastating for film and arts. The Arts is about auteurs and their unique ideas. It is about surprise and subversion.

Already not too long ago, we have seen the market leader of platforms, Netflix, loses a significant amount of subscribers in its recent reporting, causing a huge dip in its share price. This might serve as a due warning to both commissioners and creators, that audiences do not just want rehashed, generic and mediocre content.

I think both the traditional Hollywood studios and platforms have a considerable responsibility to be tastemakers, elevating and cultivating audience taste and sensibilities. I might be an idealist, but I always try to be cautiously optimistic.

What are the key challenges for the film industry in the new economy?

Platforms have disrupted the film industry in the past decade and still continue to do so. Companies such as Netflix, Amazon, Disney Plus and Apple TV have changed the entire model of how things are being done in the industry. Firstly, they use a different pricing strategy, selling subscriptions instead of individual shows.

I think both the traditional Hollywood studios and platforms have a considerable responsibility to be tastemakers, elevating and cultivating audience taste and sensibilities.

The objective is to make sure that one is hooked on their offerings, so that one continues to pay the subscription fees. In addition, they provide great convenience such that people will rather stay at home, rather than go out to the cinemas.

The other challenge is the proliferation of short content on platforms such as TikTok and YouTube that is taking time away from the younger generation. The traditional long-form 120-minute feature film now has to compete with 60 two- to three-minute long gag videos. This has been

especially felt during the pandemic when everyone has turned to their devices while confined in their homes as cinemas stayed shut. However, recent box office numbers across the world have shown the return of audience numbers to the cinemas. That is very encouraging for the industry. I personally still strongly believe in the power and magic of the big screen.

As global platforms gain prominence, they will cater to the needs of the biggest populations in the world. Netflix, for example, has made key strategic investments in Korea and Latin America, but scarcely in smaller countries such as Singapore. It is hence imperative for both the government and public at large of smaller populations such as Singapore to continue supporting and investing in local talent and content. Singapore films help capture our unique cultural identity and shared experience. If we don't tell Singapore stories, no one else will tell it for us.

It is hence imperative for both the government and public at large of smaller populations such as Singapore to continue supporting and investing in local talent and content.

Talking about Singapore, how has the art scene changed in Singapore?

What is interesting is that the landscape has changed. There is less stigma as compared to 10 years ago. Parents are more supportive of their children pursuing the Arts. There is a more vibrant arts scene and more consumption in the Arts. At some point, when society has come of age economically, what it needs is more cerebral. That's great news.

Worldwide studies have shown a direct correlation between education levels and literacy of the Arts. Nonetheless, despite Singapore's high level of education, I believe that it has not quite translated across the broader spectrum of society. We still have long way to go in terms of cultural literacy.

In my field of cinema, it has been an amazing decade for Singapore cinema and I cannot be prouder to be part of a generation of new wave Singapore filmmakers. Together with Boo Junfeng, Kirsten Tan, K. Rajagopal, Yeo Siew Hua and others, I

think this current generation of filmmakers is putting Singapore on the world map through their cinema. Collectively, the films have screened at the world's top film festivals such as Cannes, Sundance, Locarno and the thoughtfulness and quality of the filmmaking has grown from strength to strength. Fuelled by their burning desires to explore the world through the lens of filmmaking, this generation of artists has been telling compelling stories and asking provocative questions about important societal issues through their craft.

Thank you for sharing your thoughts with us. Do you have anything else to tell our readers?

Yes. Support local films! A lot of people feel that growing the film industry in Singapore and Singapore cinema is the responsibility of the film community and industry. But this is not true. Everyone should realise that we are a small country, and it takes an entire nation to build a national cinema together.

When I mean support, it does not just refer to being an audience. That ultimately is important to make filmmaking sustainable (And I do mean buying a ticket to films beyond just Jack Neo films, take a chance and perhaps you might inform your perspective in varying ways). But there are many other ways. Investing in Singapore films through the private sector, facilitating film production and shoots



Everyone should realise that we are a small country, and it takes an entire nation to build a national cinema together.

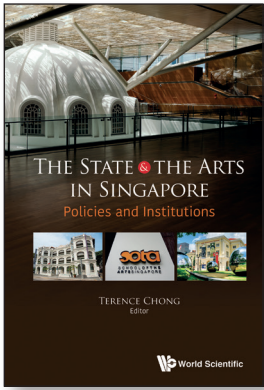


when assistance is required. For instance, not turning your back and closing the door on us when we seek locations for filming. Filming in Singapore can be terribly bureaucratic and challenging to manage, and most independent films do not have the physical and financial resources to deal with that.

There is so much talent on our little island and we should all do more to support Singapore film. With the right support, Singapore cinema will continue to break new ground and soar to greater heights.

One reason why South Korea's film industry is booming (look at the success of Oscar-winning *Parasite*) is very much due to the strong support by the Korean people. It takes so many years of support from the ground up to get to where they are today. Their success is not due to just talented actors and funding; it is very much due to the nation's concerted effort to export their culture through such mediums. In other words, it takes the will of a nation to achieve what the South Koreans have achieved internationally.

If there is no support for us filmmakers, there will be no more Singapore films. And this is a pity. We need to change our perspective of cinema and see it not merely as entertainment, but as a means of showcasing our nation and its unique culture to the world.



The State and the Arts in Singapore

Policies and Institutions

Edited by: **Terence Chong** (*ISEAS-Yusof Ishak Institute, Singapore*)

This book covers Singapore's key arts policies and art institutions which have shaped the cultural landscape of the country from the 1950s to the present.

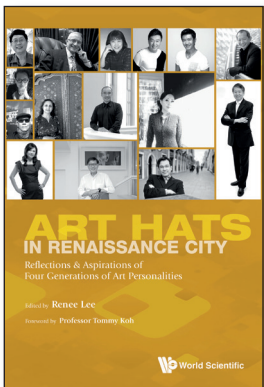
The scholars and experts in this volume critically assess arts policies and arts institutions to collectively provide an overview of how arts and culture have been deployed by the state. The chapters are arranged chronologically to cover milestone events from the forging of 'Malayan culture'; the government's 'anti-yellow culture' campaign; the use of 'culture' for tourism; the setting up of the Advisory Council on Arts and Culture, the Renaissance City Report, the setting up of the School of the Arts, and others.

Putting to rest the notion that Singapore is a 'cultural desert', this volume is valuable reading for students of cultural policy, policy makers who seek an understanding of Singapore's cultural trajectory, and for international readers interested in Singapore's arts and cultural policy.

568pp | Aug 2018

978-981-3236-88-2

Published by **World Scientific**



Art Hats in Renaissance City

Reflections & Aspirations of Four Generations of Art Personalities

Edited by: **Lee Renee Foong Ling** (*Nanyang Academy of Fine Arts, Singapore*)

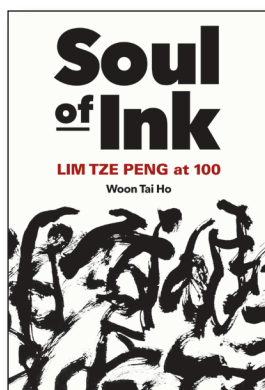
Art Hats in Renaissance City is an anthology of the personal reflections and aspirations of four generations in the new ecostructure in Singapore, from those who help formulate policies to that of the individual artists, who have helped develop and build an exciting arts and cultural scene from scratch and into a viable economic model. As evidenced by the professions featured in this anthology, the scope of work within the creative and cultural industries is diverse, from backgrounds such as history, communications, management, economics, law, science, art, psychology and entertainment.

Beyond theory, the anthology offers an authentic voice of real and lived experiences of the go-to people, their personal role in heritage development, and their thoughts and insights on our, albeit developing, art scene since Singapore's independence.

360pp | Mar 2015

978-981-4630-77-1

Published by **World Scientific**



Soul of Ink

Lim Tze Peng at 100

By Tai Ho Woon

"I first met Mr Lim at the Chung Cheng High School 80th Anniversary celebration in 2019. He showed me the huge artwork hung on the school wall, a cross between a calligraphy of Man Jiang Hong 《满江红》 (The River Runs Red) and a painting. I am very simple when it comes to art appreciation, and that piece of work managed to evoke a sense of awe in me. I visited Mr Lim's studio later, and spoke with him at length about his work. What amazed and impressed me most was his young mind. He has made a conscious effort to reinvent his artwork over and over again, and you can see how his style has evolved over the decades. Something he said is etched in my mind, 'I can't sleep well at night sometimes, because I am thinking through how to paint what I have in mind.' Mr Lim is a true lifelong learner, artist and gentleman."

Mr Ong Ye Kung

Then Minister for Transport

Chairman, Chinese Development Assistance Council

Then Board Member, Monetary Authority of Singapore

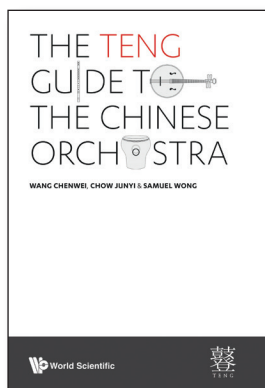
MP Sembawang GRC

Soul of Ink: Lim Tze Peng at 100 pays tribute to the remarkable achievement of artistic renaissance at 100. It traces the lean beginnings of Lim Tze Peng's early years, relives the times of controversy over the artist's innovations in Chinese calligraphy, and celebrates his breakthroughs. Throughout the book, attention is paid to Lim Tze Peng the man, the foundation of everything that is admirable about Lim Tze Peng the artist. It looks at the man behind the art, and how art has given life to him and his family.

260pp | Jun 2021

978-981-123-702-7

Published by World Scientific



The TENG Guide to the Chinese Orchestra

By **Chenwei Wang** (*The TENG Company, Singapore*), **Junyi Chow** (*The TENG Company, Singapore*), **Samuel Wong** (*The TENG Company, Singapore*)

"This is arguably the first and most comprehensive monograph about Chinese instruments and their orchestration to be published in English. I am awestruck by these young musicians' dedication towards promoting the Chinese orchestra globally, and am confident that this publication will open doors to another world of music!"

Liu Sha

Resident Conductor, China National Traditional Orchestra

Music Director, Macao Chinese Orchestra

The TENG Guide to the Chinese Orchestra is a seminal guide to equip composers, scholars and music enthusiasts worldwide with the necessary knowledge to work with Chinese musical instruments. The INSTRUMENTATION section outlines the history, physical attributes and performance techniques of Chinese musical instruments in detail. It also includes practical scoring advice for composers and reference charts for fingerings and chords. The ORCHESTRATION section contains systematic analyses of score excerpts from Chinese orchestra pieces spanning the last 60 years to demonstrate how Chinese musical instruments work together in an orchestra.

624pp | Jun 2019

978-981-3233-64-5

Published by World Scientific

FROM SINGAPORE PRIVATE LIMITED, TO SINGAPORE VIRTUALLY UNLIMITED.

Economic Drivers in a Post-Covid World

by **Jeremy Tan Meng Jin** and **Tham Hsien Hui, Philip**
Anglo-Chinese School (Independent)



ABSTRACT

Covid-19 is arguably the most disruptive event of this generation. The pandemic will undeniably create profound, long-lasting change extending across the politics, economy and society. These changes threaten to render obsolete the formula that Singapore has hitherto relied on for success. Yet, they offer Singapore new opportunities as well. Hence, there is a dire need to, first, correctly identify key economic drivers in the post-Covid context, and second, determine how best Singapore can harness these trends to ensure the people's wellbeing.

In this vein, we posit that the three key drivers that will shape the post-Covid world will be the processes of recontextualising globalisation, reconfiguring economies and reimagining the social contract. Overall, a broad-based paradigm shift away from efficiency to resilience will enable Singapore to capitalise on these drivers.

In **Chapter II**, we show how Covid might rewire globalisation into regionalisation by exposing the fragility of “hyper-globalisation”. **Annex A** illustrates

the interconnectedness of global supply chains. Singapore's imperative, then, is to remain at the centre of the regional system and at the crossroads of different regional systems.

In **Chapter III**, we propose that Covid will reconfigure the structure of the economy. First, it will accelerate digital transformation. Second, it will trigger a fundamental re-evaluation of our conception of value, particularly with respect to essential workers, the green economy and the prioritisation of resilience over efficiency. In both cases, private sector innovation, coupled with government regulation, assistance and direction are needed to make the best of this reconfiguration, as elaborated upon in **Annex B**.

In **Chapter IV**, we note that Covid-induced socio-economic inequality will likely strain the social fabric in Singapore. By calibrating existing social schemes and evolving the tripartite dynamic, Singapore can build a more resilient social compact. **Annex C** demonstrates how these proposals might be manifested in Singapore.



CHAPTER I INTRODUCTION

The Covid-19 pandemic is unprecedented in its global magnitude. Starting in Wuhan, China, the virus would go on to infect more than 200 million people across more than 150 countries outside Asia, causing over 4 million deaths.¹ The initial international public health emergency has evolved into a multi-faceted crisis with wide-ranging ramifications.

Singapore has not been immune to the crisis. Initially limited in its spread, the ubiquity of entry points and adaptive nature of the virus has caused multiple resurgences, forcing repeated lockdowns and extended Safe Management Measures. In particular, the global economic downturn has been harsh on



Fig 1. 2021 World Press Photo of the Year, depicting an 85 year old woman being embraced by a nurse²

Singapore's trade-dependent economy. Although the immediate impacts of the crisis may fade, such an epochal event will leave permanent changes in its wake. By following the repercussions of this upheaval from external events in the region through internal economic and social policy, we can elucidate the direction Singapore should take amidst the overarching transition from efficiency to resilience that forms the bedrock of the post-Covid world.

1.1 Post-Covid Economic Drivers

Properly harnessed, these drivers can transform our economy from *Singapore private limited*, to *Singapore virtually unlimited*

Recontextualising Globalisation

Covid-19 has disrupted supply chains and unveiled unhealthy, systemic over-dependence, prompting a shift away from *globalisation* towards *regionalisation*.

Singapore should double down efforts to position itself in the centre and at the crossroads of regional systems.

Reconfiguring Economies

The experience of the pandemic will likely cause the economy to experience *accelerating digitalisation* and *a reconceptualisation of value*.

Private sector innovation, as well as government regulation, assistance and direction, are needed to channel these trends into economic growth.

Reimagining the Social Contract

Covid-19 has *widened the socio-economic divide*, disproportionately affecting not only the low-income group, but also the middle class.

¹ How Covid-19 is Spreading Across the World (6 Sep 2021). The Straits Times. <https://www.straitstimes.com/multimedia/graphics/2020/02/coronavirus-global-numbers/index.html>

² The First Embrace. Mads Nissen (2020). Politiken/Panos Pictures.

At the same time, Covid-19 has revealed *tensions in the tripartite dynamic* between government, businesses and the people.

Going forward, Singapore can *calibrate/repurpose existing social schemes* and *evolve the tripartite dynamic* to build a more resilient economy and society.

CHAPTER II RECONTEXTUALISING GLOBALISATION

“Wave goodbye to the greatest era of globalisation.”
The Economist, 2020³

Bereft of natural resources or a sizable consumer base, Singapore relies upon globalisation⁴ to make the global marketplace its hinterland.

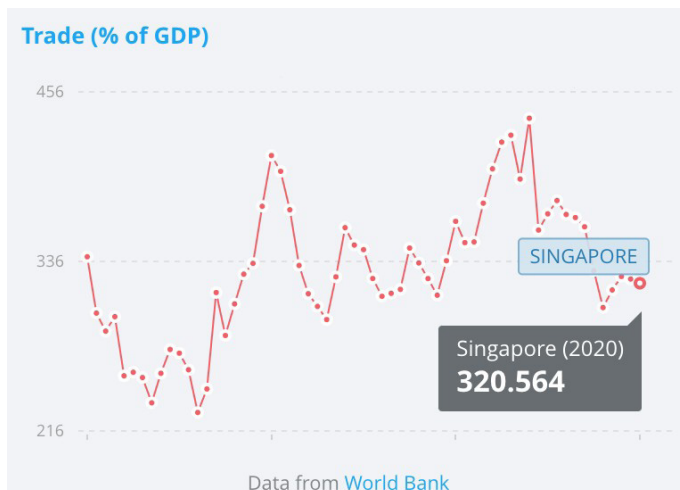


Fig 2. One of the highest in the world — trade as a % of Singapore’s GDP, from 1965 to end-2020⁵

Covid-19 has upset globalisation by disrupting supply chains and surfacing unhealthy overdependence. More significantly, it has made clear to policy-makers world-wide that globalisation cannot continue as it did before. This chapter explains how Covid-19 has prompted a shift away from efficiency-based “hyper-globalisation”⁶ towards resilience-oriented regionalisation, and how Singapore can keep abreast of these developments to remain a key global player.

2.1 Globalisation Under Threat

Covid-19 jammed the brakes on the wave of hyper-globalisation ongoing since the 1990s.⁷ Across most of the world, global trade nosedived as a result of policies like lockdowns and cross-border travel restrictions.

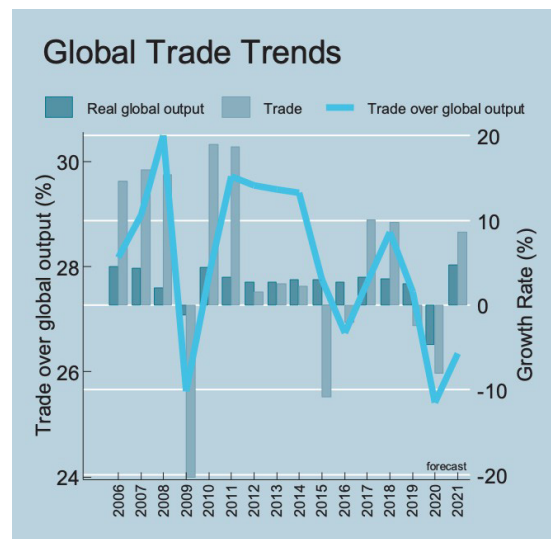


Fig 3. Trade as a % of total global output has nosedived to the level of the 2008 Financial Crisis⁸

³ The Economist (16 May 2020).

⁴ Globalisation is defined as “the process through which the free flow of ideas, people, goods, services and capital leads to the integration of economies and societies” by the International Monetary Fund.

⁵ Trade (% of GDP) - Singapore, Ireland, Belgium, United Kingdom, China, United States (2020). World Bank Data. <https://data.worldbank.org/>

⁶ Hyper-globalisation is a concept first conceptualised by Dani Rodrik, a Harvard economics professor. It refers to the unfettered pace of capitalism aimed at eliminating all transaction costs and unlimited economic integration beyond national borders that occurred in parallel with the founding of the World Trade Organisation in 1995 until the present day. An important corollary of the imperative of reducing all frictional transaction costs to enervise global trade is the emphasis on economic efficiency at all costs. Rodrik, Dani (2011). *The Globalisation Paradox: Democracy and the Future of the World Economy*. New York: W. W. Norton & Co. (200-201).

⁷ Rodrik, Dani (2011). *The Globalisation Paradox: Democracy and the Future of the World Economy*. New York: W. W. Norton & Co. (200-201).

⁸ Key Statistics and Trends in International Trade 2020, United Nations Conference on Trade And Development (2020), UNCTAD/DITC/TAB/2020/4. UNCTAD Secretariat calculations based on UNCTADSTAT and IMF data. *United Nations Publications*, (1) 1.

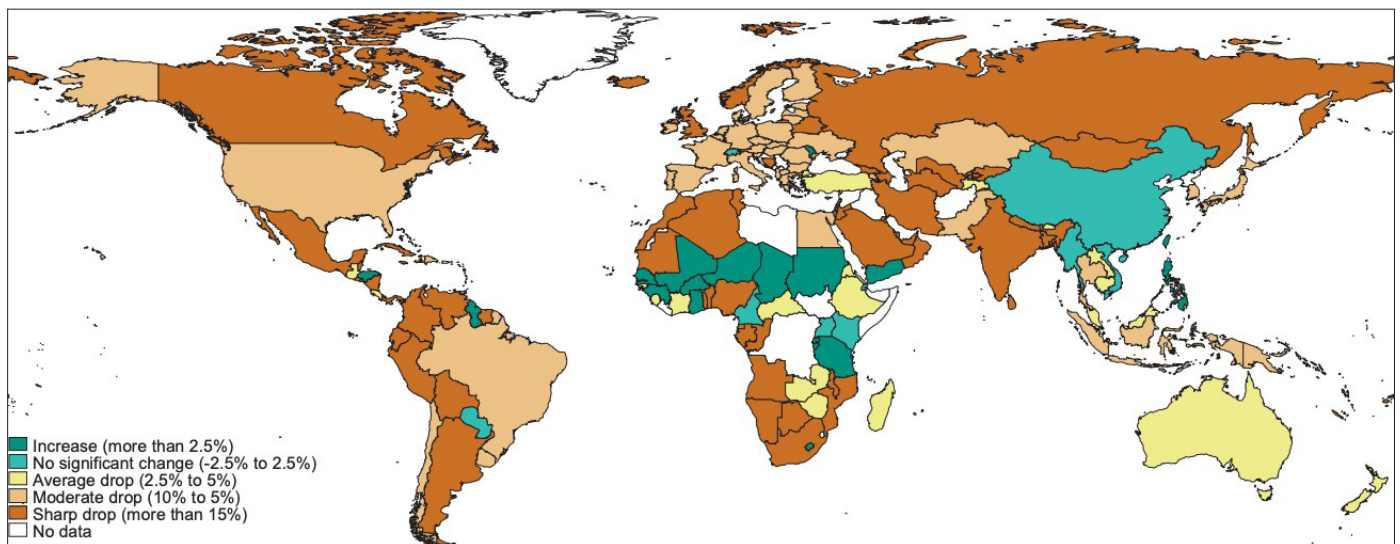


Fig 4. Trade trended a “moderate” or “sharp” drop across most of the global economy in 2020⁹

Although global trade has since recovered moderately,¹⁰ Covid-19 has exposed the vulnerabilities of hyper-globalisation’s fetishisation of efficiency.

2.1.1 Supply Chain Disruptions

During hyper-globalisation, companies outsourced production to subcontractors in countries with cheap labour and lax regulations.¹¹ This global supply chain reaped great profit but was too thinly spread out.

Covid-19 revealed the vulnerability of such chains to unpredictable “structural breaks”.¹³ As governments implemented lockdowns, crucial links in the global supply chain shut down, disrupting various industries (See Annex A).

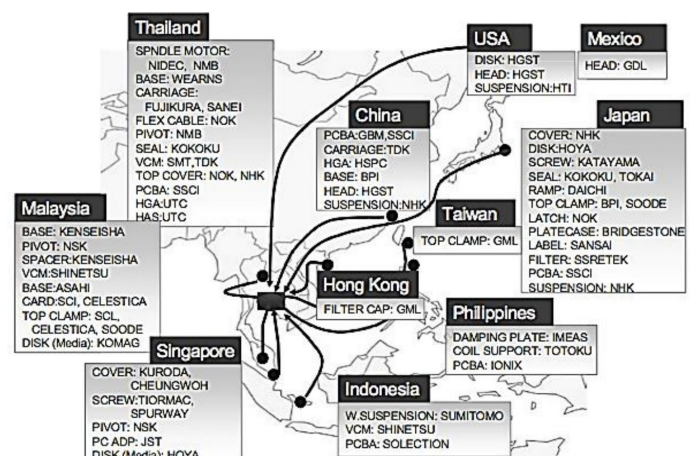


Fig 5. Origins of different components of a Thai hard disc drive — an example of a global, multi-tiered supply chain¹²

⁹ Ibid.

¹⁰ The State of Globalization in a Distancing World (2020). Steven A Altman, Philip Bastian. *DHL Global Connectedness Index 2020*, (1) 6.

¹¹ Is It Time to Rethink Globalized Supply Chains? (19 Mar 2020). MITSloan Management Review. <https://sloanreview.mit.edu/article/is-it-time-to-rethink-globalized-supply-chains/>

¹² Hiratsuka, D. 2011. Production Networks in Asia: A Case Study from the Hard Disk Drive Industry. ADBI Working Paper 301. Tokyo: Asian Development Bank Institute.

¹³ Strategy in a ‘structural break’. McKinsey & Company. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/strategy-in-a-structural-break>



Fig 6. Textile workers in India face disruptions in operations amidst the pandemic¹⁴

2.1.2 Unhealthy Overdependence

Covid-19 has also unveiled an unhealthy overreliance on key countries for sensitive goods. Countries realised that supplies of such goods might not be guaranteed during global crises. In May 2020, critics accused China of hoarding key equipment.¹⁶ This played out against worsening US-China relations and economic contest,¹⁷ exacerbating globalisation's decline.

2.1.3 Globalisation to Regionalisation

Covid has accelerated the shift away from hyper-globalisation. Global supply chain vulnerability incentivises businesses to de-globalise, and popular frustration at overreliance on foreign countries gives policymakers a political motive to do the same. US-China rivalry, aggravated by the pandemic, hastens



Fig 7. Political cartoon showing the deep entanglements between the US and China exposed by the onset of Covid¹⁵

¹⁴ Fashion's Supply Chain Disruptions: What You Need to Know. Business of Fashion. <https://www.businessoffashion.com/articles/global-markets/fashions-supply-chain-disruptions-what-you-need-to-know>

¹⁵ Illustration from "How Covid Hastened the Decline and Fall of the US-China Relationship" Opinion Essay by Josh Rogin (4 Mar 2021). *The Washington Post*.

¹⁶ Significantly, China also produces around half of the world's mask and respirator supply. The World Needs Masks. China Makes Them, but Has Been Hoarding Them. *The New York Times*. <https://www.nytimes.com/2020/03/13/business/masks-china-coronavirus.html>

¹⁷ Rising Regionalisation: Will the Post-Covid-19 World See a Retreat from Globalisation? Peter Enderwick, Peter Buckley (2020). *Transnational Corporations*, 27 (2), 99-112.

this reversal too. It is unlikely, however, that countries revert completely to on-shoring,¹⁸ given the limitations of comparative advantage and demographic challenges.

Instead, globalisation will likely be rewired as regionalisation — a selective de-globalisation that encourages bloc integration¹⁹ while cutting back on external exposure.²⁰ By concentrating and shortening supply chains, as Japan²¹ and Europe²² have done in light of Covid, companies build resilience while retaining efficiency.²³

2.2 Singapore's Imperative — In the Centre, At the Crossroads

To sustain its status as a major hub amidst the rising tide of regionalisation, Singapore must position itself in the centre of its own regional system, while remaining at the crossroads of other regional systems.

2.2.1 In the Centre of the Regional System

With global supply chains likely being rerouted into the region, Singapore can expect to find itself in the centre of a dynamic regional market that produces an even greater variety of products, requiring greater logistical needs.²⁴

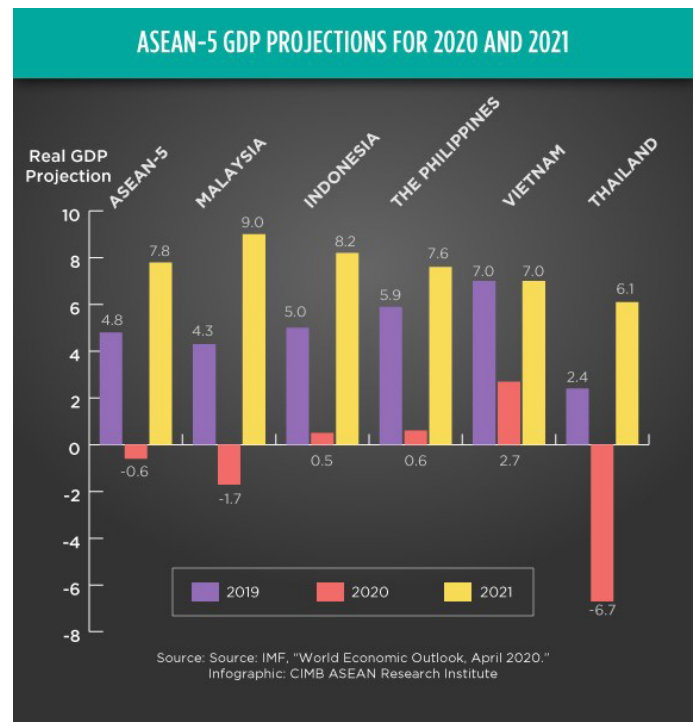


Fig 8. GDP projections for countries in the region made in April 2021²⁵

Singapore's air and seaports can boost efficiency while entrenching their niches in complex logistic processes.²⁶ Singapore can also proactively establish high-frequency air and sea connections with emerging

¹⁸ On-shoring refers to the practice of relocating businesses from outside a country to a location within the national borders of a country. It is opposed to off-shoring, the practice of relocating a business abroad, usually to take advantage of lower labour costs or lax regulations.

¹⁹ Of note, "blocs" in this sense should not be construed purely in the *geographical* sense, but should be thought of more expansively. For instance, though Japan and Vietnam are not geographically proximate to each other, they can be considered to be within the same bloc of countries as they share similar political and trade outlooks. In fact, Japanese FDI into Vietnam is expected to continue growing after a slight dip in absolute terms due to the pandemic in early 2020. <http://ven.vn/vietnam-hopeful-about-future-japanese-investment-43850.html>

²⁰ Rising Regionalisation: Will the Post-Covid-19 World See a Retreat from Globalisation? Peter Enderwick, Peter Buckley (2020). *Transnational Corporations*, 27 (2), 99-112.

²¹ In April 2020, Japan offered businesses \$2.2 billion to shift production out of China and into either Japan or into other regions like Southeast Asia on the grounds of stability and resilience. <https://www.businesstoday.in/latest/world/story/coronavirus-impact-japan-to-offer-22-billion-to-firms-shifting-production-out-of-china-254367-2020-04-10>

²² In a Consultation Note issued on 16 June 2020, the European Union signalled that it intends to build up its "strategic autonomy" to "pursue its interests independently and assertively" through trade policy, essentially heralding greater regulation of external trade with economies outside the Union. https://trade.ec.europa.eu/doclib/docs/2020/june/tradoc_158779.pdf

²³ Alliance for Actions Pilots New Data Infrastructure to Interconnect Supply Chain Ecosystem (16 Nov 2020). <https://www.imda.gov.sg/news-and-events/Media-Room/Media-Releases/2020/Alliance-for-Action-Pilots-New-Data-Infrastructure-to-Interconnect-Supply-Chain-Ecosystem>

²⁴ Already, the establishment of various pharmaceutical plants has been announced in the region. BioNTech announced that it will build its headquarters and a vaccine manufacturing site in Singapore. Vietnam has also announced its intention to build a global vaccine factory. This would drive up the demand for complex logistical processes like cold-chain. <https://e.vnexpress.net/news/news/vietnam-offers-to-build-covid-vaccine-production-factory-for-global-supply-4287262.html>

²⁵ CARI captures 450: ASEAN-5 countries projected to grow in 2021. *CARI ASEAN Research and Advocacy*.

²⁶ The handling of regional vaccine shipments using cold-chain processes has already demonstrated the attractiveness of this strategy. Some examples of complex, digital logistical processes include cold-chain, the management of perishable goods, digital container flow node decongestion and digital real-time tracking of good movement through supply chains. Such complex processes require entire logistical ecosystems and specialised facilities to manage — something that Singapore can further deepen its expertise in. <https://lot.dhl.com/small-but-connected-how-singapore-stands-its-ground-as-a-global-logistics-hub/>
<https://www.imda.gov.sg/news-and-events/Media-Room/Media-Releases/2020/Alliance-for-Action-Pilots-New-Data-Infrastructure-to-Interconnect-Supply-Chain-Ecosystem>

regional growth-hubs to enable greater intra-regional mobility.²⁷

Beyond that, seeing how Covid-19 has accelerated digitalisation and remote working, Singapore should focus on developing intangible regional connections too. Singapore can capitalise on high investor confidence induced by its pandemic resilience²⁸ to double-down on its position as the region's FDI and arbitration hub as more businesses near-shore. Simultaneously, Singapore can fashion itself as the region's Silicon Valley — a venture capital source, an environment for university-private sector collaboration and an innovation test-bed.²⁹

2.2.2 At the Crossroads of Regional Systems

Covid-19 will likely accelerate the formation of different regional spheres and Singapore must remain at the intersection of them. The global vaccine divide between China and the rest of the world might be emblematic of this trend. Singaporean financial, legal and consulting services can act to bridge the technological barriers between the “walled gardens”³⁰ of different regionally-based standards and technologies.³¹ By remaining interoperable and not over-committing ourselves to one side, we stand to reap the rewards of a recontextualised globalisation.

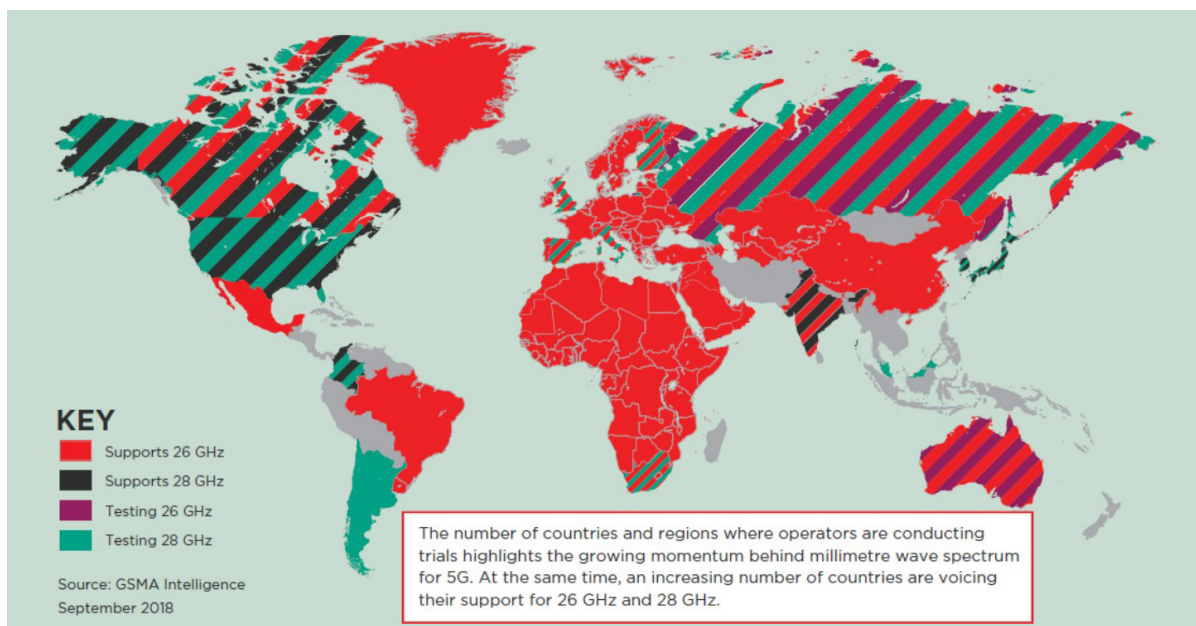


Fig 9. Frequency spectrums that different countries use for 5G, with blocs (US, South Korea, Japan etc) operating on spectrums incompatible with other blocs (China, most of Europe and Africa)³²

²⁷ Three factors that have made Singapore a global logistics hub (26 Jan 2017). Yin Lam & Karuna Ramakrishnan. <https://blogs.worldbank.org/transport/three-factors-have-made-singapore-global-logistics-hub>

²⁸ Pandemic resilience can be source of competitive advantage for Singapore: MAS chief (7 Jul 2021). The Straits Times. <https://www.straitstimes.com/singapore/politics/pandemic-resilience-can-give-spore-competitive-edge-say-s-mas-chief>

²⁹ <https://www.edb.gov.sg/en/business-insights/insights/asia-s-testbed-for-smart-cities.html>

³⁰ How Singapore can sharpen its innovative edge (16 Jul 2021). Ravi Menon. IPS-Nathan Lectures. Published in The Straits Times.

³¹ Intractable gaps have already formed in 5G, carbon taxation, Intellectual Property rights and global taxation policy have surfaced between different regional blocs. The US-China battle over 5G threatens to split the world into separate spheres with different 5G standards on specifics like frequency and technology standards.

³² Research done by Global System for Mobiles Association for the APAC Spectrum Management Conference. <https://www.gsma.com/spectrum/wp-content/uploads/2019/05/Cristian-Gomez.pdf>

CHAPTER III RECONFIGURING ECONOMIES

“The economic impact of this great pandemic (is) an extraordinary opportunity — and a commensurate challenge.”

McKinsey and Company³³

Singapore’s economic story is a tale of reinvention amidst challenge, rebounding sharply and emerging

stronger after each setback.³⁴ Covid-19 is one such challenge, and will likely have a broad and significant economic impact.

This chapter posits that Covid’s key economic impacts come in the form of digital transformation and reprioritising existing conceptions of value. For the Singaporean economic miracle to continue, we must position ourselves to best take advantage of these changes.

ECONOMIC IMPACT

The impact of COVID-19 on the Singapore economy has been broad and significant, affecting different sectors of the economy to varying degrees.

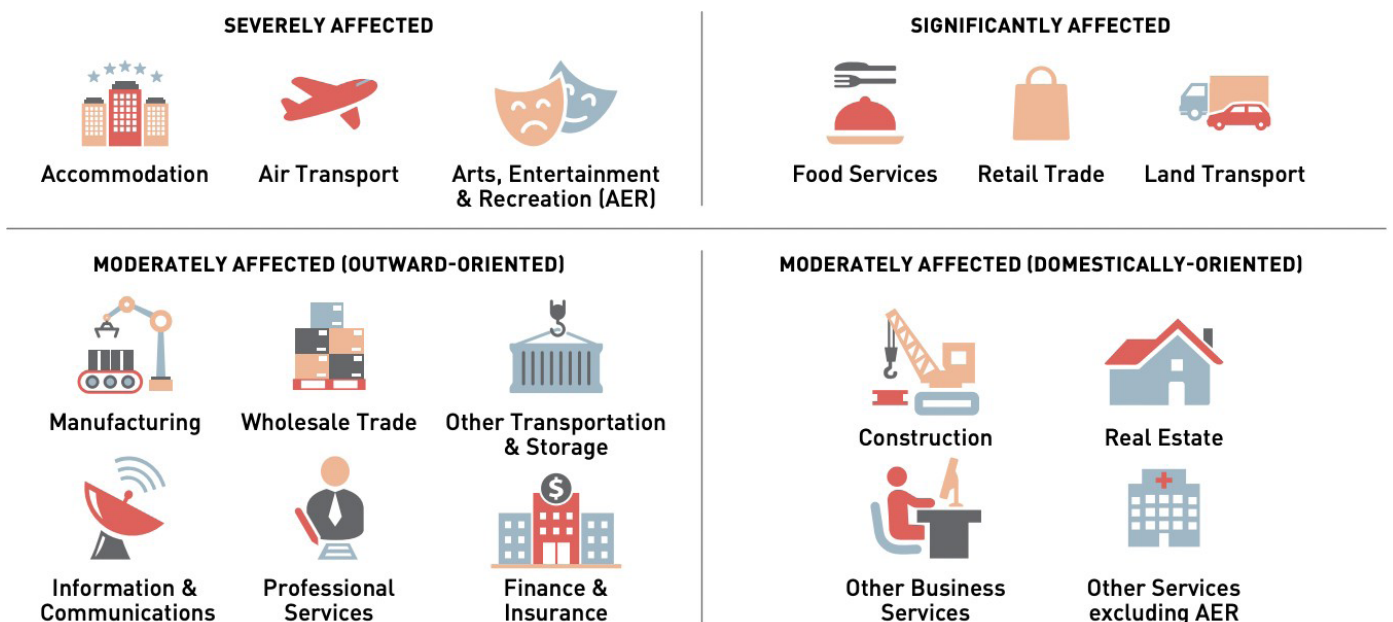


Fig 10. Economic impact of Covid-19 on various sectors of the Singapore economy³⁵

³³ Looking beyond the pandemic: Could the world economy gain more than it lost to COVID-19? (4 Jun 2021). McKinsey & Company. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/looking-beyond-the-pandemic-could-the-world-economy-gain-more-than-it-lost-to-covid-19>

³⁴ Particularly in the early 2000s, coming off the impact of the Asian Financial Crisis, Singapore’s economy was buffeted by one crisis after another, including the Dotcom crash in 2001, SARS in 2003 and the Global Financial Crisis in 2008. <https://www.mas.gov.sg/news/speeches/2015/an-economic-history-of-singapore>

³⁵ Impact of the Covid-19 Pandemic on the Singapore Economy. Economic Survey of Singapore First Quarter 2020. Ministry of Trade and Industry.

3.1 Digital Transformation

Covid-19 catalysed the digital development of Singaporean businesses. 84% of businesses reported accelerated digitalisation efforts due to the pandemic, with lockdown and other physical limitations pushing more activities online.³⁶

3.1.1 Uneven Growth

However, the pandemic did not affect all sectors equally. Increased digitalisation buoyed certain industries, while other sectors faced greater distress.³⁸ In the rush to digitalise our businesses, there is a need to ensure no one gets left behind.

For the economy to truly digitalise, integration needs to be done vertically across the entire supply chain.⁴⁰ The scope of areas for improvement through



Fig 12. Construction sites left empty as the construction and civil engineering sector took a hit during the pandemic³⁹

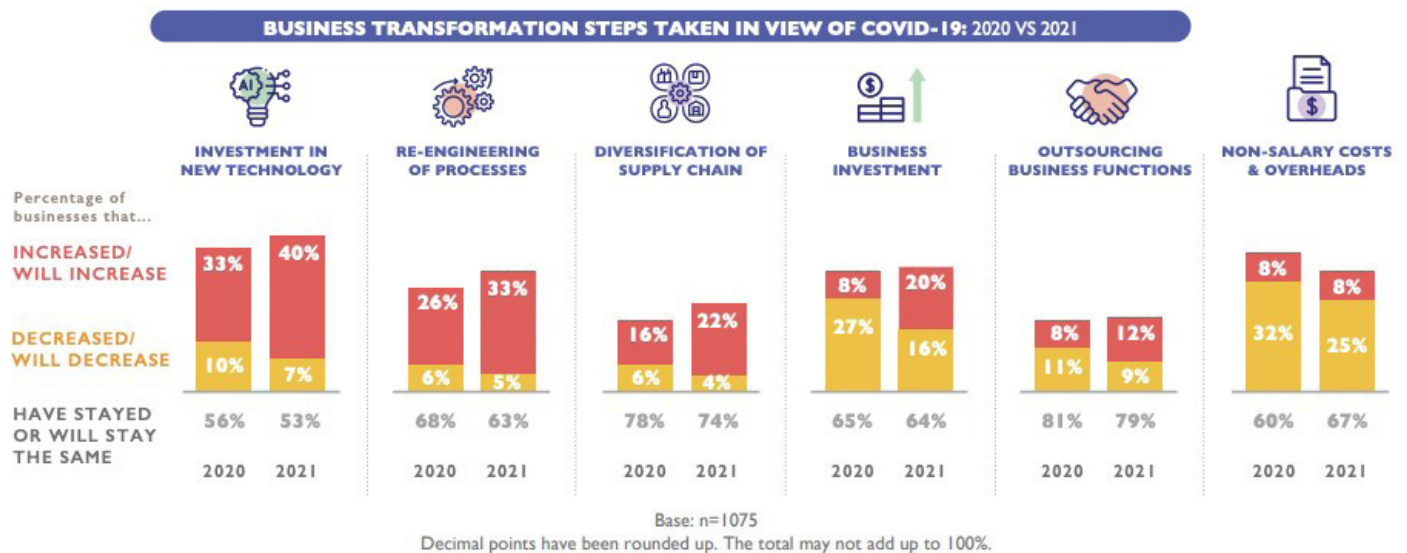


Fig 11 Business transformation steps taken in view of Covid-19 over the last two years³⁷

³⁶ National Business Survey 2020/2021 Summary Report. Singapore Business Federation, 12.

³⁷ *Ibid.*

³⁸ Digitalisation has in particular benefitted the logistics and transportation, banking and insurance, and IT and professional service sectors, while sectors like construction and civil engineering, highly reliant on migrant workers, have suffered during the pandemic.

³⁹ Suspending all construction work to stem coronavirus spread is a difficult trade-off: Josephine Teo (25 Apr 2020). The Straits Times. <https://www.straitstimes.com/singapore/suspending-all-construction-work-to-stem-coronavirus-spread-is-a-difficult-trade-off>

⁴⁰ This is to ensure efficiency across the supply chain as a whole. For example, even the most sophisticated e-commerce transactions would be hamstrung by the retention of traditional backend systems of paper cataloguing.

digitalisation is regularly underestimated by most companies.⁴¹

By focusing on integrating digital solutions into every aspect of business, digitalisation will eventually spread to all sectors of the economy, allowing Singapore businesses to reap its rewards while also giving them a competitive advantage over their international counterparts.

3.1.2 Rampant Proliferation of Innovation

The Covid-19 pandemic has sparked numerous product and process safety innovations. TraceTogether and SafeEntry aside, services such as the “Ask Jamie” chatbot have been enhanced to address Covid-19 queries.⁴³

While it is uncertain if these innovations will endure post-pandemic, the increased demand for safer

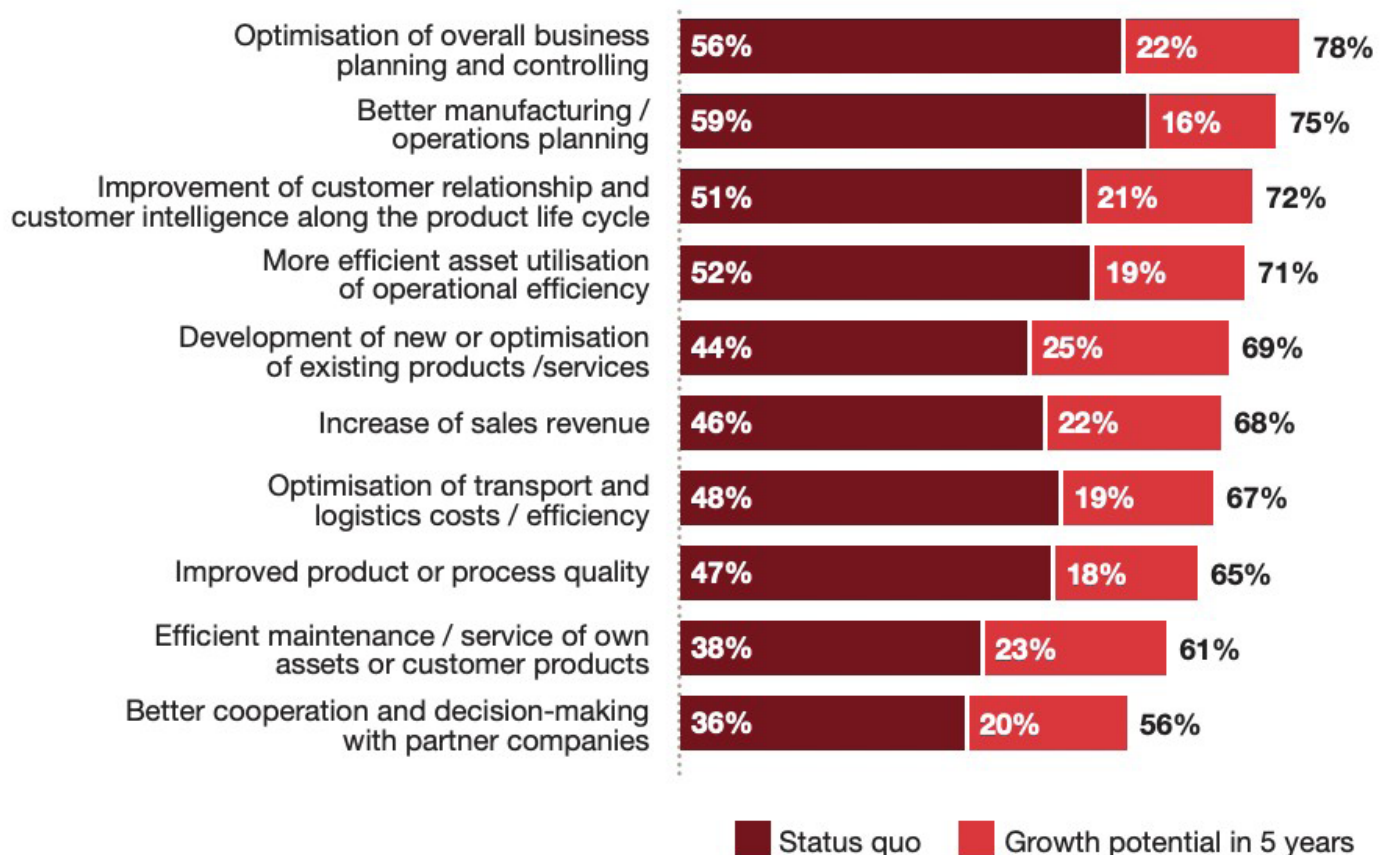


Fig 13. Scope for improvement in various business departments through digital analysis⁴²

⁴¹ Industry 4.0: Building the Digital Enterprise. Global Digital Operations Study. *PricewaterhouseCoopers*.

⁴² *Ibid.*

⁴³ “Ask Jamie” chatbots used by various ministries started using data analytics and machine learning to detect trending topics and improve accuracy of replies related specifically to Covid-19. <https://www.tech.gov.sg/products-and-services/responding-to-covid-19-with-tech/>

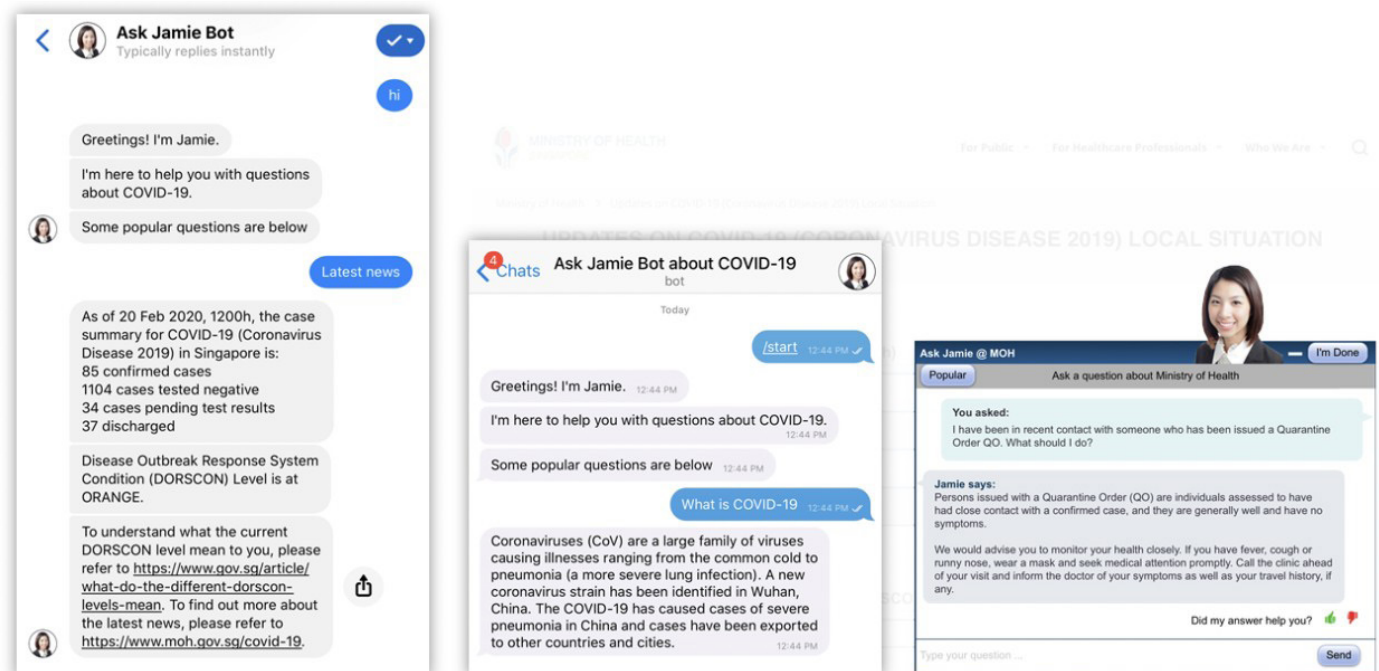


Fig 14. Ask Jamie chatbot using data analytics to respond to Covid-19 queries⁴⁴

interactions as well as digital platforms, software and hardware may cause problems.⁴⁵ New companies need to stay nimble to seize opportunities, riding the wave of increased innovation and risk-taking as others seek to diversify and become more modular.⁴⁶ This is best achieved in a regulatory framework which encourages agile thinking.

3.2 Shifting Perceptions of Value

Pre-Covid, economic policymaking was primarily focused on boosting economic growth.⁴⁷ The pandemic, however, has exposed chronic development fault-lines challenging how people conceive economic value.

⁴⁴ Responding to Covid-19 with Tech. GovTech Singapore. <https://www.tech.gov.sg/products-and-services/responding-to-covid-19-with-tech/>

⁴⁵ How Covid-19 is shaping software and hardware trends (23 Jul 2020). Simmons & Simmons. <https://www.simmons-simmons.com/en/publications/ckc3i7zaxl3m0900e9rfe64g/how-covid-19-is-shaping-software-and-hardware-trends>

⁴⁶ Hastened developmental processes and the accelerated consolidation of industries may pose difficulties for regulatory frameworks meant to keep these in check. Singapore must straddle the line between overly restrictive regulations that curtail innovation and overly lax regulations that result in a "Wild West" of innovation.

⁴⁷ Towards Post-Covid-19 Resilient Economies. Economic and Social Survey of Asia and the Pacific 2021. *United Nations Economic and Social Commission for Asia and the Pacific*.

3.2.1 Essential Workers



Fig 15. Jobs considered essential that are undervalued in the eyes of the public⁴⁸

Covid-19 has revealed that many essential societal services are neither well-paid nor valued. Since such jobs are generally shunned by the majority, tying wages to productivity in these sectors, as would be normal

for other jobs, may be a “false equivalence”.⁴⁹ Going forward, the essential nature of these services should be valued as well.

⁴⁸ 8 in 10 Singaporeans willing to pay more for essential services: Survey (14 Jun 2020). The Straits Times. <https://www.straitstimes.com/singapore/manpower/8-in-10-singaporeans-willing-to-pay-more-for-essential-services>

⁴⁹ A “false equivalence” refers to a comparison between two subjects based on flawed reasoning. In this case, the increased remuneration that would reward increased productivity in other sectors may not be applicable to essential work due to its undesired nature. NMP Walter Theseira urges rethink to value essential, manual work (5 Jun 2020). The Straits Times. <https://www.straitstimes.com/politics/nmp-urges-rethink-to-value-essential-manual-work>

3.2.2 Resilience over Efficiency

Singapore's small size and lack of natural resources has necessitated an openness to trade and investment, forcing the economy to remain competitive and efficient, with spare capacity often being viewed as wasteful.⁵⁰ However, this ruthless cost-cutting has left companies with little flexibility to absorb disruptions.⁵¹

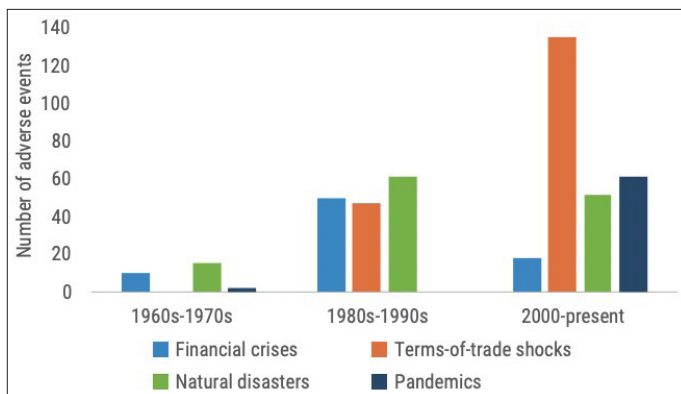


Fig 16. Adverse events classified by category since the 1960s⁵²

With increasing trends of adverse events affecting economies, Singapore should be prepared for such disruptions by buffering itself with spare capacity, paramount for a resilience-based economy. This is especially true in essential services like healthcare and food security.⁵³

3.2.3 Green Transformation

Covid-19 has also engendered a renewed emphasis on environmental sustainability. Increasing digitalisation and the ability to work from home during the pandemic

has shown that there are alternatives to emission-heavy activities like transportation.

With this shift in perceptions, Singapore is best placed to take advantage of these growing opportunities by positioning itself as a green sustainability hub. In this respect, Singapore can capitalise on several pandemic-induced trends to establish itself as a green economy market leader.

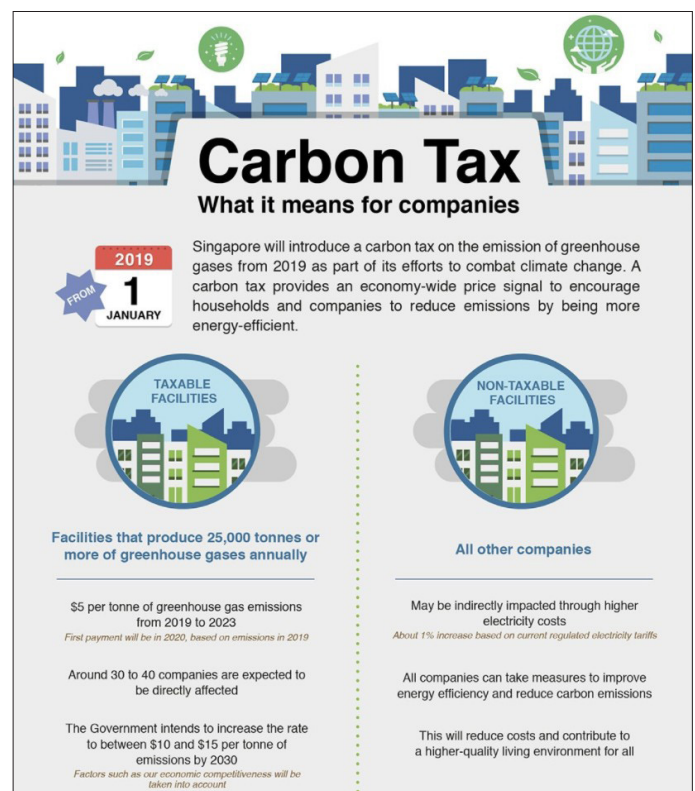


Fig 17. Implementation of Singapore's existing carbon tax in 2018⁵⁶

⁵⁰ Globalisation in a Small Open Economy: the Singapore Experience. Edward Robinson. https://www.bis.org/publ/bppdf/bispap100_u.pdf

⁵¹ Emerging Stronger Taskforce Report. Emerging Stronger Together. Ministry of Trade and Industry, 6.

⁵² Towards Post-Covid-19 Resilient Economies. Economic and Social Survey of Asia and the Pacific 2021. United Nations Economic and Social Commission for Asia and the Pacific.

⁵³ Essential services are usually defined as services and functions that are critical in maintaining health and welfare. In Singapore, these services were allowed to remain open during the circuit breaker in compliance to covid lockdown measures. [https://www.gobusiness.gov.sg/images/covid/Permitted%20Services%20\(26%20Aug\).pdf](https://www.gobusiness.gov.sg/images/covid/Permitted%20Services%20(26%20Aug).pdf)

⁵⁶ Singapore Budget 2018: Carbon Tax – What Does It Mean to Your Company. The Logistics Academy. <https://tla.edu.sg/singapore-budget-2018-carbon-tax-mean-company/>

Firstly, there is value in strengthening traceability in industry supply chains. This provides the ability to account for and value the costs of emissions.⁵⁴ Transparency is facilitated by end-to-end digitalisation — the hallmark of a post-pandemic world.⁵⁵

Secondly, Singapore's green incentive system has to be reviewed. The current carbon tax is an outlier amongst countries that have introduced similar legislation.⁵⁷ With this in mind, the current incentivization scheme can be improved upon to create a carbon marketplace that would establish Singapore as a green hub.

By taking advantage of growing climate opportunities and leveraging sustainability as an essential enterprise opportunity, Singapore can capitalise on pandemic-induced trends to remodel itself as a regional green hub.

CHAPTER IV REIMAGINING THE SOCIAL CONTRACT

"If you are not socially sustainable, you are not going to have a competitive economy in the long term."

Senior Minister Tharman Shanmugaratnam, 2020⁵⁸

Covid-19 has rendered the truism that society is a chain only as strong as its weakest link painfully obvious. Oft-neglected groups have turned out to be chinks in Singapore's armour, highlighting the necessity of adopting an inclusive approach when confronting today's challenges.⁵⁹ Yet, Covid-19 has also strained Singapore's social fabric, particularly along socio-economic lines.

In this chapter, we demonstrate how Covid-19 stands to exacerbate socio-economic inequalities. We then outline how Singapore might be able to rectify this by reimagining its social contract to deliver inclusive growth.

4.1 Widening Socio-Economic Inequality

Pandemic restrictions have favoured white-collar knowledge workers who were able to easily transition to remote working arrangements vis-a-vis their counterparts in blue-collar/non-knowledge industries.⁶⁰

Faced with greater job and income insecurity, non-knowledge workers have increasingly turned to unstable but accessible gig-employment.⁶³ This trend might have hidden, potentially dangerous impacts on upskilling⁶⁴ and individual CPF contributions.⁶⁵

⁵⁴ As seen from the proposal to require climate-related disclosures for listed companies. <https://www.spglobal.com/platts/en/market-insights/latest-news/energy-transition/082621-singapore-exchange-proposes-mandatory-climate-reporting-in-key-sectors-from-2023>

⁵⁵ Open and free sharing of information can drive the analysis necessary to optimize decision-making and aid the sharing of best practices.

⁵⁷ The average of European carbon taxes hovers around SGD \$57 per tonne, while estimates currently value the actual impact of carbon on the environment at roughly SGD \$102 per tonne. <https://www.straitstimes.com/singapore/politics/singapore-can-introduce-higher-carbon-taxes-and-still-stay-competitive-mas-chief>

⁵⁸ Think of the Economy as a Social Ecosystem, says Tharman (19 Nov 2020). The Business Times. <https://www.businesstimes.com.sg/government-economy/think-of-the-economy-as-a-social-ecosystem-says-tharman>

⁵⁹ In Singapore, significant Covid-19 clusters have been linked to vulnerable groups like migrant workers living in cramped dormitories, contract cleaners who move between different shopping centres and fishmongers. <https://www.straitstimes.com/singapore/nearly-half-of-migrant-workers-in-dormitories-have-had-covid-19>
<https://www.todayonline.com/singapore/32-new-covid-19-infections-singapore-including-17-linked-changi-airport-t3-cleaner>

⁶⁰ Lower-wage Workers in Singapore Hit Hard by Fallout of Pandemic (15 Sep 2020). The Straits Times. <https://www.straitstimes.com/singapore/manpower/lower-wage-workers-here-hit-hard-by-fallout-of-pandemic>

⁶³ Commentary: The gig economy — a surprise boost from the pandemic and in Singapore, it's not going anywhere (9 Mar 2021). Channel News Asia. <https://www.channelnewsasia.com/news/commentary/gig-economy-performance-covid-19-jobs-revenue-grab-gojek-14288764>

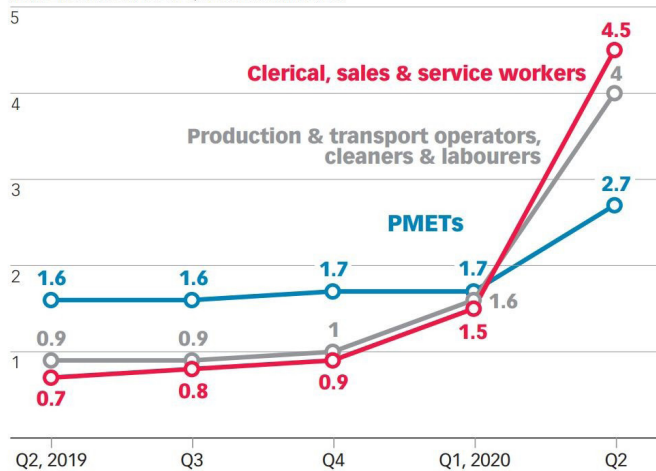
⁶⁴ Gig economy workers might be disincentivised from upskilling, facing challenges as they usually have to pay for upskilling courses out of their own pockets and face significant opportunity costs in the form of lost income when going for such courses (see Fig 21). They might also not have enough time or energy, or might have a misperception of financial security due to their employment situation. <https://www.channelnewsasia.com/news/commentary/grab-drivers-hard-find-job-gig-economy-cpf-retirement-skills-10691350>

⁶⁵ Self-employed gig economy workers only need to contribute to the MediSave CPF account. Self-employed persons are also not liable for any employer CPF contributions into any of their accounts. <https://www.cpf.gov.sg/Members/Schemes/schemes/self-employed-scheme/self-employed-matters>

Blue collar bears brunt

Incidence of retrenchment among locals

NUMBER RETRENCHED PER 1,000 LOCAL EMPLOYEES



Source: Ministry of Manpower's Labour Market Report

Fig 18. Workers in industries sales/service, transport and cleaning were more likely to be retrenched than PMETs during Covid-19⁶¹

Staggered recovery

Covid-19 impact by sector

PROJECTED CHANGE IN GDP GROWTH (%)

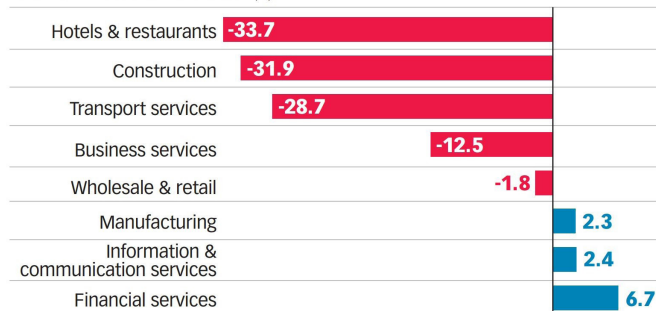


Fig 19. Blue-collar/non-knowledge industries are generally expected to recover slowly, likely meaning prolonged job insecurity for workers in those sectors⁶²

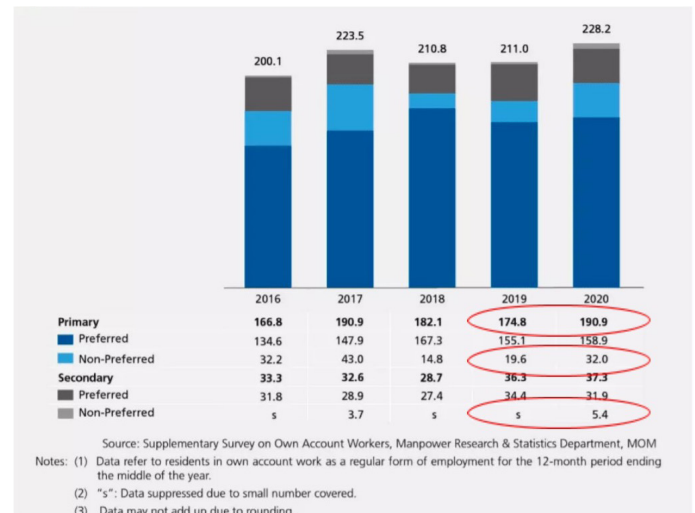


Fig 20. 2020 saw an increase in own account workers (freelancers in gig economy), with a notable increase in "non-preferred" primary/secondary account holders who might have been forced into the gig economy due to Covid-19⁶⁶

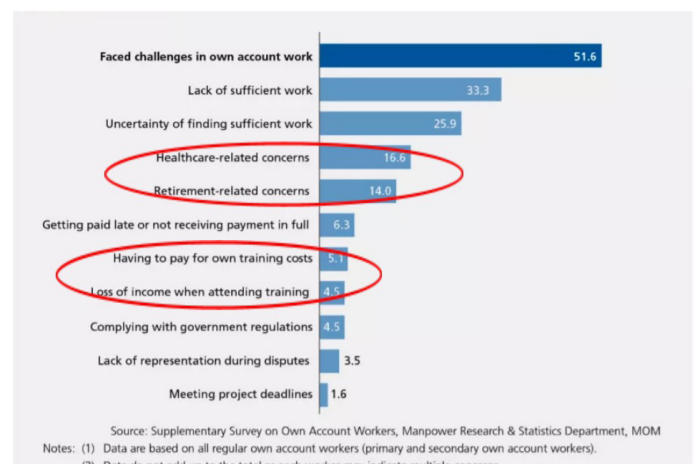


Fig 21. Own account workers (ie freelancers in the gig economy) face difficulties with healthcare/retirement savings and face difficulties upskilling (circled in red)⁶⁷

⁶¹ How has Covid-19 hit Singapore's less well-off? (26 Oct 2020). The Business Times. <https://www.businesstimes.com.sg/government-economy/how-has-covid-19-hit-singapores-less-well-off>

⁶² Ibid.

⁶⁶ Labour Force in Singapore 2020. Impact of COVID-19 on the Labour Market. MRSD 2020 Labour Force Survey Findings. Ministry of Manpower.

⁶⁷ Labour Force in Singapore 2020. Impact of COVID-19 on the Labour Market. MRSD 2020 Labour Force Survey Findings. Ministry of Manpower.

As Covid-19 accelerates digitalisation, workers in sunset industries or uncompetitive companies face structural unemployment. Intergenerational inequalities may worsen as the digital divide between youths and older workers translates into employment bias. Simultaneously, rich asset-owners have seen their incomes skyrocket due to unprecedented levels of global expansionary monetary and fiscal policy.⁶⁸

Like a ventilator, current relief measures have kept the socio-economic balance on life support. However, these policies will inevitably end, portending the potential untenable widening of socio-economic inequality.

4.2 Singapore's Imperative — A Resilient Social Compact

Singapore needs imaginative solutions to deliver inclusive growth. A reimagined social contract can build a more resilient social compact.

4.2.1 Calibrating Existing Schemes

For lower-income workers who have felt Covid-19's impact most acutely, a more robust social safety net can be considered.⁶⁹ For starters, temporary wealth transfers to cushion the immediate aftermath of the pandemic can be fashioned into longer-term programmes, funded by a recalibration of progressive taxes to redistribute wealth.⁷⁰

Skills Ignition SG
A Grow with Google PROGRAM

Created for Singapore Citizens and PRs, Skills Ignition SG is a new jobs and skills initiative that equips you with the skills you need to be job-ready in Digital Marketing or Cloud Technology, with Google's tried and tested curricula and certifications.

Curriculum options	Digital Marketing	Cloud Technology
Training provider	Avado	Agilitys
Curriculum overview	Develop your digital marketing skills and strategies to land jobs ranging from Product Marketing Manager to Content Strategist. Course modules include: <ul style="list-style-type: none"> Embracing Change in the Digital Age Digital Channels and Technologies Fundamentals of Data and Analytics 	Learn to deliver secure computing services—servers, software, analytics, and more—over the cloud to prepare for roles like Infrastructure Engineer or Network Administrator. Courses modules include: <ul style="list-style-type: none"> Business Transformation Design and Process Networking and Security
Start month	September 2020	August 2020

Training programmes*	Programme 1 Vocational training**	Programme 2 Vocational and On-the-job training
Programme duration	6 months Vocational training in Digital Marketing or Cloud Technology	3 months Vocational training in Digital Marketing or Cloud Technology + 6 months On-the-job training with Google or one of the host companies
Compensation	S\$ 1,500 monthly training allowance	Monthly salary
Training fee	S\$ 500 *Payable in SkillsFuture credit	No fee
Target candidates	Up to 2,400 local mid-career job seekers	Up to 600 local job seekers

Participants may apply to pursue either purely vocational training or a mix of vocational and on-the-job training.

Fig 23. "Skills Ignition SG" — an example of a place-and-train initiative by Google in partnership with the EDB and SkillsFuture, Google⁷³

⁶⁸ Forbes' Rich List: Combined net worth of Singapore's 50 richest people rises 25%; 3 new faces debut (21 Aug 2021). Today Online. https://www.todayonline.com/singapore/combined-net-worth-spores-50-richest-people-rises-25-cent-three-new-faces-debut-forbes?cid=tdy%20tg_tg-pm_social-msging-free_09102018_today

⁶⁹ National Day Rally Speech by Lee Hsien Loong. Published by The Straits Times. <https://www.straitstimes.com/singapore/politics/prime-minister-lee-hsien-loongs-national-day-message-2021-read-his-speech-in-full>

⁷⁰ For instance, as part of Budget 2020, the government unveiled the one-off Care and Support Package, which included policies such as a one-time Workfare Special Payment. The Workfare Income Supplement (WIS) is one programme that can be expanded upon to enhance our safety net. The Workfare and PWM schemes can also be further expanded upon. <https://www.straitstimes.com/singapore/politics/mas-chief-says-wealth-tax-could-tackle-wealth-inequality-in-singapore>

⁷³ A new skills partnership for Singaporeans (20 Jul 2020). Google in Asia. <https://blog.google/around-the-globe/google-asia/new-skills-partnership-singapore/>

Covid-19 has also exposed the precarious position of those on the margins, like Grab drivers or sunset industry workers. Beyond helping the most vulnerable, the government can focus on these groups too.

Regulatory regimes can be adapted to the increasing prevalence of gig-employment. Gig-economy matching services like Grab could be made liable for a portion of CPF or work-injury insurance for full-time drivers.⁷¹ Simultaneously, the power of freelance and gig-employee unions can be expanded to level the employer-employee playing field.⁷²

To mitigate structural unemployment, Singapore can develop a dynamic labour market by evolving place-and-train initiatives into long-term fixtures across more industries to provide job-seekers with quality experience on top of certifications.

To boost the wages, productivity and skill-level of workers in blue-collar industries that traditionally pay less, blueprints for industry professionalisation can be introduced (see Annex C).⁷⁴ At the same time, dependence on cheap foreign labour should be weaned off.

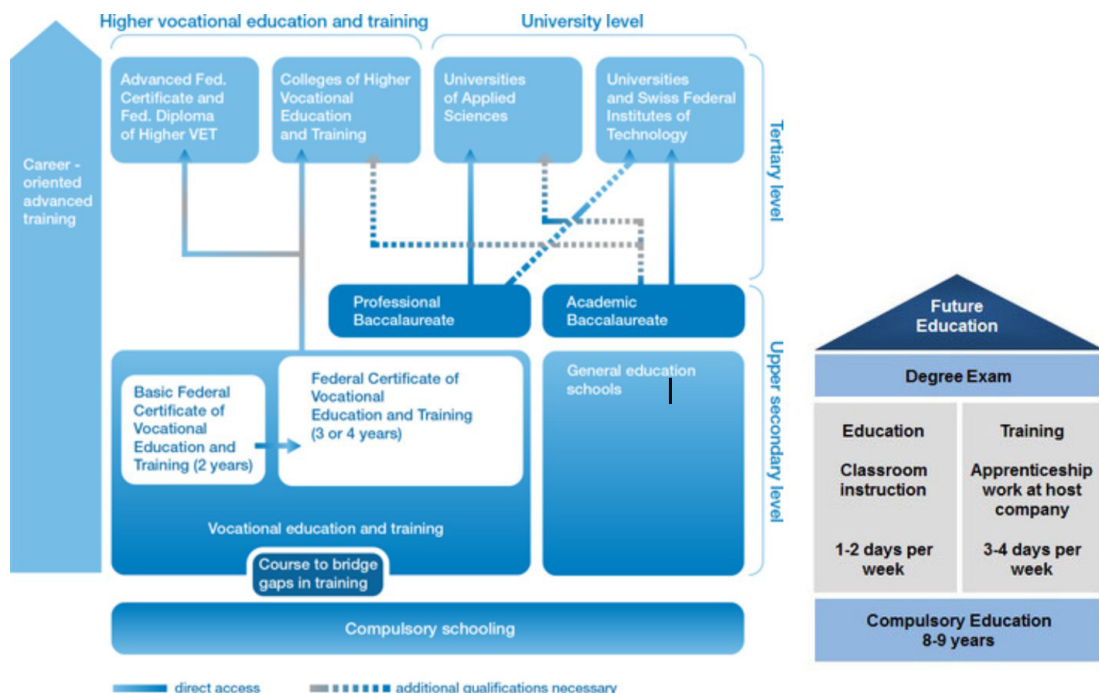


Fig 24. The Swiss education model that allows for training/apprenticeship alongside classroom vocational education, as well as clear pathways of professional progression to the tertiary level in vocational fields⁷⁵

⁷¹ The Singapore gig economy: Right balance on regulations needed to unlock its full potential, say experts (27 Jan 2020). Channel News Asia. <https://www.channelnewsasia.com/news/singapore/the-singapore-gig-economy-right-balance-on-regulations-needed-to-12235556>

⁷² Currently, the NTUC has created the Visual, Audio, Creative Content Professionals Association and the National Delivery Champions Associations to represent freelancers in the gig economy. However, there has been criticism that these associations do not level the playing field between employers and gig workers. Other sectors of the gig economy are also still not yet covered by such associations. <https://www.straittimes.com/singapore/ntuc-forms-two-new-associations-for-creative-content-professionals-and-delivery-riders>

⁷⁴ To do so, structured, formalised and officially-recognised vocational training courses can be designed in tandem with rigorous apprenticeship programmes for all occupations, especially blue-collared ones to "professionalise" and put a premium on quality in such industries. <https://www.straittimes.com/opinion/how-to-reclaim-jobs-for-locals-0>

⁷⁵ Global Risks 2014. World Economic Forum. <https://reports.weforum.org/global-risks-2014/part-2-risks-in-focus/2-3-generation-lost/>, <https://www.ebcswiss.org/dual-education-switzerland/>

4.2.2 Evolving the Tripartite Dynamic

However, bigger government must not spiral into Big Government. Excessive government intervention might cause a “crowding-out effect”⁷⁶ and stifle the social economy.⁷⁷ The rollout of TraceTogether, Quarantine Orders and Heightened Alert phases has spotlighted the government’s enlarging footprint in society and its associated tensions. Going forward, the tripartite dynamic between government, private and people sectors could evolve towards greater sensitivity to different stakeholders.⁷⁸

Government can empower the private sector to take more ownership of developing a skilled and productive workforce.⁷⁹ Businesses can also make use of Alliances-for-Action (AfAs)⁸⁰ to envision the future of their industries.

Additionally, the nation’s Covid-19 experience has proven that civil society and businesses are well-equipped to identify and tackle social issues independently.⁸¹ The government can leverage this growing social economy to pursue social causes too.

By recalibrating existing schemes and evolving the tripartite partnership, Singapore can reimagine its social contract to deliver inclusive growth and build a more resilient society.

CHAPTER V CONCLUSION

Covid-19 has caused a seismic shift across the entirety of Singapore. Our economic lifeblood of globalisation is increasingly morphing into regionalisation. Domestically, the twin waves of digitalisation and a fundamental realignment of values look poised to sweep over the economy with even greater strength, while a growing socio-economic gap threatens to fray the social fabric.

Yet, should Singapore manage to adapt, we stand to catch the winds of change in our sails. By recontextualising globalisation, restructuring our economy and reimagining our social contract, we can make Singapore more resilient by delivering economic growth while making sure that all boats truly rise with the tide. Properly harnessed, the economic drivers in a post-Covid world will transform our country from Singapore private limited to Singapore virtually unlimited.

⁷⁶ The “crowding-out effect” refers to the phenomenon where rising government action drives down private sector action. It is usually used to refer to the effects of increasing public sector spending.

⁷⁷ The social economy refers to the collection of cooperatives, mutuals, foundations, ethical banks and social enterprises that prioritise people and communities over business. It is generally considered to be a pivotal engine driving ground-up, sustainable change. <https://www.socialeconomy.eu.org/the-social-economy/>

⁷⁸ After the Pandemic: Building a Fairer Post-Covid-19 Economy. LKYSPP. <https://lkyspp.nus.edu.sg/gia/article/after-the-pandemic-building-a-fairer-post-covid-19-economy>

⁷⁹ How to Reclaim Jobs for Locals (27 Jul 2021). The Straits Times. <https://www.straitstimes.com/opinion/how-to-reclaim-jobs-for-locals-0>

⁸⁰ Alliances for Action are coalitions between the government, businesses and the people sector to seize growth for Singapore in a variety of areas. They were introduced by the government as part of the wider Singapore Together movement. Most of the AfAs currently established are focused on niche economic issues such as supply chain digitalisation, digital commerce etc. <https://emergingstronger.sg/afa>

⁸¹ Employers, operators and NGOs step up for workers cooped up in factory-converted dormitories (5 Jun 2020). Channel News Asia. <https://www.channelnewsasia.com/singapore/factory-converted-dormitories-fcd-migrant-workers-isolation-649836>

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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?

The topic of the 2020 Competition and Consumers Commission of Singapore (CCCS) essay competition was “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?”

The winning essays featured analysed the extent and nature to which the government should intervene in markets today to ensure they function well to meet both economic and social objectives. They also explored whether the current competition and consumer protection laws and policies are sufficient to address market failures, while preserving the competitive process needed to promote efficiency and innovation, given rapid technological changes and the rise of digital economy.

Open Category 1st Prize

Mr Goh Kyi Yeung

(Columbia University at the time of the competition)

Abstract:

Competition and consumer protection law as well as policies are part of a range of levers that the Singapore government utilises to ensure efficient economic outcomes. This existing efficiency-as-endgoal architecture continues to ameliorate — but perhaps only partially — the more deleterious effects of anti-competitive behaviour in fast-moving digital markets. Although the kinds of market failures that occur in digital markets are not unfamiliar, they do present novel definitional, detection and monitoring problems. Concurrently, the nature of the digital economy also challenges some of the implicit assumptions that current laws and policies are based off — for instance, that consumers can access critical decision-making information amongst others. Consequently, while the essay finds that an overhaul of the competition and consumer protection framework is unnecessary, it argues that government intervention through targeted amendments aimed at increasing transparency and clarity is not. Six concrete proposals are provided to tackle both global and Singapore-specific issues posed by the digital economy.

Scan the QR code to
download the full essay:



School Category 1st Prize

**Mr Lee Chong Dao, Joshua
& Mr Khaw Wei Yi, Joseph**

(Recently completed National Service
at the time of the competition)

Abstract:

The balance between having a free market and government intervention has always been difficult to strike and this challenge has only been heightened by the rise of the digital economy precipitating new markets and market conditions. To help shed light on the current state of Singapore's competition and consumer protection regime, this paper evaluates the regime's ability to address market failures surrounding anti-competitive mergers and information asymmetry. Firstly, current laws and policies surrounding anti-competitive mergers have been successful in fairly considering the efficiency gains against losses through the total welfare standard that Singapore adopts. However, the framework used to determine financial penalties are not appropriate for anti-competitive mergers in the digital economy as start-ups tend to prioritise growth over revenue. Secondly, steps have been taken to improve price transparency so as to reduce information asymmetry, though there is still a lack of regulations to adequately protect consumers from abuses of information asymmetry in the peer-to-peer lending industry. Such abuses may proliferate in the digital economy if left unchecked as the growth of fintech broadens access to complex financial and digital products. To address these shortcomings, this paper recommends that (1) the transaction value of mergers be considered in the damage assessment of anti-competitive mergers; (2) transparency be promoted by enhancing regulations mandating disclosure by producers; and (3) regulatory oversight be increased via cross-sectoral collaboration between government agencies.

Scan the QR code to
download the full essay:



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

The winning essays of the 2022 Competition and Consumers Commission of Singapore (CCCS) essay competition (topic above) featured concrete recommendations for competition laws to encourage environmental sustainability practices in the private sector based on legal and economic frameworks.

Open Category 1st Prize

Mr Tseng Zhi Cheng, Sean Douglas
(Asia-Pacific Centre for Environmental Law)

Abstract:

As the climate change problem worsens, the private sector is increasingly seen as a vital lever for environmental sustainability. Competition law is often seen as an obstacle to much needed business collaboration. It need not be. Through the exemption to the prohibition under s. 34 of the Competition Act, environmental sustainability can be incorporated into the competition law framework. Such exemption provides that agreements would not be prohibited if they contribute to the promotion of technical or economic progress. Environmental economics has progressed enough to allow environmental benefits to be translated into the language of economics and competition law.

The CCCS is thus encouraged to adopt a broader interpretation of “economic progress” to allow the consideration of environmental benefits in its cost-benefit analysis. In setting out a theoretical rubric, the CCCS could act in one of two ways: first, it could act to prevent businesses from agreeing to activities harmful to sustainability. This requires a lighter touch approach. Second, it could take action to support agreements that promote sustainability, which would require a balanced approach. Adopting this framework requires some practical implementation. This includes making climate change a strategic priority and publishing specific guidelines on environmental sustainability agreements. The CCCS could also engage in a dialectic with businesses that could extend to creating a ‘sandbox’ for businesses to experiment with sustainability-linked collaborations. Importantly, it would need to undertake capacity-building in sustainability and environmental economics expertise to credibly account for benefits under its analyses. While challenging, competition law’s role in facilitating desirable business collaboration in environmental sustainability is not only possible but critical.

Scan the QR code to
download the full essay:



School Category 1st Prize

Mr Caius Or Shin Yi
(Tampines Meridian Junior College)

Abstract:

This essay explores the role of competition and consumer protection laws in promoting environmental sustainability.

Sections 1 and 2 establish the context of environmental sustainability and the role of firms, highlighting the growing role of firms in promoting environmental sustainability and the various causes of market failure in the market for sustainable initiatives. As key elements of private initiatives, competition and consumer protection laws play an essential role in driving environmental sustainability. Sources of market failure include demand-side market failure and supply-side market failure. Section 2 also illustrates the impacts and introduces an outline of possible ways to reduce market failure such as collaboration among firms, and further details the environmental benefits of collaboration.

Section 3 examines the role of competition law in driving environmental sustainability. Competition law can promote sustainability by enhancing productive and dynamic efficiency, but it also has the potential to impede sustainable collaborations by firms. This is exacerbated by the legal uncertainty surrounding sustainable collaborations given the lack of explicit guidelines and precedent cases. Environmental benefits should be considered as economic efficiencies when assessing the anticompetitive effects of sustainability agreements given the positive externalities generated. This would be consistent with Singapore’s approach to competition law. These benefits can be measured with established methods of pricing environmental benefits.

Section 4 addresses how consumer protection law can be enhanced to better reduce false or misleading sustainability claims (greenwashing).

Scan the QR code to
download the full essay:



Pollution Across Borders

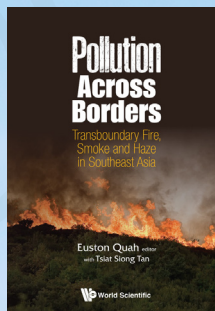
Transboundary Fire, Smoke and Haze in Southeast Asia

Edited by: **Euston Quah & Tsiat Siong Tan**
(NTU, Singapore)

This book is a collection of insights from experts of various fields, and will entail discussions of the recurring haze problem in Southeast Asia.

The book provides a wide range of views on the haze problem. Written in a simple and accessible manner, this book allows the readers to easily access across different fields and develop a deeper understanding of the haze.

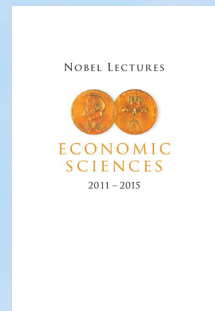
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Nobel Lectures in Economic Sciences (2011–2015)

Edited by: **Mats Persson** (Stockholm University, Sweden)

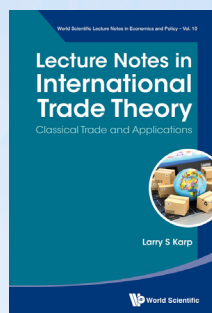
- (2011) Thomas J Sargent and Christopher A Sims "for their empirical research on cause and effect in the macroeconomy";
- (2012) Alvin E Roth and Lloyd S Shapley "for the theory of stable allocations and the practice of market design";
- (2013) Eugene F Fama, Lars Peter Hansen and Robert J Shiller "for their empirical analysis of asset prices";
- (2014) Jean Tirole "for his analysis of market power and regulation";
- (2015) Angus Deaton "for his analysis of consumption, poverty, and welfare".



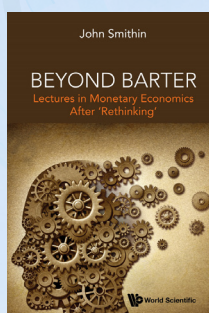
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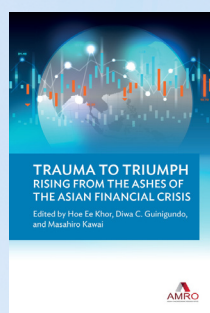
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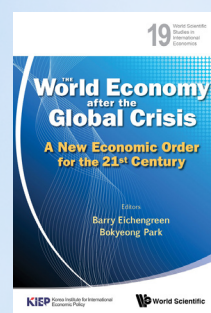
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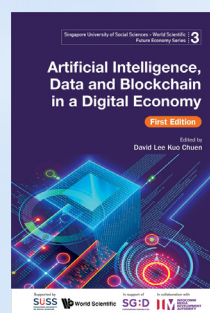
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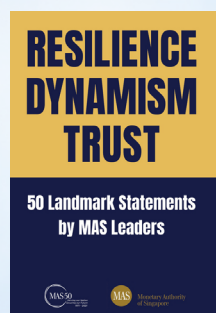
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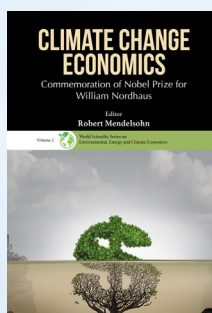
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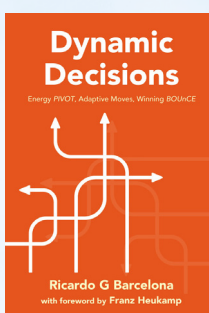
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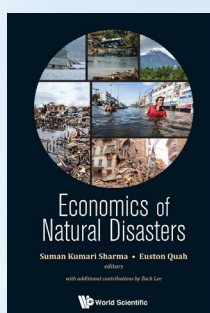
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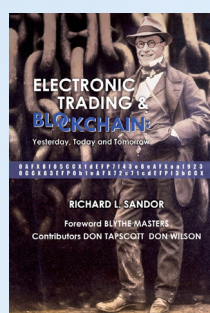
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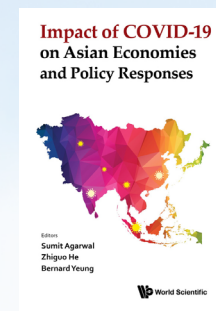
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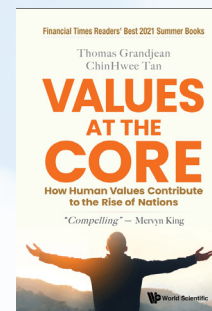
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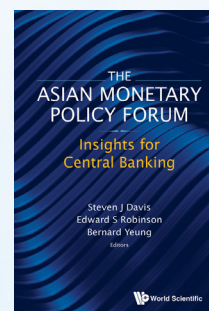
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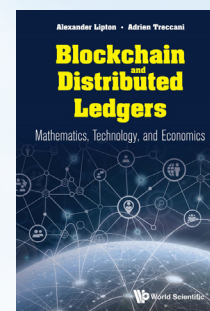
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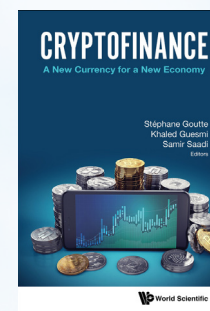
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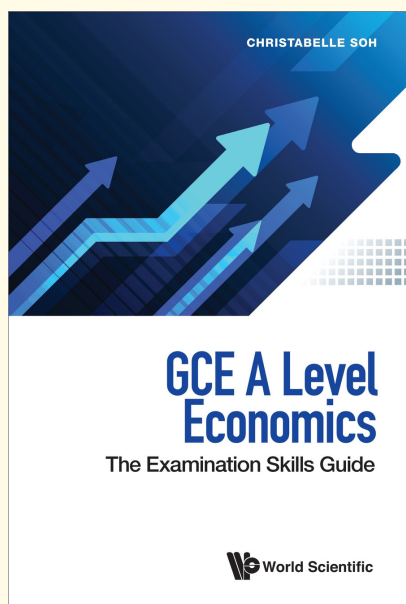


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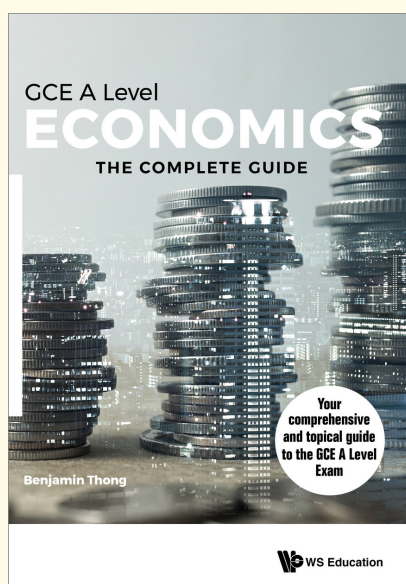
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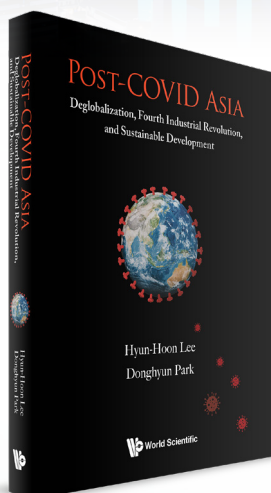
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Post-COVID Asia

Deglobalization, Fourth Industrial Revolution, and Sustainable Development
by **Hyun-Hoon Lee** (Kangwon National University, South Korea)
& **Donghyun Park** (Asian Development Bank, Philippines)

"This insightful and timely book deals with the formidable post-COVID challenges facing Asia. The fresh perspective of two prominent Asian economists outlines the critical challenge of achieving sustainable development at a time of growing deglobalization pressures. The book is well written and offers illuminating case studies as well as constructive, concrete guidance for a better future. It is essential reading for policy-makers, scholars, and practitioners"



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The central focus of *Post-COVID Asia* is the new world that will emerge after the coronavirus. In particular, this book explores how deglobalization will proceed in the post-COVID world and what kind of impact deglobalization will have on Asian economies. After all, in the last few decades, Asia has leveraged globalization to become the world's fastest-growing, most dynamic region. Therefore, an urgent challenge facing Asian economies is to figure out how to survive and thrive when the globalization which served them so well is giving way to deglobalization.

Opportunities have emerged for Asian economies amid the winding down of the third wave of globalization. In fact, the next wave of globalization is already beginning to take shape, in tandem with the Fourth Industrial Revolution, which is full of exciting new technologies. This book offers insights that would help governments, companies and people in Asia to ride the next wave of globalization to power their prosperity.

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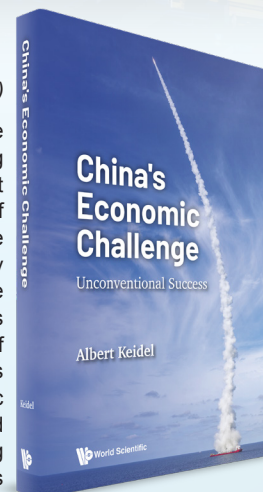
Unconventional Success

by **Albert Keidel** (George Washington University, USA)

This book analyzes economic strategies responsible for China's 40 years of 40-fold growth, suggesting how such strategies might be applied elsewhere. It combines a seven-chapter chronological analysis of China's growth with three additional chapters on the government's leadership role, success in poverty reduction, and China's combined international finance and trade experience. The book recaps why China's success challenges the United States and the field of development economics. The book includes an analysis of the US-China trade war and China's economic prospects in the wake of COVID-19. It is a clear and timely account for anyone interested in understanding the institutions and policies responsible for China's successful development and its likely continuation.

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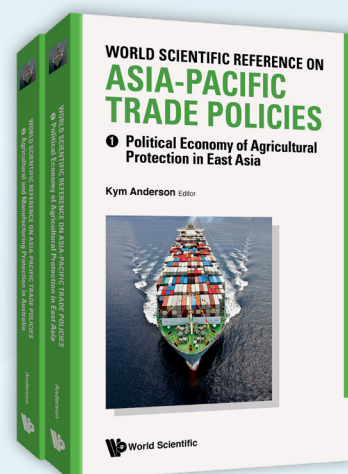
edited by **Kym Anderson** (University of Adelaide, Australia & Australian National University, Australia)

This two-volume reference work provides a timely update on how far the Asia-Pacific has come in opening markets. It analyzes the motivations or ostensible objectives of policies adopted in the past, the changing extent of the domestic price distortions involved, the economic effects of those policies at home and abroad, the political economy forces at work that brought about those policies and their subsequent reform, their consequences for international trade, economic welfare and poverty alleviation, and prospects for sustainable improvements in current policies. Case studies of major East Asian economies and Australia reveal how government priorities to assist farmers versus manufacturers changed over the past century but especially since the 1980s, and how that has affected trade between natural resource-poor and resource-rich economies. This set is highly recommended for those who are interested in the economics and politics of trade policies, agricultural economics, economic development, and food and nutrition security in the Asia-Pacific region and beyond.

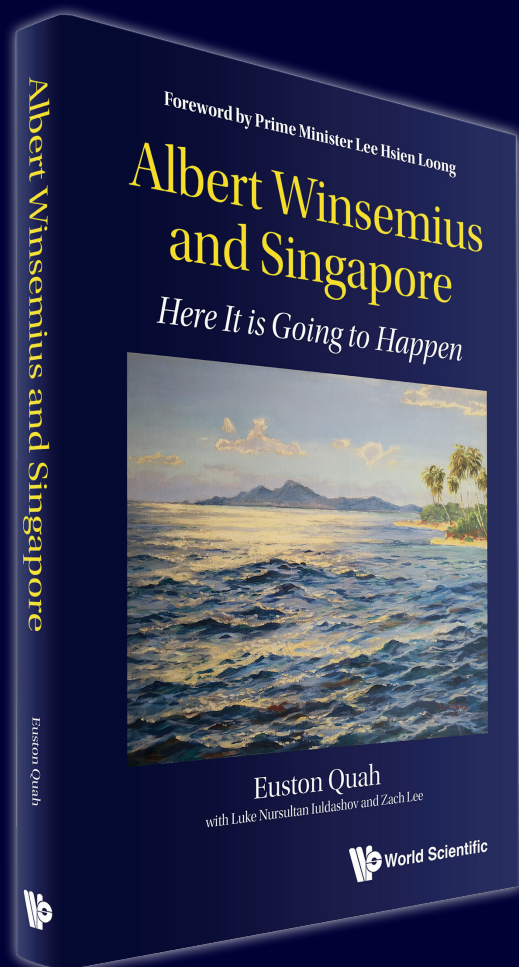
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Albert Winsemius and Singapore

Here It is Going to Happen

by

Euston Quah, Luke Nursultan Iuldashov &
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"Singapore was our father's second homeland. This biography leaves no doubt."

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Here it is going to happen is the title of a painting memorialising Albert Winsemius' industrial survey mission to Singapore. The picture depicts the hilltop view of a pre-industrial Jurong.

Besides being a biography of Albert Winsemius, the book examines Albert Winsemius' affinity with Singapore and his contributions to the nation's economic development. It also looks at his legacy and influence on past, current and future economic planners.

Sample chapters at
<https://doi.org/10.1142/12081>



Call for Papers

THE SINGAPORE ECONOMIC REVIEW

Special Issue on Behavioral Environmental Economics

The Singapore Economic Review will publish a special issue on Behavioral Environmental Economics.

Guest Editors:

Jonathan H W Tan (*University of Nottingham*)

Jinhua Zhao (*Michigan State University*)

Synopsis and Subject Coverage

The Singapore Economic Review will publish a special issue on Behavioral Environmental Economics. This special issue will contribute to identifying direct links between behavioral insights and environmental outcomes, and to improving the methodology of nonmarket valuation and effectiveness of environmental policies on local, regional and global scales. We are interested in rigorous papers in the intersection between behavioral economics and environmental economics, including applications of behavioral economics to environmental decision making and policy, as well as development and test of behavioral models in environmental settings. Developing country contexts are particularly encouraged. We seek papers with theoretical and empirical insights on various aspects of the theme including — but not restricted to — the following areas:

1. Psychological biases in environmental decisions

Psychological biases can form obstacles to effective environmental decision making. Moreover, policies neglecting behavioral factors might be inefficient or result in unintended environmental consequences. A crucial step towards circumventing behavioral failures is to develop a theoretical insight on the socio-cognitive determinants of environmental decisions. This involves understanding how biases such as the illusion of control, framing effects, risk and time preferences, social comparison, decision processes, and motivation play a role in environmental settings.

2. Behavioral environmental mechanism design

Behavioral insights from psychological findings and economic theories of bounded rationality and social preferences can guide our design and adoption of green nudges and incentive compatible mechanisms to achieve optimal environmental outcomes. Interventions can bank on the interplay between intrinsic and extrinsic motivation, or the re-alignment of interests between players with initially conflicting interests via suitable modifications to framing, information or payoff structures. Further, experiments or randomized controlled trials serve as testbeds for policy recommendations.

3. Nonmarket valuation

Psychological biases in nonmarket valuations pose theoretical and practical challenges to welfare measurement and benefit-cost analysis. A widely cited example is the disparity between the willingness-to-pay (WTP) and willingness-to-accept (WTA) values. A step forward is to formulate welfare theories with novel and realistic assumptions about preferences, and to improve elicitation methods utilizing externally valid field or laboratory experiments.

4. International environmental cooperation

Despite the large game theoretic literature on transboundary pollution problems, much more needs to be done by the economics profession to promote effective and efficient international environmental negotiations and agreements. Strategic analysis, bounded rationality, as well as equity concerns all bear implications for transboundary pollution and international agreements including climate change mitigation and adaptation, for the political economy of environmental regulations and processes of collective decision making, as well as for economic growth and development. We are particularly interested in the Asian perspective and a global approach to tackling transboundary pollution.

Submission Procedure: This special issue is accepting submission. Contributors should submit their manuscript in English. Manuscripts should be submitted online at the following link: www.editorialmanager.com/ser/default.asp

Contributors should clearly indicate in the website that the paper is submitted to the Special Issue on Behavioral Environmental Economics. There is no submission fee.

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For further questions or inquiries, please visit www.worldscientific.com/worldscinet/ser or contact the corresponding guest editor(s) Jonathan Tan at jhwtan@gmail.com and Zhao Jinhua at jzhao@msu.edu.



CALL FOR PAPERS

THE SINGAPORE ECONOMIC REVIEW

Special Issue on Artificial Intelligence (A.I.) and Economics

The Singapore Economic Review will publish a special issue on Artificial Intelligence (A.I.) and Economics.

Guest Editors

Ekkehart Böhmer (Singapore Management University)

Ying Chen (National University of Singapore)

Wolfgang Karl Härdle (Humboldt-Universität zu Berlin)

Synopsis and Subject Coverage: Automation has been an essential force of economic growth during the last century thanks to technological progress. Nowadays, Artificial Intelligence (A.I.) automates many tasks from medical applications to sound or visual recognition. Designing A.I. implies developing machine learning algorithms for prediction, classification or clustering which can be used as a basis for the decision of a rational agent. In that sense, A.I. aims to build a complete homo economicus making artificial agents potentially relevant for normative economics. Potential research in designing such artificial agents ranges from algorithmic trading, over predictive model accuracy to regulating research questions. Considering the inherent goal of A.I. models is prediction accuracy, one faces a fundamentally different perspective on economic research compared to most empirical work in Social Sciences such as Econometrics that strives to solve causal inference problems.

In particular, this special issue addresses research questions in the fields of Digital Finance, Robo Advising, Crypto Currencies, Sentiment Analysis, Machine Learning in Economics, Modern Econometrics, and Computer-based Decision Rules.

Topics that are of interest to this Special Issue include, but are not limited to:

- The use of AI tools in High Frequency exchange operations
- Infrastructure regulation via A.I. implementations
- A.I. methods (deep learning)
- A.I. tutorial for Economists
- How non-economics objects via A.I. induce visible economics effects?
- Regulation of Crypto Currencies
- Image and Text analysis for price prediction (CEO faces)
- Supervised vs. unsupervised learning
- How to predict outlooks?
- Improving forecasting procedures
- Adaptive choice of economic stability intervals

Submission Procedure:

This special issue is accepting submission. Contributors should submit their manuscript in English. Manuscripts should be submitted online at the following link: www.editorialmanager.com/ser/default.asp

Please clearly indicate in the website's message box that the paper is submitted to the Special Issue on Artificial Intelligence (A.I.) and Economics. There is no submission fee.

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THE SINGAPORE ECONOMIC REVIEW



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The Singapore Economic Review is a general economics journal devoted to quarterly publishing the best policy and applied economics papers, in addition to high-quality theoretical pieces. Widely regarded as a leading journal in the Asia-Pacific, it has a long history of publication on economic issues impinging on Southeast Asia and the broader Asia-Pacific region. Issues analysed are not specific only to Singapore but rather highlights rigorous empirical work across diverse economic issues of the contemporary world. This includes (but are not limited to) macroeconomic, microeconomic, financial and social aspects, with special emphasis on economic problems related to Asian countries.

The journal also publishes papers of interdisciplinary nature and welcomes this academic interface. It keeps scholars abreast of developments in the economic literature. Among its distinguished contributors are **Edward Lazear, Murray Kemp, W.M. Corden, Charles Yuji Horioka, Henry Wan, Karl Shell, Robert Stavins, Naoyuki Yoshino, Herbert Grubel, Jan F. Kiviet, Jack L. Knetsch, Ng Yew-Kwang, Sir John Hicks, Sydney Caine, Ragnar Nurkse, H.W. Singer, J.C.H. Fei, G. Ranis, E.J. Mishan, Jerome L. Stein**. The journal has a wide international circulation; among the many subscribers are the libraries of Harvard University, Stanford University and University of Oxford.

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Conference of the Federation of ASEAN Economic Associations, Vietnam	25–26 November 2022

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Please contact the following members of the editorial team with your topic of interest via email and we will follow up with you. Thank you.

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