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# Building a Cohesive Society: The Case of Singapore's Housing Policies

Beatrice Weder di Mauro

## Key Points

- At independence, Singapore faced race riots and very poor initial conditions, but built a wealthy and cohesive society in only five decades.
- The provision of almost universal public housing combined with an ethnic residential quota system was instrumental in this achievement.
- The quota system was introduced in 1989 in response to evidence that ethnic groups tended to re-segregate. It was implemented mostly through the flow of new public housing to minimize the impact on exiting owners and to increase acceptance.
- Public housing in Singapore is affordable and attractive. In addition to the ethnic quota, it promotes social integration by mixing types of flats and income levels, providing quality shared public spaces and services and ensuring that no neighbourhood becomes disadvantaged and is left behind.

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## Introduction: A Case Study in Successful Social Integration

The reasons for the rise of populism in the West are still debated intensely. Besides educational, regional and structural divergences, a racial element and xenophobia are increasingly seen as contributing factors.<sup>1</sup> A common characteristic of any successful populist platform is that it plays the “we against them” theme. This tune may have nationalist or racist colours, exploiting deep-seated resentment and fear. By splitting society and creating social distress, it can even lead to social violence.

Singapore is an interesting case study on dealing with and overcoming ethnic and racial divisions. In its short history as an independent state, Singapore has succeeded in forging a cohesive society in a country that was born among race riots. Singapore is a multinational and multicultural society with three main ethnic groups: Malay (15 percent), Indian (seven percent) and Chinese (76 percent) (Strategy Group, Prime Minister's Office 2017). Social inclusion and overcoming racial segregation were key concerns of the government at independence and continue to be central pillars of policy today. Policy makers in Singapore are constantly stressing the need for sustained social policy to counter the natural tendency of people to segregate along ethnic lines. Deputy Prime

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1 See, for instance, Serwer (2017).

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## About the Author

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For eight years she served on the German Council of Economic Experts, the highest advisory body for economic matters in Germany and reporting directly to the German chancellor. She specializes in financial crises, international capital flows, sovereign debt and the architecture of the international financial system.

Minister Tharman Shanmugaratnam put it like this: “If we believe in social inclusion, if we believe in opportunities for all, we have to accept it doesn't happen automatically because of the invisible hand of the market or the invisible hand of society. It happens because you've got policies that seek to foster and encourage it.”<sup>2</sup>

This brief shows how Singapore's social integration policies, in particular the housing policies, have been instrumental in reducing residential segregation among ethnic groups. Even if such policies may not be transferred one-to-one to other countries, their success merits study.

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## Singapore's Poor Initial Conditions

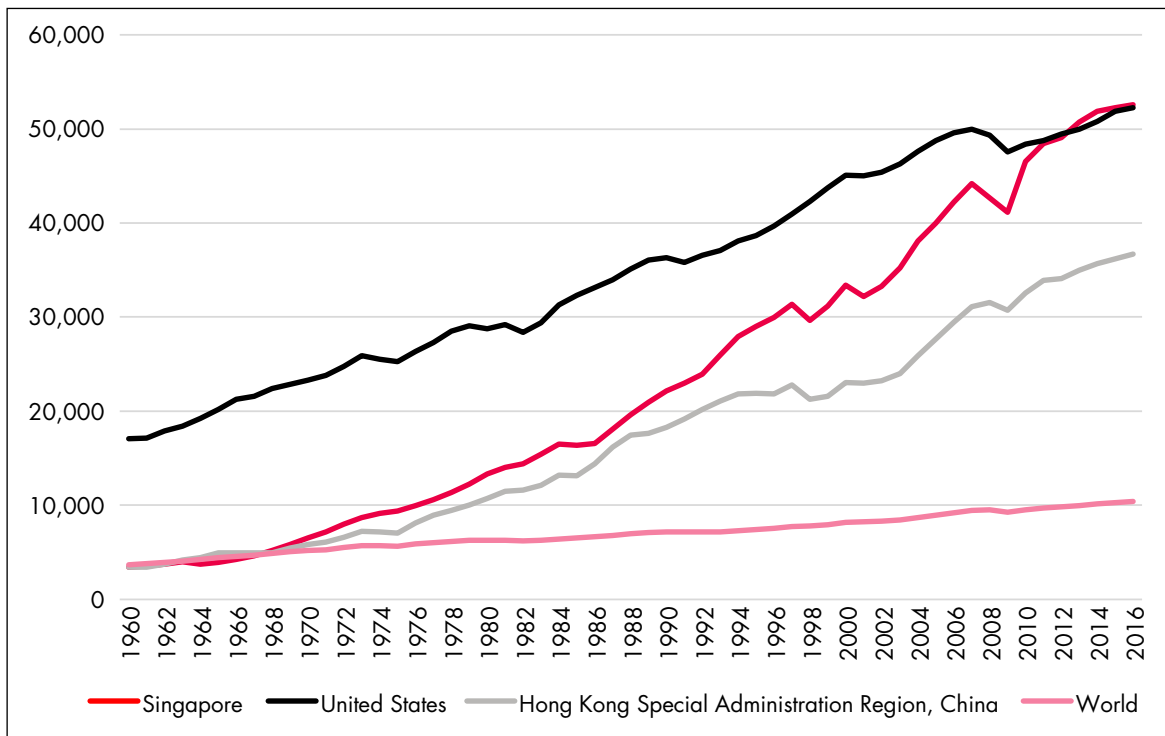
Certainly, Singapore's initial conditions were exceptional. Singapore is a small island lacking natural resources, apart from a strategic location at the crossroads of east-west trading routes. As opposed to other post-colonial nations, Singapore did not actively seek independence. Rather, it was expelled from the Malaysian Federation in 1965 in the aftermath of a series of racial riots that left hundreds injured and dozens dead. The main ethnic groups were living in largely segregated quarters, a legacy of the British colonial rule. The centre of the harbour city, where most of the population lived, was made up of overcrowded urban slums and squatter settlements without sanitation, lighting or ventilation, and which posed fire hazards and were breeding grounds for disease, crime and drugs (Urban System Studies 2015). The British colonial government had set up a housing improvement trust in 1927, but 20 years later it concluded that Singapore remained “one of the world's worst slums” and a “disgrace to a civilized community” (ibid., 1).

These disadvantages may have been a blessing in disguise: there was no resource curse with its challenges for institutional integrity; there was no backing or helping hand from a friendly

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2 Deputy Prime Minister Tharman Shanmugaratnam, interview by Stephen Sackur, 45th St. Gallen Symposium, May 7, St. Gallen, Switzerland, <http://happiebb.com/blog/2015/09/23/transcript-dpm-tharmans-interview-at-the-45th-st-gallen-symposium/>.

**Figure 1: Singapore's GDP per Capita over 50 Years (constant 2010 US\$)**



Data source: World Bank (2017).

neighbour; and it was clear that the government had no choice but to take matters into its own hands. The need for active urban planning and land management was also evident in the city-state, and so was the need for overcoming racial divisions.

The subsequent economic success story of Singapore is well-known but worth briefly reviewing. In its 50-year lifespan, Singapore managed not only to catch up with the frontier economies but surpass them in a number of ways. This success is in stark contrast with other countries that started at about the same level of income, as shown in Figure 1. Today, Singapore is often at the forefront. For instance, it has recently won the title of best location for start-ups, ahead of San Francisco, based on its educated workforce, strong infrastructure, advanced health care and high levels of safety.<sup>3</sup>

There were many factors that contributed to this development, but certainly a crucial element was that Singapore succeeded in

maintaining peaceful relations among the main ethnic groups. It implemented a distinct social policy mix: the state provided subsidized, attractive housing and social infrastructure and used them as tools to enforce residential integration of income classes and ethnicities.

## Singapore's Public Housing Is Large and Attractive

Compared to those of other developed countries, Singapore's household residential property assets are exceptionally large. Housing assets to GDP are double the ratio in the United States, and the ratio of housing assets to personal disposable income is almost triple the US figure (Chia and Tsui 2009, Table 1). Over the last 50 years, the Housing and Development Board (HDB), a government agency, has built almost one million public homes, which now make up 73 percent of the total housing stock (Sen 2017). Table 1 shows that the home ownership

<sup>3</sup> Singapore was ranked number one in a recent ranking of best locations for start-ups (Hynes 2017).

**Table 1: Indicators of Housing Stock and Assets**

	Total Housing stock (units)	HDB Housing (units)	HDB/Housing Stock	Resident Home Ownership	Total Housing Assets (in millions)	Housing Assets/Total household	Housing Assets/GDP
1970	305,833	120,138	39%	30%	—	—	—
1980	467,142	337,198	72%	59%	—	—	—
1990	690,561	574,443	83%	88%	—	—	—
2000	1,030,677	846,649	82%	92%	376,484	54%	228%
2010	1,156,732	898,532	78%	87%	689,351	49%	214%
2015	1,296,304	968,856	75%	90%	833,490	45%	212%

Data source: Author's own compilation based on Phang and Helble (2016) and Singapore Department of Statistics.

rate grew from about 30 percent to 90 percent in this time frame. In addition, more than 80 percent of the resident population live in houses bought from HDB (HDB 2018). The rental market is small. The government favours high ownership rates to foster the participation of residents not only as homeowners but also in their community.

A precondition for such large-scale provision of public housing was the adoption of the Land Acquisition Act 1966, which enabled the state to acquire the necessary land for development by the HDB. In parallel, the government also enlarged the land area through land reclamation. Over the course of 40 years, Singapore's total area has continued to increase and is now almost 25 percent bigger than it was in 1965 (Singapore Land Authority 2018).

Buying a new property from the HDB is attractive for several reasons. First of all, the flats are modern and well designed. At present, the HDB is introducing “smart living” in its developments, which includes readiness for connected home appliances control, efficient energy management and elderly alert systems (HDB 2014). Second, they are relatively, affordable thanks to various government schemes that secure financing (mainly through the Central Provident Fund, the mandatory pension fund) and a subsidy scheme for lower-to-middle-income groups. For instance, at the lower end, the price of a two-room flat, after grants, could be about 43,000 Singapore dollars (about US\$33,000) or 2.1 times the median

household income of applicants for such an apartment.<sup>4</sup> Third, they come with conveniences such as neighbourhood food centres, shopping facilities, good access to public transport, schools, recreational facilities and green spaces. This is because new towns are comprehensively planned to provide all these services and there are regular upgrading programs that prolong the lifespan of buildings and flats to maintain their value. The broader aim of upgrading includes fostering “stronger civic pride and a greater sense of ownership and belonging” through the provision of a well-maintained environment that is tidy and new (Urban Systems Studies 2015, 22).

Last but not least, HDB flats have been a good investment. HDB units may be sold on a secondary market after five years of acquisition. The secondary market is transparent and quite liquid; about 10 percent of the total HDB housing stock was resold in the last five years. The compounded annual rate of price increase was 8.4 percent over 20 years (1990 to 2010). Robust asset appreciation in the past was partly driven by strong economic and population growth, but in 2012, the Monetary Authority of Singapore grew concerned about an overheated housing market and implemented a series of macroprudential measures designed to

<sup>4</sup> The weighted average price of two-room flexi flats in non-mature estates in the November 2017 Build-To-Order exercise.

cool property prices.<sup>5</sup> Since 2013, resale prices have fallen, but still the compounded annual return for a long-time owner was 6.4 percent from 1990 to 2017.<sup>6</sup>

HDB housing assets are an essential part of retirement wealth in Singapore: the typical worker over 50 years old would have around 75 percent of retirement wealth in housing (McCarthy, Mitchell and Piggott 2002). In comparison, a US household would have only 20 percent of their retirement assets in housing (Chia and Tsui 2009, 3). In recent years, to enable and encourage households to unlock this housing equity, especially with a rapidly aging population, the HDB has introduced a number of schemes, such as lease buyback, subletting and cash bonuses for seniors who move to a smaller flat (Chia and Tsui 2009).

Note that the social safety net in Singapore is based on the principle of self-reliance and then family support before looking to community help and government assistance. Government transfers of income are carefully targeted, and in recent years benefits have been expanded, through various schemes such as wage supplements, health care and family assistance programs (Ministry of Finance 2015). This said, the emphasis remains on transfer of wealth — in the form of human capital, support for savings and housing — rather than through outright income transfers.<sup>7</sup> Overall, the provision of subsidized public housing is a key government transfer of wealth to a wide range of socio-economic groups.

Because buying an HDB flat is attractive, there is a need for an allocation mechanism. This system has been modified over time, but today it is essentially a ballot system with a number of priority schemes and eligibility conditions. Eligibility conditions for a new HDB flat purchase include being a Singaporean citizen, 21 years of age or older, owning no other property overseas or locally and being below an income ceiling (for example, for a four-room flat the maximum monthly household income is 12,000 Singapore dollars, about US\$8,000;

higher incomes have to buy on the private market where prices are significantly higher).

Finally, when someone is buying a flat from the HDB, there is no choice to segregate by ethnicity or income. Flats of different sizes are deliberately mixed in every building and quotas for ethnic groups apply.<sup>8</sup> The latter is the most significant policy of residential desegregation.

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## Singapore's Housing Provision as a Tool for Ethnic Integration

The quota policy was introduced in 1989 in response to the finding that the major ethnic groups tended to re-segregate into more homogenous residential areas, after the initial mixing that had been accomplished in the course of replacing slum dwellings by HDB housing. Chih Hoong Sin (2002), for instance, shows evidence of a marked deterioration in measures of evenness of residential distribution of ethnic groups between 1980 and 1990.<sup>9</sup> The government was concerned that the increasing racial concentration would breed distrust and rekindle conflict. Based on the then-observed trend, it predicted that the proportion of Malay in a specific town would exceed 40 percent, but the share might be much higher since “once a critical point is passed racial groupings accelerate suddenly” (minister of national development cited in Wong 2014).

The quota policy in principle sets a limit on the share of Chinese, Malay and Indian residents in a certain area.<sup>10</sup> Such limits apply at block level (a block is a multi-storied apartment building) and at the neighbourhood level, i.e., clusters of HDB blocks comprising 4,000 to 6,000 units. For example, the quota for ethnic Malay at the

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5 These measures included a cap of 35 years on the tenure of housing loans granted by financial institutions, tighter loan-to-value limits and higher minimum cash down payments.

6 Based on Q4 data (HDB 2017).

7 Koh et al. (2014) compare social expenditure policies of Singapore with Scandinavian countries. Singapore's social expenditures are much lower (seven percent of GDP compared with about 30 percent) and more than 40 percent is in housing benefits.

8 Note that ethnicity is easy to establish since it is reported on residents' identity card. Mixed couples can have two races but only the “first” one counts for the purposes of the quota. This means that mixed-race couples can effectively choose the race of their children. Not surprisingly, they may choose the one that promises the child more advantages. See, for example, The Asian Parent (2017).

9 Table 2 in Sin (2002) shows the D-value of different ethnic pairings rising significantly in some locations and types of flats.

10 In 2010, a limit was also introduced for non-Malaysian permanent residents.

neighbourhood level is 22 percent and at the block level 25 percent. These limits are significantly higher than the share of Malay in the total population but may be binding in neighbourhoods that have been historically concentrated.

In the primary market, where newly built HDB units are sold, the quota can be easily applied by the allocation mechanism and by controlling the shares of buyers from different ethnic groups. A member of an ethnic group will simply not be able to buy an apartment from the HDB in a block or neighbourhood where the quota has been reached. On the secondary market, there are constraints on the resale if the limits have been reached for a specific ethnicity: sales to this constrained ethnic group are not allowed unless the seller is from the same ethnic group. Note that this resale rule contains a grandfathering element that applies even if the group started above quota. For example, if the Chinese quota in a block has been reached, a Malay owner cannot sell his flat to a Chinese buyer, because this would increase the segregation. However, a Chinese seller could sell to another Chinese individual because this would leave existing segregation unchanged, even though the Chinese quota is full.

Clearly, such a quota is intrusive and potentially unpopular. Furthermore, it can severely affect property values in constrained neighbourhoods, depending on how the quota is implemented. The maximum impact occurs if the quota is applied to the existing housing stock; the smallest impact occurs if it is applied only to new housing. In Singapore, the quota was introduced for new housing flow and only partly to the resale flow (due to the grandfathering explained above). Thus, the existing stock was not directly affected; there were no evictions nor attempts to move existing owners out of ethnically concentrated neighbourhoods. The cost of proceeding like this is that the change in the residential ethnic composition in concentrated neighbourhoods might be slow, thus limiting the impact of the quota. But at the same time, this form of implementation also reduces its impact on incumbent owners and on their locational preferences. With a gradual policy, the number of households that were affected at the time of the introduction of the quota was minimized. The main driver of ethnic-residential mixing was left to new development, and given the attractiveness of such housing, the ethnic quota may be easier to accept as one more of the various eligibility criteria.

Evidence of the success of the ethnic-mixing policy can be found in the evenness of residential distributions among ethnic groups. Sin (2002) shows that compared with other advanced countries, D-values, a measure of (un)evenness, are remarkably low in Singapore for all ethnic pairings. The government of Singapore regularly recognizes and emphasizes the importance of sustaining this policy. For instance, the deputy prime minister characterizes the quota policy as having been the most intrusive, but also the most effective to integrate society.<sup>11</sup> He has called the composition of neighbourhoods “the secret sauce” because it maximizes interaction, which means sharing of everyday experiences, sharing meals, playgrounds and primary schools. This statement also clarifies that the ethnic quota system is only one avenue of the social integration policy. Other avenues consist of mixing small and large flats to ensure mixing of income levels, and providing high-quality shared public spaces and services in every neighbourhood. In addition, the constant rejuvenation is to ensure that estates do not decay and get left behind. The government has a policy that there should be no disadvantaged at-risk neighbourhoods in Singapore (Yong 2015).

The quota system is not without costs. As with any quantitative constraint that is binding, it will have a distortionary effect on prices. Maisy Wong (2014) quantifies the distortionary impact of desegregation policies using resale transaction values in constraint and non-constraint blocks. She found the quota has a price effect of three percent to five percent and that fewer units are sold in constrained blocks. Such distortionary effects need to be weighed against the benefits of the policy, which are of course difficult to quantify. At any rate, the acceptance of the benefits of the quotas appears to be high, although there is some discussion on whether ethnic segregation has been overcome or would still prevail if the quota was abolished. Some argue that quotas may not be needed any more due to the increasing number of inter-ethnic marriages and Singapore becoming an increasingly racially ambiguous and cosmopolitan society (Li 2011). Others point to the experience of segregation in the United States, the United Kingdom and France, and conclude that it would not be wise to abolish the quota system (Zareen 2016).

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11 Deputy Prime Minister Tharman Shanmugaratnam, interview by Stephen Sackur, 45th St. Gallen Symposium, May 7, St. Gallen, Switzerland, <http://happiebb.com/blog/2015/09/23/transcript-dpm-tharman-interview-at-the-45th-st-gallen-symposium/>.

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## Conclusion

In its short history since independence, Singapore has experimented with a variety of economic and social policies. In many ways, the city-state was a perfect laboratory, because it started from almost zero and everything had to be done at once. The housing policy was instrumental in achieving better living conditions and at the same time was used as a tool for fostering social integration. Many observers dismiss Singapore's success because they attribute it to the strong paternalistic leadership of Lee Kuan Yew, the country's first prime minister. But this cannot be the full story. Rather, as this policy brief has shown, the government deployed a finely balanced mix of incentives and constraints. On the one hand, it provided attractive, highly subsidized housing; on the other hand, it adopted eligibility criteria and ethnic quotas. Also, it is important to note that the quota was not implemented in a draconian fashion, but rather with a gradualist approach applying to new builds and only partly to the resale market.

One could ask if the Singapore experience can be exported to other countries. There are certainly elements of the social integration policy that will be impossible to reproduce in other countries, starting with almost universal public housing provision. But some elements of the policy could be transferred. For instance, the importance of mixing apartment sizes, the high attention paid to the provision of attractive shared public spaces and services, the constant reinvestment in and rejuvenation of infrastructure and a "no neighbourhood left behind" policy. At any rate, the case of Singapore merits study.

### Author's Note

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# CIGI PUBLICATIONS



## Did Trade Liberalization Go Too Far? Trade, Inequality and Unravelling the Grand Bargain

*CIGI Paper No. 168*  
*James A. Haley*

This paper reviews the history of trade liberalization and the effects of freer trade on US labour market outcomes. It is motivated by the rise of economic nationalism, evident in the United States and elsewhere, which threatens the international “architecture” of trade, economic and financial arrangements that has been erected over the past 70 years. The paper argues that these effects do not necessarily imply that trade went “too far.” Addressing the challenges posed by political populism and economic nationalism requires a consensus on domestic policies and changes to the international architecture that facilitate this policy framework.



## Has Global Trade Liberalization Left Canadian Workers Behind?

*CIGI Paper No. 163*  
*Jeff Rubin*

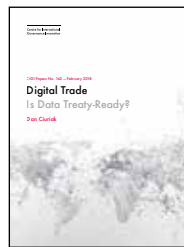
How has the Canadian economy adjusted to global trade liberalization over the last several decades? This paper summarizes a range of developments in Organisation for Economic Co-operation and Development economies associated with trade liberalization and then examines the extent to which they have been present in the Canadian economy. It then explores to what extent these trends have been present in the Canadian economy and assesses to what extent they have been mitigated, if at all, by the tax and transfer system.



## Small Businesses and Sustainability Innovation: Confronting the Gap between Motivation and Capacity

*CIGI Policy Brief No. 127*  
*Sarah Burch*

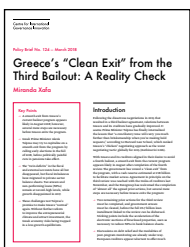
Smaller firms tend to perceive sustainability to be more important, both personally and to their company, than do larger firms. Actions that address social issues appear to be more important, and more likely to be implemented, than do actions addressing environmental issues. More effective policies to accelerate sustainability transitions in small businesses must be tailored to the capacity constraints specific to small and medium-sized enterprises and their perceptions of sustainability benefits.



## Digital Trade: Is Data Treaty-Ready?

*CIGI Paper No. 162*  
*Dan Ciuriak*

The knowledge-based and data-driven economy represents a new stage in the evolution of the economy, with transformative impacts on how goods and services are developed, produced, traded across borders, distributed and consumed. Data is the essential capital of this new economic age, as it enables the development of artificial intelligence, which drives the transformation of how technology transforms. This paper argues that data is not treaty-ready and draws the conclusion that Canada, which has much at stake in claiming a role in the data-driven economy, should be cautious about entering into international commitments, the implications of which are as yet unclear.



## Greece's “Clean Exit” from the Third Bailout: A Reality Check

*CIGI Policy Brief No. 124*  
*Miranda Xafa*

With Greece and its creditors aligned in their desire to avoid a fourth bailout, a smooth exit from the current program appears likely in August after completion of the fourth review; however, several more steps are necessary before Greece exits the program. A number of challenges test Greek Prime Minister Alexis Tsipras's promise to make Greece “normal” again. Without further reform to improve the entrepreneurial climate and attract investment, the Greek economy risks being trapped in a low-growth equilibrium.



## Engaging Canadians in Flood Risk Management: Lessons from the International Community

*CIGI Policy Brief No. 121*  
*Jason Thistlethwaite, Daniel Henstra, Andrea Minano and Sarah Wilkinson*

In recent years, unprecedented flooding has caused billions of dollars in damages across Canada. This policy brief scans international initiatives designed to foster flood risk awareness, engage the public and encourage behavioural changes that support flood risk management. Locally appropriate public engagement campaigns that resonate personally with citizens are most effective in motivating protective behaviour. The policy brief concludes with three policy recommendations on how to better engage Canadians in flood risk management.



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## About the Global Economy Program

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Through its research, collaboration and publications, the Global Economy Program informs decision makers, fosters dialogue and debate on policy-relevant ideas and strengthens multilateral responses to the most pressing international governance issues.

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## About CIGI

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## À propos du CIGI

Au Centre pour l'innovation dans la gouvernance internationale (CIGI), nous formons un groupe de réflexion indépendant et non partisan doté d'un point de vue objectif et unique de portée mondiale. Nos recherches, nos avis et nos interventions publiques ont des effets réels sur le monde d'aujourd'hui car ils apportent de la clarté et une réflexion novatrice pour l'élaboration des politiques à l'échelle internationale. En raison des travaux accomplis en collaboration et en partenariat avec des pairs et des spécialistes interdisciplinaires des plus compétents, nous sommes devenus une référence grâce à l'influence de nos recherches et à la fiabilité de nos analyses.

Nos programmes de recherche ont trait à la gouvernance dans les domaines suivants : l'économie mondiale, la sécurité et les politiques mondiales, et le droit international, et nous les exécutons avec la collaboration de nombreux partenaires stratégiques et le soutien des gouvernements du Canada et de l'Ontario ainsi que du fondateur du CIGI, Jim Balsillie.

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