The Contrast and Effectiveness of Policies in Response to COVID by China and Australia Throughout the Pandemic

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Abstract

The infamous virus known as COVID-19 is one that scoured the globe and plagued the global population since its discovery in December 2019. This review article will explore the variations in policy responses to the COVID-19 pandemic between China and Australia. This will outline how these two contrasting economies of different sizes and geographic locations have tackled the pandemic.

1. Introduction

Having spread to 230 countries with nearly 700 million cases and 7 million deaths, according to WorldOMeter, the COVID-19 pandemic is now generally considered to be a major historical event lasting from 2019 to 2022. Although some countries are still affected by the virus itself, most are recovering from the economic and social effects of the pandemic.

Largely, the economic and social responses implemented to mitigate the COVID-19 pandemic were dramatically shaped by the various perspectives, cultures and preparations that countries held. Although there are articles and publications that go in dept regarding this variation in response, such as in the book by Greer, King, da Fonseca, & Santos, 2021, there is no recent analytics regarding the final effects and changes in policy, especially a comparison between China and Australia (country not continent), throughout the pandemic. Both countries had highly contrasting responses, as a result of their ideological differences, to the pandemic yet both had an initial v-shaped recovery that followed their policy changes.

As such, this essay will focus on the overarching concepts and momentous policies that Australia and China have maintained in their response to the pandemic as it is now largely considered to be over. In order to properly understand the changes and effectiveness of different responses, they must be analyzed and compiled at their culmination. It is hypothesized that strict lockdowns and social distancing proved practical prior to the development of an effective vaccine and appearance of the deadlier variants of the virus, whereas movement towards restoring economic activity and releasing restrictions was more efficacious after the achievement of herd immunity and evolution of less deadly variants.

Utilizing resources such as the aforementioned book by Greer et al., projects such as the Oxford COVID-19 Government Response Tracker and compilations of articles examining different policies, such as the work by Giliberto Capano et al., the different policies and their evolution can be formatted and analyzed.

As stated previously, China and Australia will be compared in terms of their economic, social and health policies throughout two main stages of the pandemic with the

goal to examine the best courses of action taken by both countries in different times.

2. Literature Review

Through a critical examination of COVID responses with hindsight, this study is important to economists as it allows for the interpretation and understanding of economic policies implemented throughout the COVID-19 pandemic and their subsequent effects and effectiveness.

Some articles examine certain elements of implemented policies, such as labor market interventions (Elgin, Williams, & O. Yalaman, 2022) or relationships between employers and employees (Spurka, & Straub, 2020). Although these articles examine the issues regarding labor, as seen in their title, they are examinations of statistics but do not focus on comparing between the countries, especially not Australia and China directly. The former confirms the "importance of strong labor market institutions in dealing with public health crises, indicating the immediate need for building and strengthening strong industrial relations policies and institutions." through a recession model. The latter discusses the various statistics surrounding topics such as the 'gig economy' and confirms that "flexible employment workers will become more aware of the impact of their working conditions on their health, work and career development, potentially leading to empowerment of workers…" While both articles are of great use regarding the analysis of the labor market, it holds little significance on the topic of country comparison considering the   focus on labor and somewhat generalization via statistics.

The book by Greer, King, da Fonseca, & Santos, 2021 and the Oxford COVID-19 Government Response Tracker project both extensively list the policies of varying countries. The former also goes into a critical analysis of policies on a global scale, separated first by continents and then by country. This structure provides deepinsight into the political and social responses to the pandemic. Due to its detail, it is very lengthy at a staggering 663 pages. The latter, on the other hand, mainly operates on GitHub instead of being a direct research article to read and can be rather difficult to navigate, especially for unfamiliar personnel. These projects can be incredibly useful but can be too intricate and do not draw a definitive comparison between China and Australia specifically.

Lastly, most articles published were done so prior to 2022. For example the work by Capano, Howlett, Jarvis, Ramesh, & Goyal, 2020 illustrates the "characteristics of a 'standard national pandemic response" and analyses (in)adequacies of preparation for such events while critiquing leadership,

blindspots and organization that shaped policy responses. A different article by Wahaibi, Manji, Maani, Rawahi, Harthy, Alyaquobi, Al-Jardani, Petersen & Abri, 2020 investigates the different responses to non-pharmaceutical interventions through the use of "time-varying reproduction number…"

These two articles were both published in 2020. Both are comprehensive and insightful regarding their respective topics but they do not reflect a complete picture of the policy responses (and their impacts) to COVID as it was before the general 'finalization' of the pandemic. As such, a comprehensive insight into the longer-term effects and responses to the policies are not examined, potentially creating a short-term analysis bias for the author, reader or future policymaker.

While these articles are all of excellent quality, there are currently no articles regarding the comparison between Australian and Chinese policy responses with the hindsight that is available. Furthermore, the constantly evolving situation of the pandemic may have caused many of the existing articles to become outdated (although not completely). Finally, the contrasting nature of policy response and ideologies of Australia and China are interesting with distinct results and the absence of completely up-to-date articles that explores this specific issue is absent which provides an opportunity to examine and list the changing nature of policies throughout COVID.

3. Methodology

There are websites and projects on the internet, such as the Policy Tracker by the IMF or the Oxford COVID-19 Government Response Tracker which provides an up-to-date recount of all the policies made by all countries on a global scale. This will provide us with updated changes of the policies within China and Australia.

This final assessment of the policies will be separated into two distinct sections in chronological order. The first part is the time when COVID was more deadly but less contagious (Alpha, Delta, etc variants) and the second section is the opposite where COVID was more contagious but less deadly (Omicron, etc variant).

Throughout these two time periods, statistics such as GDP growth, infection rate, fatality rate, Inflation and Unemployment Rates, Nominal Interest Rates, Purchasing Power Parity changes, etc will be compared to understand the effectiveness of respective policies.

4. Data Analysis and Results

4.1 COVID Variants and Characteristics

Since its discovery in 2019, the COVID virus itself has mutated multiple times. In chronological order, the most prominent variants include the Alpha, Beta, Gamma, Delta and Omicron variants. These either are or were classified as Variants of Concern (VOCs) by the World Health Organisation (WHO).

Although all variants of the same virus, their characteristics regarding infectivity, severity (symptoms wise) and fatality vary significantly. The infectivity is how contagious the variant is. Although all are very contagious, each one is more so than the last, Omicron is stated to be the most contagious with Alpha being the least (Katella, 2023). Inversely, the virus became less severe and fatal as it evolved (Katella, 2023). In fact, the "risk of ICU admission and death was higher during the Alpha period compared to the delta period…" after accounting for age and vaccination status (Florensa, et al. 2022).

Nonetheless, as Omicron is a "highly contagious variant… have caused surges in COVID-19" and is a "less severe disease than the delta variant", the timeline will be separated into two sections: pre-Omicron (Alpha, Beta, Gamma and Deta strains) and Omicron & 'post-Omicron'.

4.2 China's Social Response to COVID

The Chinese Communist Party (CCP) has maintained a very strict stance on the containment of COVID, now better known as the Zero-COVID policy. Ignoring the initial suppression of COVID in November 2019 (Ma, 2020) (Davidson, 2020), China imposed large-scale mobility restrictions, social distancing and multiple levels of quarantine when entering. (IMF, 2021)

However, in mid-February 2020, internal activity restrictions regarding essential sectors, industries, regions and populations were removed with the intention of reopening the economy. This continued until most businesses and schools were resumed on a national scale with few restrictions left but external restrictions remained very strict. (IMF)

To prevent outbreaks, restrictions on localized hotspots, mass quarantine sites, testing and individualized health QR codes were implemented. On the 2021 Lunar New Year, strict testing and quarantine mandates were implemented while inter-city travel was discouraged. (IMF)

After the end of the first wave of COVID in China (around April 2020), more outbreaks occurred. These outbreaks were all quickly halted through the intense use of PCR testing, contact tracing, travel restrictions and lockdowns. For example, from July to August 2021, China had 11 Delta outbreaks and 1,390 total confirmed cases (Zhou, et al. 2021). This approach of elimination was very successful having only two COVID deaths post-containment (An, et al. 2021).

Unfortunately, the virus mutated into the Omicron variant in November 2021 and the Zero-COVID policy of China was rendered rather ineffective against the extremely contagious nature of the strain. The following few months of 2022 had the largest outbreak since 2020, transitioning from "fewer than 100 daily infections… to more than 1,000 per day." (Xi says China to 'stick with' zero-COVID strategy, 2022).

Nearing the end of 2022, there was a reduction in restrictions such as the reduction of the quarantine period for close contacts and removing penalties for airlines bringing in positive cases. However, an unfortunate house fire in Urumqi, causing ten deaths, due to lockdowns in Xinjiang, acted as a catalyst for protestors to rebel against the Zero-COVID policy. This was known as the A4 Revolution or White Paper Protests (protestors holding up blank sheets of paper).

By December 2022, most restriction policies were lifted as lockdowns were reduced and COVID positive individuals were allowed to stay at home instead of at a hospital or quarantine site. As a result, "half of China's cities experienced a peak in infections between 10 December and 31 December [2022]." (Lewis, 2023). Visual reports state that morgues and cremators have lines of multiple hearses (Peter, Diviggiano, 2022).

4.3 Australia's Social Response to COVID

Australia consists of seven different states: New South Wales, Victoria, Queensland, Northern Territory, Australian Capital Territory, South Australia, and Western Australia.

Australia's first confirmed COVID case was on the 25th of January 2020 (IMF, 2021) in Victoria (Hunt, 2020). This led to the beginning of COVID within Australia with a subsequent total of three waves. The first two mainly consisted of Alpha and Beta while the third contained Delta and Omicron.

Similar to China's response, Australian borders were closed on the 20th of March 2020 (Burke, 2020) with mandates on quarantine for all non-residents of Australia

(Schneiders, 2020). Many states also restricted inter-state transport (Marshall 2021). On a national scale, lockdowns were mandated, social distancing was implemented and non-essential services were closed (ABC News, 2021). However, non-essential services did not include most businesses and positive COVID cases initially increased sharply to a consistent 350 per day in late March where it began to decline (Australian Government).

The second wave began in Victoria in mid-2020 and was more localized in Melbourne. However, the virus was deadlier and more contagious than the first wave, forcing Victoria into another lockdown that ended in late 2020 (Butt, 2020).

The third wave of COVID started in June 2021 and was prominent in New South Wales, especially in the Eastern Suburbs (Nguyen, 2021). Lockdowns were mandated for local government areas – specified hotspot areas (Nguyen, 2021). This continued until the confirmed cases per day peaked at 1,218, surpassing all previous records and was the wave breaking the thousand death toll mark (Cox, 2021).

From the 1st of November 2021, Australian borders were slowly opened to certain individuals (Marsh, 2021). However, this led to the introduction of the Omicron variant on the 28th of November (Vidal, 2021) and many more imported cases. Ironically, most restrictions were then lifted in December 2021 with the 90% vaccinated herd mentality (Westcott, McGee, 2021) leading to substantial rises in positive cases and causing New South Wales to have "one of the world's highest infection rates." (Kelly, et al. 2021)

4.4 China's Economic Response to COVID

Macroeconomic policies are made up of fiscal and monetary policies. The former being policies implemented by the government and the latter being more regarding the central bank.

China's fiscal previously peaked around 24 trillion Chinese Yuan (CNY) annually after 2019 (Trading Economics, 2023) [Figure 1]. This spending includes activities such as epidemic prevention and control, production of medical equipment (such as the famous Huoshenshan Hospital, built in 7 days in early 2020), disbursement of workers, tax relief, social security contributions and public investments (IMF, 2021).
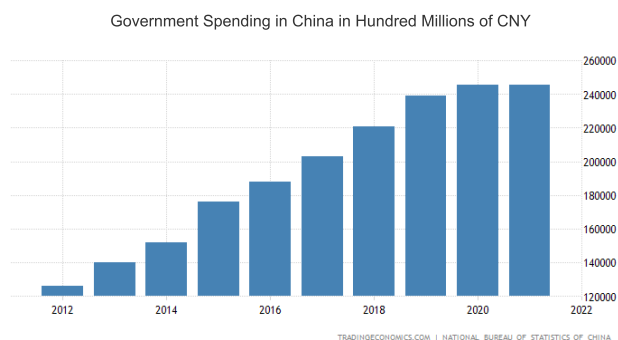

Figure 1.

However, unlike most Western countries, there were no direct payments from the government to the household. These payments, as seen in other countries, were injected into the economy to stimulate economic growth. China did not need this stimulation as its economy reopened much faster and earlier than other countries, allowing domestic production and purchases to be made.

China's central bank, the People's Bank of China (PBC), implemented very thorough and comprehensive monetary policies, similar to central banks globally. This includes both conventional and unconventional monetary policy.

Regarding conventional monetary policy, the nominal interest rate of the PBC dropped from around 4.3% in 2016 to 3.65% in the status quo [Figure 2]. Although not as extreme as some other countries, this is completely unprecedented as the interest rate remained at 4.3% until 2019, when COVID struck. The required reserve ratio for big banks experienced a similar trend: having stayed at approximately 17% since 2016 but started dropping in 2018 and is now at 11% [Figure 3]. Finally, via open market operations, there was more liquidity injected into the banking systems to encourage lower interest rates.
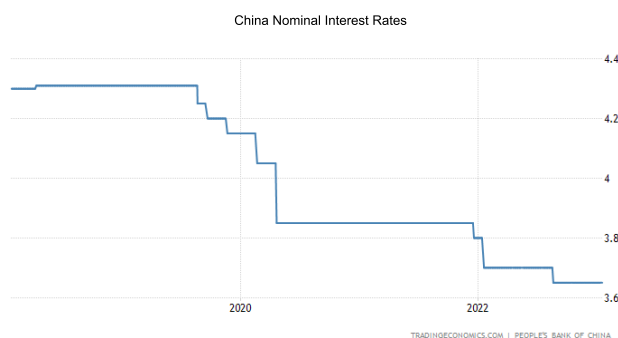

Figure 2.
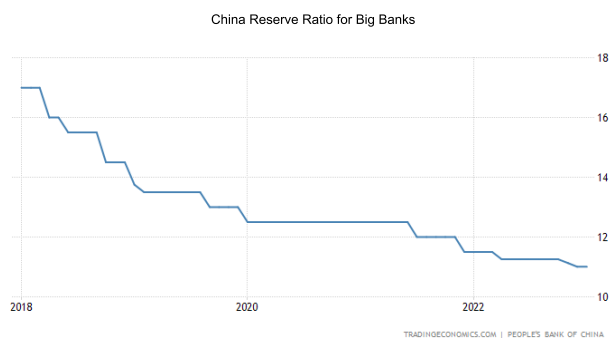
China Reserve Ratio for Big Banks

Figure 3.

Unconventional monetary policy was also implemented. This includes policies such as the expansion of re-lending and rediscounting facilities, reducing reverse repurchase agreement rates, expansion of "policy banks' credit lines" to small & medium enterprises, and the introduction of new methods in lending to small & medium enterprises.

To conclude, China has implemented very expansionary fiscal and monetary policies, with the intention to stimulate the economy domestically. However, exports and imports were still heavily restricted and no extra cash payments were made directly to households.

4.5 Australia's Economic Response to COVID

Australia has also adopted expansionary macroeconomic policies and is a good example of what most Western countries did in response to the pandemic.

Australian fiscal spending dramatically increased, mostly due to previousJobseeker and Jobkeeper programs. The former is social security payment whereas the latter involves subsidizing businesses of their wage costs and paying employees their usualwages while in lockdown. This was to put the economy into a "deep freeze" while creating the opportunity to resuscitate it immediately once the pandemic slowed down.

Security payments were increased by AUD50 per fortnight and two supplements of AUD550 were also injected (total injection of AUD1100). There was also a heavy investment into affordable housing (AUD 2 billion), childcare services (AUD1.7 billion) and Tax rebates (AUD1080 per person for low and middle-income earners). The culmination of all COVID fiscal responses in Australia was the largest ever, totalling approximately AUD337 billion leaving the government with multiple years of budget deficits.

Monetary policy was also extreme. The Australian central bank, the Reserve Bank of Australia (RBA), decreased nominal interest rates significantly. Previously at 1.5% since mid-2016, the interest rate decreased to 0.01% at its lowest point [Figure 4]. The RBA also purchased AUD 350 billion worth of privately owned government securities to inject more liquidity into the economy. Australia does not have Required Reserve Ratios, abolished in 1988.

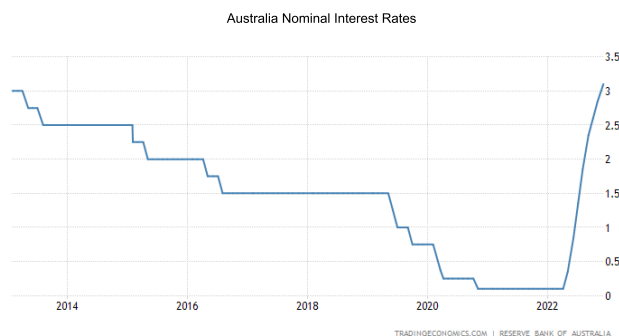Australia Nominal Interest Rates

Figure 4.

As the interest rates were already low before the pandemic, reducing them to 0.01% had a less significant effect than expected due to diminishing returns. As such, the RBA utilized unconventional monetary policy. This does, technically, include the government securities purchased. Furthermore, a Term Funding Facility was also implemented, providing large, long term and inexpensive loans for small and medium enterprises. This injected another AUD 188 billion into the economy. In total, approximately AUD550 billion was injected into the economy.

4.6 China's COVID Statistics

Prior to Omicron, China had very low numbers of positive cases and deaths: the end of the outbreak brought the "basic reproduction number" of the virus to near zero (Tian, et al. 2020). Nearing the end of 2022 into early 2023, China has had a total of 500k positive cases and 5k deaths, most of which are in the beginning and current stages of the pandemic. This leads to a 0.036% (2sf) infection rate and a 1.0% (2sf) fatality rate (WorldOMeter, 2023).

China's GDP growth rate was a continuous and steady 2% but suddenly dropped in Q1 of 2020 to -10.1% but recovered swiftly in Q2 of 2020 to 11.6%. This was due to the initial nationwide lockdowns and then the easing of domestic restrictions. However, since then, it then fluctuated between 3.9% and -2.7% until Q3 of 2022 due to the constant outbreaks, and subsequent lockdowns throughout the country. With the sudden rise in Omicron cases, Q4 of 2022 has had a 0% growth rate (Trading Economics) [Figure 5].
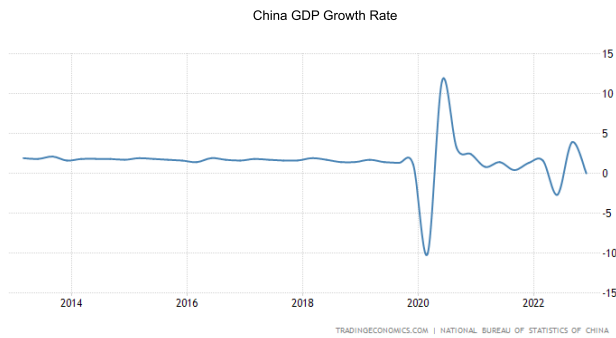
China GDP Growth Rate
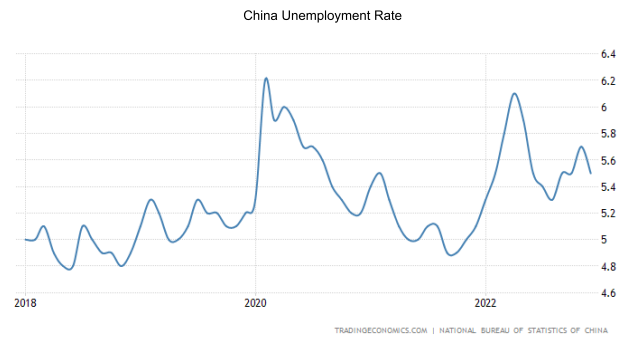

Figure 5.

China Unemployment Rate

Figure 7.

China's inflation rate has been rather unstable, even prior to COVID. Starting at about 2%, inflation skyrocketed to nearly 6% in 2020, paralleling the lockdowns and reduced supply of goods and services (G&S) within the economy. It then crashed into negative percentages in 2021 as G&S were produced and surpluses were exported on a limited basis due to the restrictions of other economies. However, there has been a steady increase to 1.6% as the global economy started reopening from the effects of COVID (Trading Economics) [Figure 6].

China Inflation Rate

Figure 6.

Despite COVID in 2019, China's unemployment rate (UE) was at a constant 4% but spiked to 5% in 2018. UE spiked again in early 2020 to 6.2%, again matching the mandated lockdowns. It then decreased to about 4.9% in late 2021 but spiked again in mid-2022, reflecting the protests and Omicron variant spike in infections (Trading Economics) [Figure 7].

4.8 Australia's COVID Statistics

Australia, on the other hand, had many more positive cases and deaths, being the country with the 14th most total cases. There have been a total of 11.3 million positive COVID cases in Australia with 18k deaths. This results in a 44% infection rate (2sf) and a 0.16% (2sf) fatality rate (WorldOMeter, 2023).

Prior to COVID, Australia's GDP growth rate was always positive, ranging between 0% and 1.5%. However, Q1 of 2020 saw the first negative quarter since the Global Financial Crisis (GFC) at -0.2%. This dipped further in Q2 at -7% matching the overwhelming presence of COVID in the first wave and was classified as a recession, the first since the GFC. There was a significant V-shape recovery in Q3 at 3.5% which slowly descended back into a negative quarter in Q3 of 2021 at -1.8%, matching the third wave of COVID but then returned to positive (Trading Economics) [Figure 8].

Australian GDP Growth Rate

Figure 8.

Australia maintained a rather sustainable rate of inflation, between 1% and 2%. This changed at the beginning of COVID when G&S were no longer being purchased due to lockdowns and inflation plummeted, causing deflation at -0.3%. However, there has been a steady increase in the inflation rate with its peak at 7.3%, quite unprecedented, unsustainable and unseen before. This matches the slow

reopening of the domestic economy in combination with the, in hindsight, excessive injections by the government and RBA. (Trading Economics) [Figure 9]
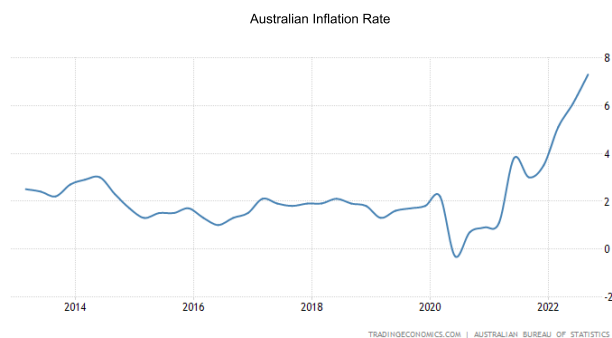
Australian Inflation Rate

Figure 9.

The Australian UE hovered between 5% and 6% prior to COVID. This, however, spiked in mid-2020 to 7.5% as firms lost confidence in revenue streams and employees were forced to remain home. Since then, there has been a steady decline in UE as government programs, such as Jobkeeper and Jobseeker, helped alleviate the financial stress of businesses and households. There was another minor spike in late 2021, matching the third wave of COVID and its extreme contagiousness. In late 2022 to early 2023, Australia is experienced an extremely low 3.5% UE. (Trading Economics) [Figure 10]
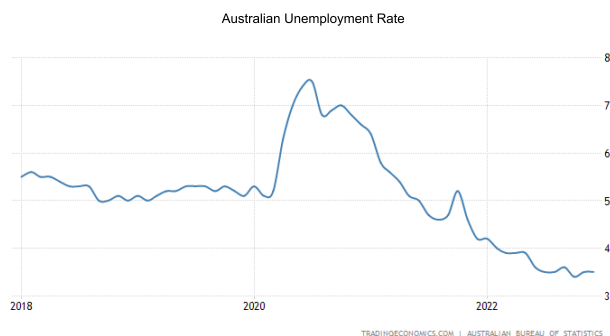
Australian Unemployment Rate

Figure 10.

5. Discussion

Considering all factors, China handled the COVID-19 pandemic very well in the earlier stages. When the virus was more fatal but less contagious, the strict and imminent lockdowns significantly reduced the overall infection and fatality rate. It also allowed for a very swift economic recovery, as seen in the V-shaped recovery after Q1 in 2020, by reopening domestic production. This somewhat contrasts Australia's initial response: a somewhat lax response in the classification of 'non-essential' and 'essential' services

caused a much larger spike in infections and UE, although GDP growth decreases were similar.

However, in the later stages of the pandemic, around when the Omicron stain developed, China had a much less effective response. The low vaccination rate and civil unrest caused by such stringent ideologies led to a sudden spike in both infections and death due to the extremely contagious nature of the strain as seen in the status quo. Australia's constant methodology of herd immunity and expansionary macro policy not only sustained a lower fatality rate but also sustained the economy and led to an earlier and safer reduction of restrictions. There are, unfortunately, some issues in hindsight regarding the massively expansionary macro policy. This is mainly the breaching of the Natural Rate of Unemployment (approximately 4.25%) and the high levels of inflation.

6. Conclusion and Future Work

For the more deadly but less contagious strains of the virus, China's general methodology of lockdowns is much more effective at sustaining the country, its population and its economy. On the other hand, more contagious strains are better dealt with Australia's herd immunity approach accompanied by some expansionary macroeconomic policies.

However, the pandemic itself could have led to unprecedented events in the future. Whether this be some structural flaw that has developed yet unidentified or further effects of responses, it is still unknown the long term results. On a side note, China's COVID reaction can be seen as a catalyst for the collapse of many large real estate firms within China causing the "Chinese property sector crisis". An event which may hold carry-on effects until 2026 or even later.

This essay is rather limited. Having been written by a student, practical experiments and complex calculations could not be done. Rather, it is a review article that pieces together various moments of information throughout the pandemic.

As such, for future reference, having prior experience, knowledge and understanding of both constructing a research article and the event itself would, obviously, be beneficial. Furthermore, a higher degree of education would further benefit the analysis of the pandemic and the variations of policies between Australia and China.

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