

**FISCAL MANAGEMENT OF RESERVES IN
SINGAPORE: AN INTERGENERATIONAL EQUITY
PERSPECTIVE**

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CONTENTS

<i>Abstract</i>	3
<i>Sections</i>	
1. Introduction	4
2. Intergenerational Equity	8
2.1 Theories of Intergenerational Equity	12
3. Discourse in Singapore	19
3.1 Analysing the Discourse in Singapore	25
4. Conclusion	32
<i>References</i>	34

FISCAL MANAGEMENT OF RESERVES IN SINGAPORE: AN INTERGENERATIONAL EQUITY PERSPECTIVE

Abstract

The pre-dominant discourse around the fiscal management of Singapore's national reserves is often framed around sustainability. The concept of sustainability is however shaped by how we understand intergenerational equity; what we mean by "fairness" between generations; and what standards we apply to determine if there is indeed "fairness" between generations. This paper reviews current theories on intergenerational equity, and locates the prevailing discourse on fiscal management of the reserves and intergenerational equity in Singapore with these theories. Overall, the aim of the paper is to offer clarity to the ongoing debate regarding the fiscal management of Singapore's reserves and concerns about intergenerational equity, and provide a foundation to drive future debates on how intergenerational equity regarding Singapore's reserves can be achieved.

FISCAL MANAGEMENT OF RESERVES IN SINGAPORE: AN INTERGENERATIONAL EQUITY PERSPECTIVE

1. INTRODUCTION

“What is the deepest obligation of any government? It is not to the present, and certainly not the past, but to the future.”

The above was stated by founding Prime Minister of Singapore and then Senior Minister Lee Kuan Yew in 2001, during a parliamentary hearing to a Bill moved by Finance Minister Richard Hu, to allow the government to use part of the returns of investment from Singapore’s reserves (Chua, 2001). Fast forward to 2018, and his words would not seem out of place in Parliament. Once again, one of the key issues of contention during Budget 2018 centred on the use of returns generated through investing Singapore’s reserves, and the concomitant question of balancing the state’s obligation to both present and future generations. In 2018, as was in 2001, the subject of intergenerational equity and the fiscal management of Singapore’s reserves are in the spotlight.

Lee’s view on the state’s obligations to present and future generations and hence what intergenerational equity entails represents just one of many along the spectrum of views regarding intergenerational equity. Over the decades, other views have been brought to the fore. The purpose of this paper is to bring clarity to the debate regarding Singapore’s fiscal management of its reserves and intergenerational equity. It will do so in two parts. First, it will

review the theories on intergenerational equity and illustrate that there are four discernible demands of intergenerational justice:

- (1) maintaining a minimum threshold for each generation,
- (2) achieving or at least moving towards an egalitarian society within each generation,
- (3) each generation passes on what they had received from the previous generation, and
- (4) each generation paying for what they benefit from.

Second, this paper will review the discourse on fiscal management of the reserves and intergenerational equity in Singapore, analysing it with reference to the theories discussed in the previous section. The overall goal of this paper is to provide clarity regarding the discourse on fiscal management of Singapore's reserves from an intergenerational equity perspective. In doing so, this paper lays a foundation for further discussion on how intergenerational equity with regard to Singapore's reserves can be operationalised through policy.

Although notions of intergenerational equity spread far beyond merely fiscal management of reserves, this paper narrowly focuses on the reserves because it has become a pertinent issue in Singapore. This comes as no surprise, as the combined wealth of Singapore's Sovereign Wealth Funds (SWFs), Temasek Holdings and Government of Singapore Investment Corporation (GIC), which manage large portions of the reserves, puts them amongst the largest SWFs in the world (Sovereign Wealth Fund Institute,

2018). Given the enormous assets at the disposal of the Singapore government, the use (or non-use) of the funds' returns on invested assets has become a politically contentious issue. Additionally, the reserves' contribution to the annual Budget has increased year-on-year, from under S\$4 billion in 2008 (Ministry of Finance, 2009a) to an estimated S\$15.85 billion in 2018, becoming the single largest contributor to Singapore's government revenue (Ministry of Finance, 2018). The size of the investment returns from these accumulated reserves relative to the government's expenditures means that major fiscal changes automatically raise considerations of intergenerational equity. The Pioneer Generation Fund, for example, was established in 2008 to prefund the future healthcare costs of the "Pioneer Generation", defined as those who were aged 16 or above in 1965 and obtained citizenship by the end of 1986 (Ministry of Finance, 2014). It was set up with an endowment of S\$8 billion, which was unprecedented in size. Such expenditure taps on government revenue for the benefit of a particular demographic within the current generation, and hence has implications for intergenerational equity. That the government was able to transfer such a large amount of funds for such a purpose in a single financial year was attributed to the utilisation of returns from investing Singapore's reserves (Chia, 2014). How little or how much of the reserves' returns are tapped therefore has significant implications for intergenerational equity.

But it has not always been like this. Prior to 2001, governments could not draw on the returns from assets based in past reserves.¹ It was only in 2001 that a constitutional amendment allowed the government to utilise investment income from past reserves. This was known as the Net Investment Income (NII) and refers to the “actual dividends, interest and other income received from investing [the] reserves, as well as interest received after loans, after deducting expenses arising from raising, investing and managing the reserves” (Ministry of Finance, 2017a). With the passing of the *Constitution of the Republic of Singapore (Amendment) Act 2001*, the government was allowed to utilise up to 50 per cent of NII from the past reserves for the annual budget (Chia, 2014).

A second constitutional amendment followed in 2008. The *Constitution of the Republic of Singapore (Amendment) Act 2008* allowed the government to tap on capital gains from investing the reserves, under the Net Investment Returns (NIR) framework in addition to the income from dividends and interest from the NII. Likewise, the constitutional amendment only allowed governments to utilise up to 50 per cent of the NIR. This greatly increased the amount of funds the government could draw from the reserves, as a “significant part of the returns on [the] reserves are capital gains” (Lee, 2006). Including the capital gains into the calculation of returns from investing Singapore’s reserves provides a better reflection of the actual returns of investment. With this constitutional amendment, Net Investment Returns

¹ Past reserves refer to reserves that were not built up during each government’s five-year term.

Contribution (NIRC), comprising of up to 50 per cent of the NIR, can be used in the government's annual budget. A third constitutional amendment was introduced in 2015, through which Temasek was included into the NIR framework that had previously only included GIC and the Monetary Authority of Singapore (MAS)² (Ministry of Finance, 2017a).

2. INTERGENERATIONAL EQUITY

These constitutional changes were central to increasing the NIRC to the annual budget. In fact, the need to buttress government revenue by increasing the government's returns on its investments was behind the constitutional changes. The government had recognised that going forward, Singapore's ageing population would result in higher social spending, and there was a need to tap on its reserves to fund such spending (Chia, 2014). Although rising old-age dependency is also accompanied by declining child dependency as a result of low fertility rates and high life expectancy in Singapore, declining child dependency is unlikely to offset rising old-age dependency in terms of government expenditures. This, of course, is not a situation unique to Singapore. It is a global phenomenon. Life expectancy has been projected to reach 81 years in year 2100, with 21 per cent of the total population above 65 (Magnus, 2009, p. 39). At the same time, the UN estimates that the global fertility rate will decline from 2.55 to 2 by 2050 (p. 41). Expenditure on caring for the elderly has been shown to be significantly higher than for the young (p. 52). Estimates by the International Monetary Fund (IMF) and the Organisation for Economic Cooperation and Development

² MAS is the central bank of Singapore, and also manages some of Singapore's reserves.

(OECD) show that age-related spending, which includes healthcare, education and pensions, will rise by about 7 per cent of the GDP in OECD countries by 2050 (OECD, 2001). In Australia, the 2002–3 Intergenerational Report projected that government expenditures would exceed revenues in 15 years, due to such demographic changes (Treasury of the Commonwealth of Australia, 2002). In fact, both the 2010 and 2015 Intergenerational Reports showed that government expenditure had overtaken revenues (Treasury of the Commonwealth of Australia, 2010; 2015).

Although it is expected and accepted that an ageing population would necessitate higher government expenditure towards the elderly segment of the population, it is important for governments to get the balance right between the meeting the needs of different segments of the population as well as future generations. Failing to do so could foster intergenerational conflict. In the international literature, the jury is still out on whether governments have generally been able to do so. Some of the more apocalyptic pieces (Beckett, 2010; Howker & Malik, 2010; Kotlikoff & Burns, 2012) have detailed how the post-war baby boomers (who now form the bulk of the senior citizens) have recklessly spent the nation's wealth through generous welfare regimes that now short-change the youth and future generations. In a similar vein, a survey of undergraduate university students across eight democracies³ found that the respondents generally perceived that elderly citizens in their own countries were better rewarded relative to the contributions of each age cohort

³ The eight democracies are the United States, Canada, Australia, New Zealand, France, Sweden, Norway and the Netherlands.

(Sabbagh & Vanhuyse, 2010), which suggests a perceived intergenerational injustice by youth.

Other studies paint a more optimistic picture. Cross-country comparative studies from Europe and the OECD neither find evidence of intergenerational conflict increasing with population ageing (Hess, Nauman, & Steinkopf, 2017), nor the emergence of a gerontocracy (Tepe & Vanhuyse, 2009). Interestingly, the lack of intergenerational conflict may not coincide with the loss of support for welfare policies targeted at the elderly. A study of European countries concluded that while overall support for such welfare policies decreased in countries with higher old age dependency ratio, this loss of support appears to be spread evenly across age cohorts (Emery, 2012). Public sentiment does not necessarily become polarised as the population ages.

Regardless of their successes or failures at ensuring intergenerational equity and preventing intergenerational conflict, there has been widespread recognition that intergenerational equity is an important issue to be addressed. As noted in a report by the United Nations Economic and Social Commission for Western Asia, “today, barely a budget debate passes in a parliament without a reference to generational justice or ‘financial sustainability’” (2017, p. 4). At the international level, a number of resolutions, agreements and reports have sought to enshrine the responsibility of states to ensure intergenerational equity. For example, the United Nations General

Assembly has adopted resolutions such as “The Future We Want”⁴ (United Nations, 2012), and the Agenda 2030 for Sustainable Development⁵ (United Nations, 2015) that both identify the responsibilities of the present generation toward future generations, and that present generations must act as custodians of the future generations—across social, economic and environmental dimensions of sustainable development.

In Singapore, concerns about intergenerational equity have long been central to policymaking, and in particular to policy regarding the utilisation of returns on investment of Singapore’s past reserves. We can see that from the statement by founding Prime Minister Lee Kuan Yew in 2001, quoted in the beginning for this paper—that concerns about the present generation’s responsibilities to future generations were taken into consideration as Parliament passed the first constitutional amendment that allowed the government to tap into the returns on investment of Singapore’s past reserves. The need to strike a “fair balance” between the needs of present and future generations and achieve “fairness” between the generations has been echoed multiple times over the years—by for example, current Prime Minister Lee Hsien Loong, who stated his belief that allowing the government to utilise up to 50 per cent of the returns from the reserves is a “fair balance between the claims of the present and the future generations” (2006). Deputy Prime Minister (DPM) Tharman Shanmugaratnam has mentioned the need to

⁴ Resolution adopted by the General Assembly on 27 July 2012: A/RES/66/288 – The Future We Want

⁵ Resolution adopted by the General Assembly on 25 September 2015: A/RES/70/1 – Transforming our world: the 2030 Agenda for Sustainable Development

“build a fair and inclusive society for today’s generation, our children’s generation and generations in the future” (Shanmugaratnam, 2015). In the latest parliamentary Budget debate, Minister of Parliament (MP) Liang Eng Hwa echoed Lee’s view that utilising up to 50 per cent of the returns is a fair balance between current and future generations (Yuen, 2018), while Minister of National Development Lawrence Wong explained that such rules were implemented “so that we can find the right balance between present and future generations” (Siau, 2018).

2.1 Theories of Intergenerational Equity

The need to achieve intergenerational equity and some form of “fairness” between generations has long been recognised in Singapore, particularly in the utilisation of returns from its reserves. There is however still the need to ask what we mean by achieving intergenerational equity; what we mean by “fairness” between generations; and what standards do we apply to determine if there is indeed “fairness” between generations. In order to answer these questions, it is useful to review the literature on the theories of intergenerational equity.

Intuitively, most people would agree that we should not harm others. In terms of intergenerational equity, each generation would have a duty not to bring harm to future generations. But it is far less straightforward to answer whether each generation has a duty to bring about positive effects for future generations. Two types of questions emerge from this. First, while we can agree that we have a duty to ensure that the activities of the present

generation do not bring harm to future generations, what would constitute harm? Second, if we have a “positive duty” to ensure that the activities of the present generation advance the well-being of future generations, how far does this duty extend (Thompson, 2002)? By how much are we obliged to improve the lives of future generations? Do we merely have to maintain it above a certain minimum?

A number of theories on intergenerational equity attempt to address these questions. Among them is the *liberal egalitarianism*, or *Rawlsian* perspective. John Rawls identifies two stages of social development, in which present generations’ obligation to pass on savings to the next generations are different (Rawls, 1971). In the accumulation stage, present generations have an obligation to accumulate resources for future generations; they are obliged to pass on savings to future generations, such that future generations have the resources to develop and maintain institutions of justice, so that society can achieve equal liberty for all. Once such institutions have been sufficiently established, society enters into the stable stage. At this stage, present generations no longer have a duty to further accumulate resources for future generations, since the goal of establishing institutions to achieve equal liberty for all has been reached (Campos, 2018; Diprose, et al., 2018). According to Rawls, “once just institutions are firmly established and all the basic liberties effectively realised, the net accumulation asked for falls to zero” (Rawls, 1971, p. 255). Future accumulation beyond the demands of justice is “more likely to be a hindrance, a meaningless distraction at best if not a temptation to indulgence and emptiness” (p. 258). Thus, he argues that “we are not bound

to go on maximising indefinitely ... it is a mistake that a just and good society must wait upon a high material standard of life” (p. 258).

If we focus solely on what Rawls identifies as the “stable stage”, the *sufficientarian* perspective proposes something similar. It proposes that we have a duty to create conditions in which as many people as possible “have enough resources to pursue the aims and aspirations they affirm” (Campos, 2018, p. 6); they have *sufficient* resources. Like the Rawlsian perspective, it sets a minimum threshold, above which there can be no moral claims. Justice aims solely at universalising sufficiency, and nothing above that. In terms of intergenerational relations, the sufficientarian perspective hence proposes that we only have a moral obligation to transfer resources to those in future generations that fall below a threshold of sufficiency—those that lack access to sufficient resources in order to pursue their aims and aspirations.

Both the Rawlsian perspective under the “stable stage” and the sufficientarian perspective hence propose a threshold, through which we judge whether future generations have claims on present generations to continue to pass on savings and accumulate resources. For the Rawlsian perspective, this threshold is the establishment of just institutions that allow basic liberties to be realised, while for the sufficientarian perspective it is the access to sufficient resources for one to pursue one’s aims and aspirations. These are quite similar perspectives. Institutions of justice that ensure basic liberties provide us with the basic (sufficient) resources for us to pursue our aims and aspirations. Welfare systems, for example, as institutions of social justice

provide us with the basic resources and rights for us to pursue our goals. By this reading, both the Rawlsian perspective (under the “stable stage”) and sufficientarian perspective suggest that future generations only have claims on present generations when this minimum threshold is not achieved.

One discernible difference however, is in how the Rawlsian and sufficientarian perspectives deal with the “excess” beyond the minimum threshold. The sufficientarian standard appears to be vague on this. While it insists that we have an obligation to ensure universal sufficiency—those that fall below the threshold of sufficiency have moral claims to resource transfers from others—it does not categorically state what should be done with the “excess” resources beyond achieving the minimum threshold for all. The Rawlsian perspective, however, may provide a clearer standard for the treatment of “excess”. It is Rawls’ belief that resource accumulation beyond the threshold needed to maintain institutions of justice once firmly established is not just unnecessary, but possibly harmful. Extending this notion, Gaspart and Gosseries (2007) interpret that once society is in the “stable stage”, further resource accumulation for future generations should be prohibited. Instead, these “excess resources” should be utilised for benefit of the least well-off members of the current generation. This interpretation, while based on Rawls’ theory, is a slight departure from the original theory because it extends the standards of intergenerational equity from merely being about establishing and maintaining institutions of justice for society as a whole, towards a pursuit of egalitarianism and redistribution of resources to achieve that (Diprose, et al., 2018).

In fact, the *distributive* perspective stresses just that. Its emphasis is on the distribution of available resources to different members of society; justice is about equal access to resources. This represents a shift from thinking about each generation as a whole (i.e., is the minimum threshold met by all in each generation), to thinking about *within* each generation (i.e., how resources are distributed within each generation). According to the distributive perspective, intergenerational equity is hence not about ensuring each generation has *enough*, it is about minimising inequality within members of each present and future generation. A strict interpretation of this perspective views any actions by the current generation that results in unequal access to resources among members of future generations as being unjust. A less strict interpretation of the distributive perspective is that present generations have an obligation to prioritise actions that will benefit those that are less well-off, across generations (Campos, 2018). Since inequality is usually replicated across generations (i.e., social mobility is not absolute) (Bowles & Gintis, 2002; Corak, 2013), reducing inequality in the present generation also goes some way in reducing inequality in future generations.

Yet other perspectives emphasise different forms of justice, or standards of “fairness”. The *libertarian* perspective emphasises not leaving things worse off for others; one’s existence must not have deprived someone else of something that he or she might otherwise have benefitted from (Campos, 2018). Its basic premise is that “no individual may degrade or use up more than her per capita share of natural resources without sustainable offsetting

compensation” (Steiner & Vallentyne, 2009, p. 63). For libertarians, the standard of fairness is that each person has the equal right to exploit and utilise resources; that no one’s actions deprives another of their right to do so. According to the Lockean proviso, one has to ensure that there is at least “enough and as good left for others” (Locke, 1988, Section 27). In terms of intergenerational equity, we thus need to ensure that “each successive generation obtain[s] the equivalent of a per capita share of unimproved, undegraded land” (Arneson, 1991, p. 53).

The *indirect reciprocity* theory of intergenerational equity is based on the principle of reciprocity, which states that “we should return to others what we received from them” (United Nations Economic and Social Commission for Western Asia, 2017, p. 12). Across generations, this reciprocity is “indirect” because we are not returning what we received from our forefathers back to them; instead, we are “returning” it to our successors. The idea is that “each generation owes something to the succeeding generations because it received something from previous generations” (Campos, 2018, p. 5). Our obligations to future generations are based on our relationship with the past. Intergenerational equity is achieved when there is equilibrium between what is received and transmitted by each generation.

Last but not least, there is the “*benefiter-pays*” principle. As its name suggests, the principle is straightforward: one should pay for what one benefits from, and should not pay for what one does not benefit from. In terms of intergenerational equity, this means that future generations do not end up

paying, through taxation, for social services that benefit the current generations but do not benefit themselves (Thompson, 2002). This mode of thinking has particular salience in countries with high levels of government debt; debt incurred in order to provide today's social services becomes debt that needs to be serviced by future generations, even if they are not the beneficiaries of such social services. To achieve intergenerational equity, each generation should only pay for the things that they benefit from. In practice, however, this is hardly straightforward. Infrastructural investments, for example, are paid for by the present generations, but benefit future generations as well. The "benefiter-pays" principle would require future generations to pay for such spending in some way.

Regardless of the merits and demerits of each of these perspectives of intergenerational equity, they do provide us with valuable insight. From this brief review, we can discern various approaches to intergenerational equity⁶. First, some theories, such as the Rawlsian, sufficientarian and capability view, emphasise that intergenerational equity obliges us to ensure that each successive generation meets a minimum threshold, be it to maintain institutions of justice that have been established, have enough resources to pursue aims and aspirations, or have the capability to meet their own needs. Second, the distributive perspective, and to some extent the Rawlsian perspective, emphasise egalitarianism as the standard of justice.

⁶ The perspectives reviewed here are not necessarily exhaustive. However, these perspectives were selected for this review because of their potential relevance to discussing the relationship between fiscal management and intergenerational equity, which is the objective of this paper.

Intergenerational equity is not only about fairness between generations, but also about reducing inequality within members of each generation. Third, there is some similarity between the libertarian and indirect reciprocity perspectives; if each generation is required not to deprive the next generation to their equal right to access and exploit resources, then in effect, they are passing on to successive generations what they had received from preceding generations, which is the underlying principle of the indirect reciprocity perspective. Finally, the “benefiter-pays” perspective offers a straightforward approach to intergenerational equity—each generation should pay for what they benefit from; and that no generation should have to pay for what they do not benefit from.

Summarising, there are hence four broad principles of intergenerational equity: (1) maintaining a minimum threshold for each generation; (2) achieving, or at least moving towards, an egalitarian society within each generation; (3) each generation passes on what they had received from the previous generation; and (4) each generation paying for what they benefit from.

3. DISCOURSE IN SINGAPORE

Concerns of intergenerational equity have long featured in debates about utilising the returns from Singapore’s reserves. Despite this, there has been no consensus on how much of the returns to utilise in order to best achieve intergenerational equity. One of the main points of contention in the 2018 Budget debate in Parliament was over the 50 per cent NIRC rule, which

restricts the government to utilising only up to 50 per cent of the NIRC in any given year. While politicians from the ruling People's Action Party (PAP) have always maintained that the 50 per cent rule helps ensure intergenerational equity, there have been dissenting voices. Leon Perera, a non-constituency Member of Parliament (NCMP) of the Workers' Party, suggested that the government could raise the cap on NIRC (Sim & Yusof, 2018). Likewise, public intellectual Donald Low argued that it is reasonable to consider whether the government should take more from the reserves, as it is still adding to the principal (Low, 2018).

Tied to this debate about how much of the returns the government should be able to utilise is the risk inherent in having a significant portion of each annual Budget funded by income generated in potentially volatile financial markets. As had been mentioned, NIRC is now Singapore's largest single contributor to its annual budget (Ministry of Finance, 2018). MP Seah Kian Peng argued that that NIRC has already been "called into service to a very large extent" (Yuen, 2018), while Nominated Minister of Parliament (NMP) Randolph Tan also opined that the "heavy dependence on NIRC as main source of spending increases is still a very insecure arrangement" (Tan, 2018), noting that growth in government expenditures had outpaced revenues (excluding NIRC) by 0.7 per cent each year from 2008 to 2017. NIRC has been making up for the shortfall, with the amount contributed increasing from S\$4 billion to \$14.6 billion in the same period, a compounded rate of increase of 13.8 per cent per annum. In order to prevent an over-reliance on utilising the reserves for meeting government expenditures and the attendant risk from market

fluctuations, he argues that NIRC should be kept at 50 per cent. In fact, as far back as 2007, before the second constitutional amendment that allowed capital gains from investing the reserves to be utilised for government spending, there had already been warnings against the risk of “institutionalising” spending based on such volatile income sources (Tan, 2007).

Such apprehension of the risks of increased NIRC utilisation is not entirely unfounded. Norway’s SWF, called the Government Pension Fund Global, had a real rate of return⁷ after costs⁸ of just 1 per cent from 1998 and 2009—in large part because of the 2008 Global Financial Crisis, when the fund recorded a rate of return of negative 23 per cent. Similarly, Temasek experienced a negative 30 per cent return between 2008 and 2009, with its 10-year nominal rate of return⁹ ending in 2009 at 6 per cent (Temasek Holdings, 2018). For GIC, it recorded a “loss of more than 20 per cent” in the financial year ending 2009, and its 20-year real rate of return ending in 2009 was 2.6 per cent (Government of Singapore Investment Corporation, 2009, p. 10). The 20-year outlook for Singapore ending 2017 was rosier, with Temasek recording an annual 6 per cent nominal rate of return¹⁰ while GIC posted an annual 3.7 per cent real rate of return (Ministry of Finance, 2017b). Nonetheless, one of the main arguments for maintaining the NIRC cap at 50

⁷ Real rate of return is the rate taking into account inflation.

⁸ “Costs” refer to the costs of operating the SWF.

⁹ Nominal rate of return is the rate not taking into account inflation.

¹⁰ Temasek does not post its real rates of returns.

per cent is that it allows for a desirable rate of growth of the national reserves, to better buttress against the risks presented by volatile financial markets. As Thomas Piketty (2014) points out, large wealth holdings are better able to generate high financial returns than small ones. A larger pool of reserves enables “better quality assets to be pursued and retained” (Tan, 2018), which lowers the risk associated with market volatility, thus better safeguarding future returns. The larger the proportion of NIR that is transferred into the Budget, the greater the investment risk for future returns. Echoing this, Second Minister of Finance Indranee Rajah stated that raising the NIRC would mean that the principal amount (of the reserves) would have to “work a lot harder”, thus maintaining NIRC at 50 per cent would ensure “consistency, stability and sustainability” (Neo, 2018).

Augmenting the arguments to maintain NIRC at 50 per cent is the recognition that government expenditures will grow significantly due to demographic changes. The largest increase in social spending will be in healthcare spending due to Singapore’s ageing society (Shanmugaratnam, 2015). There is a fear that utilising the returns on reserves too heavily now will mean lack of funds in the future, when expenditure is expected to be markedly higher than in the current day (Low, 2012). Of course, as noted earlier in the paper, rising expenditures was precisely the reason for the constitutional amendments that allow the government to draw upon the returns from investing the reserves. For the proponents of the current 50% NIRC rule, capping the NIRC at 50 per cent provides the best balance between current and future spending needs.

More intriguing are sentiments based on notions of responsibilities of the current generation. In Finance Minister Heng Swee Keat's 2018 speech to round off the Budget debate in Parliament, he said that "our reserves have been painstakingly built up over half a century by our pioneers and previous generations", and so "we must act as responsible stewards" for the future generations, as "what our forefathers had been for us" (The Straits Times, 2018). Furthermore, he stated that Singapore's "basic orientation" is to save and build for the future rather than "living for today", suggesting that being a "responsible steward" means continuing in such a fashion. This echoes the quote at the beginning of this paper, in which founding PM Lee Kuan Yew states his belief that the "deepest obligation of any government" is not the present generation but to the future generations (Chua, 2001).

Another strand of thought for arguing against allowing the government to utilise more of the returns from investing the reserves is that each generation "should strive to pay for its own spending" (The Straits Times, 2018). The fear is that Singaporeans would make it a habit to constantly withdraw from the reserves, creating a future generation of Singaporeans with a "trust fund kids" mentality—referring to "rich kids who come to depend on their family trust funds to finance their lifestyles" (Chua, 2015). The argument is that future generations of Singaporeans will come to rely on utilising the reserves built up by previous generations to fund social spending, instead of each generation funding their own spending needs.

Ironically, it is through the same logic of each generation funding their own expenditures—which put another way, means that each generation should pay for what they benefit from—that some argue for utilising more of the NIRC. The argument is that since Singapore’s reserves were accumulated through the hard work of the present generations—especially the older segment of the population—it would be equitable to draw upon the reserves, or at least the returns from investing the reserves, to fund the social and health expenditures of this segment of the population (Low, 2012). The social and health expenditures of this segment of the population is also precisely what drives Singapore’s government expenditures upwards; upward pressures on government spending is caused by an ageing population, so the argument goes, it makes sense to utilise more of the reserves to meet the increased spending needs. In other words, because the older segment of the population have already “paid”—in the form of the fiscal surpluses accumulated during their working years, they should also be the ones benefitting from the reserves. Such arguments were already being aired in 2001 in the lead up to the first constitutional change that allowed the government to tap on returns of investing the reserves. At the time, MP Wang Kai Yuen argued that the government should tap into the returns from past reserves to defray the healthcare costs of the elderly, because “they are the ones who made Singapore what it is today” (Long, 2001) and “laid the foundations for today’s affluent Singapore, and the country owes it to them” (Chua, 2001).

A different approach to arguing for raising the 50 per cent NIRC was provided by NMP Kuik Shiao-Yin in the 2018 Budget debate in Parliament. She argues that while capping NIRC at 50 per cent may be prudent, it overlooks the needs of the vulnerable in present and future generations (Lee & Tan, 2018). She points out that the enormous reserves Singapore has built up over the decades presents an excellent opportunity for the government to reduce inequality—and in doing so, improve the lives of the vulnerable. Inequality, she notes, is one of the biggest issues facing Singapore today, and this is recognised across various segments of society, including Singaporean youths (Teo, 2015), academics (Chua, Tan, & Koh, 2017; Teo, 2018), journalists (Chua, 2018), and politicians (Lee, 2018). She argues that we have a moral obligation to act, because “we have enough ... it is time to let more of us have enough too” (Channel NewsAsia, 2018). Hence, given that Singapore both has the opportunity and obligation to alleviate inequality, she urges the government to raise the cap on NIRC, to allow more returns from investing the reserves to be utilised to reduce inequality both in present and future generations.

3.1 Analysing the Discourse in Singapore

How can we make sense of the discourse in Singapore? This section will analyse the discourse in relation to the theories of intergenerational equity reviewed earlier. The purpose of this section is to provide some ways of understanding the discourse in Singapore, in order to advance the debate and form a foundation from which policy on the fiscal management of reserves can be crafted. The first line of discourse is that NIRC needs to be capped at 50

per cent so the reserves can grow sufficiently to adequately stave off the risks associated with the financial market. Related to this is the worry that if Singapore's reserves do not grow adequately, it will not be able to finance the increasing expenditures caused by an ageing population. This appears to be a straightforward appeal to the standard of maintaining a minimum threshold for future generations as intergenerational equity. Clearly, the goal here is to ensure that Singapore will continue to be able to adequately fund the social spending that is required as its demographics change over the next generations. With regard to risk, the risk associated with funding social spending using returns on investing reserves is a risk borne by *future* generations, not the current generation. NIRC is calculated using *expected* long-term returns over a period of 20 years (Ministry of Finance, 2009b). In a scenario where market volatility results in actual long-term returns that are below the expected returns, it would mean that the government had been drawing down from the reserves more than had been expected. Theoretically, if the government consistently overestimates the long-term returns, the reserves could dwindle, leaving an insufficient amount for future generations to adequately fund their social spending requirements. This would contravene the standard of maintaining a minimum threshold for intergenerational equity if Singapore's future generations are unable to obtain a minimum standard of social services.

The discourse becomes less straightforward as it shifts to notions of current generations needing to be "responsible stewards" of the reserves. Of course, this is not detached from the notion of intergenerational justice as maintaining

a minimum threshold for future generations—being a “responsible steward” would mean ensuring that the minimum threshold is maintained. But in statements that express Singapore’s “basic orientation” as saving up and building for the future rather than “living for today”, and that the “deepest obligation of any government” is not to present generations but to future generations, it suggests that the government believes that being a “responsible steward” goes beyond ensuring this minimum threshold is maintained. Furthermore, the discourse also invokes a sense of reciprocity—“we must act as responsible stewards” for the future generations, as “what our forefathers had been for us”. This notion of reciprocity appears to extend further than merely passing on the amount of resources each generation received from the previous generation to the next; it goes beyond merely “not leaving things worse off” for the next generation, because the previous generation did not leave things worse off for the current generation. The notion of reciprocity expressed by the political leadership in Singapore thus reads like this: because the previous generations saved up and built for the future generations, the current generations must reciprocate this act; they have to save and accumulate in turn for future generations as well. The act of reciprocity here is not of passing on the resources each generation has received from the previous generation—it is to reciprocate this spirit, or ideology, of saving up and building for the future. This seems to go beyond what theories of intergenerational equity based on the notion of each generation passing on what they had received from the previous generation had envisioned.

Shifting to discourses that argue against the current 50 per cent NIRC cap, NMP Kuik's urging of the government to raise the cap in order to alleviate inequality has strong resonance with egalitarian perspectives of intergenerational equity. It coheres with the distributive perspective of intergenerational equity that present generations have an obligation to prioritise action that improves the well-being of the less well-off. It also has shades of Gaspart and Gosseries' (2007) interpretation of the Rawlsian perspective—"excess resources" in a "stable-stage" society should be used for the benefit of the least well-off members of the present generation. Kuik does not go as far as to suggest that further accumulation of resources (for future generations) should be outlawed, but she forwards the notion that because the current generation has sufficient resources ("we have enough"), the government should direct resources to improving the well-being of the less fortunate in society, instead of unnecessarily accumulating for the future.

Last but not least, the discourse based on the notion that each generation paying for itself provides much food-for-thought, not least because it is invoked by both those who are in favour and against the current 50 per cent NIRC cap. Those against raising the cap argue that each generation should seek to pay for its own spending instead on tapping on the reserves. On the other side, proponents for raising the cap argue that it is precisely because each generation should pay for its own spending needs that the cap should be raised. As the reserves were "paid for" by the older segments of the population themselves, it is they who should be the beneficiaries of the increased social spending needs in Singapore. Both positions adhere to a

“benefiter-pays” perspective of intergenerational equity. Do these exponents have a valid point? In order to answer this, the idea that Singapore’s reserves were “paid for” by the older segments of the population, and hence rightfully theirs, would have to be examined.

At first glance, the idea that the older segment of the population had “paid for” and built up Singapore’s substantial reserves may seem valid. Singapore’s reserves grew rapidly in the 1970s, during the phase of high economic growth from 1965-84, during which Singapore had large fiscal surpluses (Chia, 2014). Fiscal surpluses, of course, result from the balance between government revenues, generated through taxation, and government expenditures. In that sense, fiscal surpluses are payments made by citizens to the government in which the citizens have not been “returned” an equivalent amount in benefits. A fiscal surplus results, for example, when the government collects \$500 million in taxes but only spends \$400 million of it on the welfare of its citizens, resulting in a \$100 million surplus. In Singapore’s case, these surpluses were accumulated as reserves, and invested through its SWFs^{11 12}. By this logic, Singapore’s reserves today are the result of payments by older segments of the population who have not seen the full benefits of their payments. Hence, it

¹¹ Admittedly, Singapore’s reserves do not result solely from fiscal surpluses accumulated over the years. For Temasek, its seed capital came from the sale of state-owned enterprises (Alsweilem et al., 2015). Nonetheless, because the sale of state-owned enterprises are also “one-offs”, as are fiscal surpluses resulting from demographic dividends (which are explained later in this paper), the argument made in this section does not change.

¹² Central Provident Fund (CPF) contributions by residents of Singapore are also “converted” into reserves, but this portion of the reserves is excluded from NIRC calculations (Ministry of Finance, 2017a).

would seem like a valid argument to suggest that the reserves should be used for social and healthcare spending on the elderly today.

However, this ignores the role of the demographic dividend Singapore experienced in generating Singapore's considerable reserves today. The demographic dividend comes about because of a significant increase in working-age population coupled with a significant decrease in fertility, which produces a high ratio of workers to dependents (Turner, 2017). This upturn in workers to dependents ratio can have a sizable effect on the economic performance—one-third of the growth of the “Asian Tigers” has been estimated to be attributable to the demographic dividend (Bloom, Canning, & Malaney, 2000). In Singapore, the effective labour force grew by 3.26 per cent annually from 1960–2000, while effective dependents grew by 2.49 per cent annually over the same period. The demographic dividend is estimated to have contributed between a third to 38 per cent of GDP per capita growth in Singapore between 1967 and 2004 (Bloom & Williamson, 1998; Gee, Arivalagan, & Chao, 2018).

Demographic dividends, of course, do not last forever. The workers to dependents ratio in Singapore is likely to have peaked and will be on the decline for the coming decades (Vallin, 2005). Furthermore, demographic dividends are a “one-off” (Turner, 2017). They result from a combination of demographic changes that are unlikely to be replicable. Therefore, can older segments of the population today in Singapore rightfully claim to have “paid for” and built up Singapore's reserves, and hence rightfully claim that the

reserves should be spent for their benefit? The argument appears to be questionable. While it is true that the fiscal surpluses generated were indeed from payments by the older residents today back in their working days, it would be more accurate to suggest that it was in fact the demographic dividend that “paid” for the reserves and built it up. The demographic dividend cannot be attributed as the “work” of any generation; it must be seen as “belonging” to Singaporeans across all generations. As mentioned, it is a one-off caused by the confluence of demographic changes, and it not only provides a dividend when the workers to dependents ratio is at its maximum, it also results in a rapid fall in that ratio once the peaked has been reached, since the dividend is partly the result of a decline in fertility. In other words, while demographic changes combine to produce a dividend for a particular time period, the same demographic changes also produce a “reverse dividend” in the time period after. Dividend and “reverse dividend” are intimately linked, and hence any demographic dividend must be seen as a dividend to be enjoyed across a transgenerational community of Singaporeans, regardless of whether a particular generation is experiencing a dividend or “reverse dividend”. In fact, the larger the demographic dividend, the shorter it would last, and the greater the “reverse dividend” that follows would be (Vallin, 2005). This “reverse dividend” has been estimated to be equivalent to negative 1.5 per cent of GDP per capita per annum from 2017 to 2060 (Gee, Arivalagan, & Chao, 2018).

Therefore, national reserves should be seen in this light. The fiscal surpluses built up during a period of favourable demographics should be seen as the

property of all generations, present and future. Reserves accumulated during the demographic dividend should be used to counter the adverse socio-economic consequences of the inevitable unwinding of this dividend. Although the original sources of Singapore's reserves are not commodity-based (unlike for example Norway's, which is based on revenues from oil production), Singapore's reserves should also be treated as if it was built up from non-renewable commodities. For reserves built up from non-renewable commodities, the argument that the wealth generated must belong to all generations is clear – oil is a non-renewable national asset and its benefit cannot merely accrue to a single generation that exploits it. But even in the case of non-commodity sourced reserves like Singapore's, the demographic dividend should be seen as belonging to all generations. Every generation should be seen to have implicitly “paid” for the reserves, and hence also be privy to benefit from it. This suggests that discourse which lends special moral weight to particular generations based on the “benefiter-pays” logic – whether to argue that certain generations are most deserving of the benefits of the reserves; or the reverse, that certain generations are particularly undeserving of the benefits – should be relooked.

4. CONCLUSION

This paper has attempted to provide theoretical underpinning to the ongoing debate regarding the fiscal management of Singapore's reserves and concerns about intergenerational equity. Four broad principles of intergenerational equity were distilled by reviewing the literature on the theories of intergenerational equity. The discourse in Singapore was then

reviewed and critically analysed with reference to the theories. Through this analysis, this paper explained how the discourse could be understood with respect to the four broad principles of intergenerational equity identified in this paper. To summarise, the rhetoric about building up the reserves to adequately stave off investment risk is rooted in concerns about providing a minimum threshold of resources for successive generations. In addition, while there is discourse in Singapore that appeals to the notion of reciprocity as intergenerational equity, its demands of reciprocity exceeds what was envisioned in the theories of intergenerational equity. It demands that each generation reciprocates the spirit of saving and building up for the future, rather than merely passing on the resources it has received. Although the discourse does not automatically become invalid by not being aligned with theory, it is worth considering whether Singapore should adopt such a standard of reciprocity with regard to the fiscal management of its reserves for intergenerational equity. Furthermore, arguments for utilising the reserves for reducing inequality in present and future generations can be read as a way of achieving intergenerational equity as well, as proposed by theory. Finally, assertions that certain generations are particularly deserving or undeserving of benefiting from the reserves are rooted in the logic of “benefiter-pays” as intergenerational equity. However, the analysis suggests that all generations should be seen as having “paid” for Singapore’s reserves because of the large role the demographic dividend had in building up the reserves, and the concomitant “reverse dividend” that accompanies the one-off demographic dividend. Therefore, such assertions should be relooked.

It is through such theoretically driven analysis that we can rationalise the discourse in Singapore and hence how policy debates regarding the fiscal management of reserves for intergenerational equity should proceed from here. One question that needs to be answered is what an appropriate standard for each of the principles of intergenerational equity would be. Given the potentially competing demands of the different principles of intergenerational equity, a further consideration is how they can be balanced. Furthermore, it may be fruitful to consider the linkages between the various discourses and principles and uncover possible synergies between them. Overall, the deeper understanding of the discourses and elucidation of the principles of intergenerational equity would hopefully drive future debates on how intergenerational equity regarding Singapore's reserves can be achieved.

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