Singaporean Model of Social Security in the Context of Ageing

Ghan Shyam Gautam

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Abstract

As the consequence of soaring financial burden of social security, world is considering, modifying, contracting out or switching the existing systems towards the funded ones. This study reviews the overall system of social security in Singapore and concentrates on Central Provident Fund (CPF) which is the most fundamental- working on self-funded basis. Besides

CPF, non-contributory pension system and voluntary saving scheme cover the selected group of upper income while assistive schemes remain stringently limited to benefit the lower income group in Singapore. Along with the process of rapid economic development and industrialization, CPF, which originally aims to accumulate the saving for retirement through individual accounts, has expanded to contain various schemes of social security. Despite the self-funded nature of the CPF, wider coverage covered by a single consolidated instrument, and cost effective health care system and supportive role of voluntary activities constitute the elegant characteristics in the overall social security arrangements in Singapore. Low replacement rate, lack of risk pooling and protection for less-advantaged, lack of proper combination with tax system and non-transparency are the major issues identified in the CPF scheme. Generous treatment for the pre-retirement withdrawal and lack of access to the global financial market for investment are main reasons for insufficiency of saving for its ageing population. Due to the purely funded nature of the system, it has remained quite vulnerable against the turmoil in financial market. Tax financed minimum support along with risk-pooling mechanism is essential in the system to introduce redistributive elements and reduce the risks against financial market.

Key Words : Social Security, Central Provident Fund, Ageing, Self Funded, Defined Contribution, Singapore

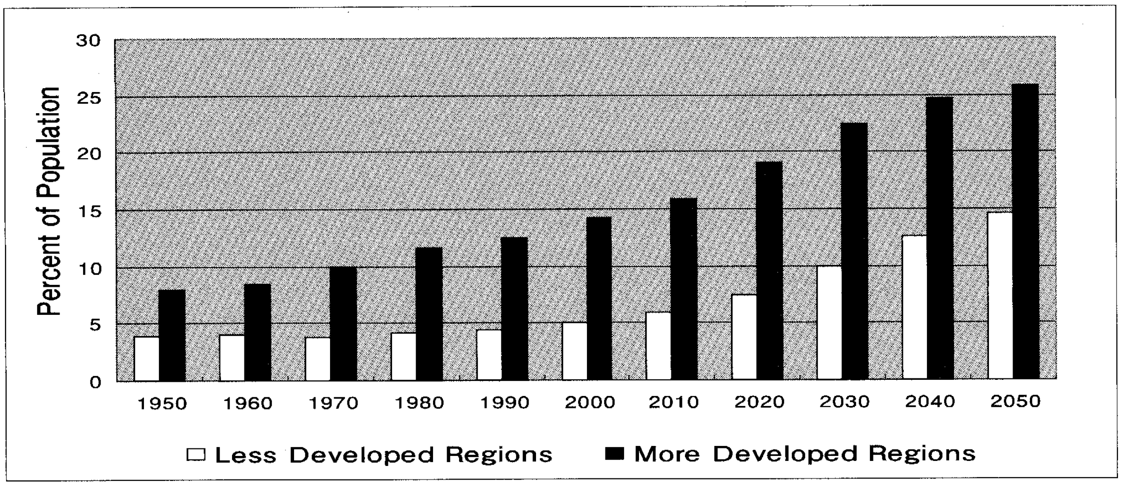
1. Ageing and Social Burden

1.1 Facts

Demographic structure of the world is changing rapidly in recent decades and is expected to accelerate the pace further for the time to come. At the world level, the median age rose by scarcely three years between 1950 and 2000, from 23.9 years to 26.8 years, while this figure is projected to increase by 11 years to reach 37.8 years in 2050 as reported in the 2004 revision of World Population Prospects by United Nations. Especially in developed countries, the case of ageing is severe since such countries, in general, have higher life expectancy and the fertility rate is falling rapidly. We can see in the figure below that trend of ageing is common to both the developed and developing countries but the developed countries are now turning towards the severe case of ageing while developing countries are to face the increasing rate of expansion.

Such a rapidly ageing world is not only causing the number of aged people to increase but the increasingly accelerated rate of proportion of such aged has made the situation more devastating. Again if we look the world figure of elderly dependency

Figure 1. Percent of Population Aged 65 and over: Past and Future



Source: United Nations (2004).

ratio, it hardly raised by 2 years (9 to 11) from 1950 to 2000 while for the next 50 years, since 2000, it is expected to reach 25, soaring more than 100 percent[1]. Ageing is one but major demeanor for the increasing public burden on social sector (see figure 2 below) by which many countries are hard hit. Concurrently, traditional type of family support and social or communal services are disappearing due to the social fragmentation brought by the industrialization and globalization. Further, scope and benefits of social security system have widened vastly because the movement is towards the expansion in coverage and benefits and at the same time schemes are maturing.

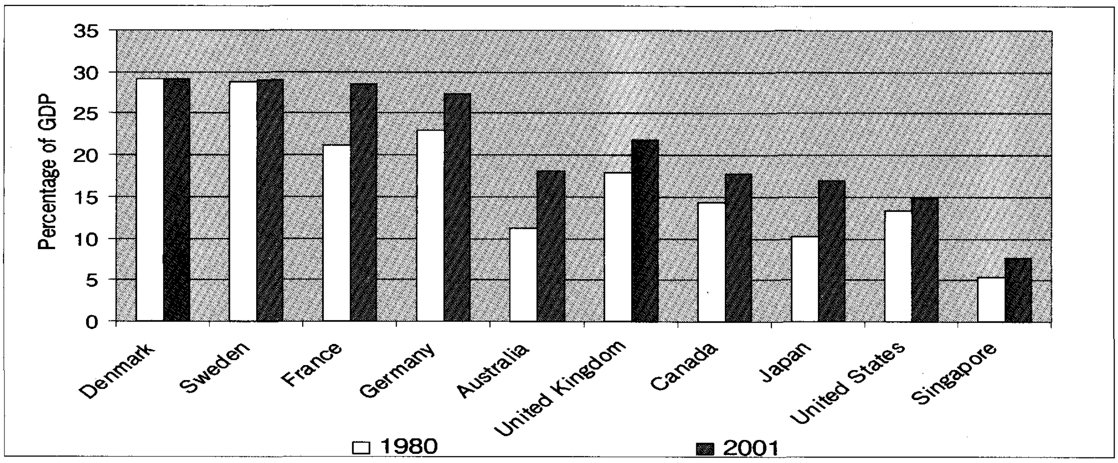
Due to all such factors, especially acceleration caused by the ageing society, existing social security system have appeared more and more burdensome in the recent time showing a quite difficult path for future. A clear picture of the rapidly increasing burden of social security can be reflected in the comparative figures of expenses on social security and national income. For Japan, one of the highly developed, the most industrialized and also swiftly ageing nation, social security expenditure per head, in 1973 index, has increased from 3.3 in 1951 to 1,114.8 in 2001 whereas national income per head has increased from 6.0 to only 331.0 for the same period[2]. Such a trend is not

1) Figures are from "World Population Prospects: 2004 Revision"

2) Data source: National Institute of Population and Social Security Research, Japan. URL: http://www.ipss.go.jp/ss-cost/e/cost01/data/cost2001.pdf

only the case of Japan nor of only developed countries; it is expected to be more serious for the developing countries since they are about to face ageing when their growth will still be stagnant. Organization for Economic Cooperation and Development (OECD) considers social expenditure as a measure of the extent to which governments assume responsibility for supporting the standard of living of disadvantaged or vulnerable groups. Based on the same concept, we can conclude that governments are liable to take the increasing responsibility that means the increased government interference in the economy which is also contrary to the general rule of the market economy. All the selected countries in the figure below show an increased rate of social expenditure while some have reached as high as around 30 percent of the GDP. But, one of the rapidly ageing country, Singapore has attractively kept the social burden far below than other developed ageing countries.

Figure 2. Public Social Expenditure in Selected Countries



Note: Figures for Singapore are for 1995 and 2001.
Public social expenditure comprises cash benefits, direct "in-kind" provision of goods and services, and tax breaks with social purposes in OECD countries while it is the sum of government expenditure for social development for Singapore.
Data Source: OECD (2004), Social Expenditure Database; and Economic Survey of Singapore, 1999, 2002.

1.2 Consequences

Persistently increasing burden of social security has now forced many countries to rethink existing retirement policies and overall social security system. Many contemporary national social security systems- financed largely on pay-as-you-go (PAYG) basis- are presently criticized on the grounds that they will become unaffordable, inefficient, or ineffective in the face of ageing populations, or owing to the competitive forces in the new global economy and to the growth of the informal economy (ILO, 2001a: 47). Some countries are moving from PAYG to fully funded (FF) individual saving accounts, while others are moving from provident scheme providing lump-sum payments at retirement to a social security scheme providing periodical benefits (Ginneken, 2003: 33,34). Debate of social security reform was not limited only in simple social policy but it became major political agenda in America. Many argue that increasing defaulters in Japanese social security system is because of the unsustainable nature of the system. Similarly, aftermath of the recent financial crisis has made the East Asian countries to realize the need of comprehensive social security system. Starting from Chile in 1981, many Latin American countries are introducing some kind of pre-funding elements in their social security systems.

Many study reports argue that switching toward the funded system is the best solution to make the social security system sustainable and financially solvent. Steven Sass and Robert Triest, two participants in the 41st annual economic conference of the Federal Reserve Bank of Boston in June, 1997, argued that increasing pre-funding of social security will restore social security's fiscal solvency, and increase national saving and future living standards. Socially, funded retirement arrangements should provide access to higher benefits, may better shield political risk and fiscal unsustainability, and have less distortionary economic effects (Holzmann, et al 2000:11). Siebert (1998), taking higher rate of return as the measure of efficiency, argues that a funded pension system is better than a pay as you go system when the real rate of interest exceeds the real rate of growth of wages and salaries. He concludes with the superiority of funded system over PAYG. Nonetheless, system can not be switched with no-cost; rather the cost is high for already matured PAYG system. Additionally, some inherent risks are also attached with the funded system and these include mainly inflation risk and risks in the capital market which have great potential to dim the attractions of the funded system. Feldstein's (1998) study suggests that while looking the long run benefits of the funded system, transitional cost is only for the short term and is not the major issue; only the political will is lacking to switch the system for fully funded. While new risks faced by the workers under defined contribution plans might actually be less than risks under an unfunded system, the investment risks may seem more transparent to workers (Mitchell and Smetters, 2003; 7).

Last decade witnessed much debate and study on the designation of social security system especially on its financing structure. Consequently, widely accepted view is towards the development of social tool founded on the following three major pillars.

- First Pillar: mandatory public system financed from taxes or earmarked social security contributions to provide defined benefit with wide coverage and pooling of social risks among the participants.
- Second Pillar: fully funded defined contribution plan with some attraction through tax-relief while providing wide options for the enhancement of accumulated fund.
- Third Pillar: voluntary saving scheme, usually managed by the private sector and having favorable tax treatment.

Many countries have been highly influenced by the system like in Singapore and others many have already implemented the system in their countries with some kind of adjustment basing on country background. With the rise of neoliberal ideas in the last two decades for private provision of welfare in many advanced industrialized countries, there has been discussion of turning present social insurance schemes into provident fund-like programs in order to instill an element of individual responsibility for society's welfare, along the model used by Singapore (White and Goodman, 1998). Social insurance (with contributions from state, employers, and employees) is the model of choice for many other developed and developing nations, which has led to some degree of income redistribution, Singapore has steadfastly held onto this kind of provident fund (Tang, 2000: 44). Praising the provident fund model, Holzmann et al. (2000; 11) in a study report argue that such model has the advantage of the full funding and, in principle, provides a strong benefit-contribution link, thereby avoiding the risks of financial unsustainablity and distortions in pay as you go social insurance schemes arising from benefit formula structure and redistribution. In the favor of the Singaporean practice, Thruow (1997, 108) interestingly comment that history will record that Lee Kuan Yew got it right with his Central Provident Fund (self-financed welfare benefits) while Bismarck got it wrong in Germany with his social welfare system of intergenerational transfers.

However, Singaporean practice of social security is not a unique example to gain only the upside expressions instead there also exist downside discussions regarding the performance of the system. In the view of Low and Choon (2004; 205,6) CPF's greatest challenge is how to preserve old age security, have members' interests as its top priority rather than serve state interests first and members only as the "directed" outcome. They purpose three alternatives for the better prospects of the CPF with focus on investment functioning. One option is to reduce the state's role- wholly or partially privatize the CPF for its investment. While next alternative is to completely delink and privatize the investment activities of the CPF. The third option is the mid-way path which aims to split the CPF balance into two parts; one will remain on state's control and next serves the members' intention. International Monetary Fund (2000) identifies low returns and heavy pre-retirement withdrawals as the two main weaknesses in CPF and proposes to narrow the scheme to a core pension fund and develop other market-mechanisms to increase discretionary savings. Similarly, Inadequate balance, lack of inflation and longevity protection, lack of survivors benefits, lack of transparency and accountability, inadequate social-risk pooling in health care and absence of tax-financed redistributive tier are the major limitations pointed out by Asher (2002). His major suggestions are to eliminate the implicit tax on CPF, minimize the transaction costs and develop the annuity markets.

To conclude the section, ageing has become common characteristics of both developed and developing countries and social security system is one of the most affected sectors. Besides ageing, maturation of the schemes, expansion in coverage and benefits, and deterioration in traditionally existed family supports and communal services are the causes for increasing social security burden. Most of the developed countries which have pay as you go based social security system are already in critical condition to keep the existing system into operation. The case of developing countries is of different nature as there is still a problem of extension of the social security services to a greater range of population including the people in informal economy.

However for developing countries, ageing, which is still moderate, is about to pose more serious circumstances since it is quite possible to them to have aged population before getting the economy developed. In these circumstances, many countries have recently considering, modifying, and replacing the existing systems with new approaches to contain the elements of pre-funding in the system to make them sustainable and solvent. In the process, Singaporean system has become an important example not only because of its self-funded nature but also due to its unique characteristics to rely almost exclusively on a single consolidated social instrument, Central Provident Fund.

Amid the positive and negative expressions by various scholars, this study is aimed to analyze the Singaporean system of social security. With an overview of the social security mechanism in Singapore, this paper goes through the various schemes served by the CPF with focus on retirement financing. Existing issues in the Central Provident Fund are identified to develop the Singaporean practice as the comprehensive instrument of social security while coping with the ageing population. Rest sections of the study are outlined in the following way. Section 2 briefly examines the socio-economic background in Singapore. Section 3 summarizes the major components of social security system in Singapore and the rest part is mainly devoted for the discussion on the Central Provident Fund which is the fundamental component. Section 4 is for the working of the CPF which goes through the various schemes covered by the plan. Section 5 reviews the basic performance of the CPF over last two decades. Concluding remarks have been made after analyzing the existing issues in the section earlier. However this study is not focused to analyze the funded system in itself rather presumes the superiority of funded system over PAYG as found in the literature and concentrates only on Singaporean practice in the field of social security.

2. Socio-economic Background: Singapore

A city state, Singapore has been ranked as world's second most competitive economy after United States by the World Competitiveness Yearbook in its 2004 edition. Remarkable economic growth of the economy during the last few decades has ranked it among the high per capita income countries in the world. The per capita GDP of US$

427 in 1960 had increased rapidly to exceed US$ 20,000 by 1994 and has currently reached to US$ 25,191 for 2004 (Singapore, Department of Statistics, 2005). Country is maintaining one of the highest saving ratios (47% of GDP for the year 2003) in the world. Small country located in the heart of the Asia, has well developed social as well as economic infrastructure, large amount of market openness (external trade is 294.5 percent of the GDP as of 2003) and highly developed financial market. Singapore has built itself up from a small trade entrepot to a leading international financial center, ranking fourth in the world behind London, New York and Tokyo in foreign exchange trading, and fifth in derivatives trading (IMF, 2000: 26).

Industrialized economy largely depends on the service sector contributing more than two-thirds of the GDP while agriculture sector plays insignificant role. Government has also managed to keep the unemployment rate at a low level - the highest rate for the last 15 years is 4.7 percent in 2003 (ADB, 2004). Singapore enjoys high level of living standard (measured in terms of GDP per capita in PPP) and the human development index (HDI) ranking the second after Japan in Asia and is comparable with many western countries[3]. Similarly, the poverty has been largely eradicated and only the small pockets still exist (Department of Statistics, 2001a: 84).

Just like the rapid economic expansion in short period, Singapore is now experiencing short transitional period for its younger population to be older. Singapore's total fertility has fallen below the replacement rate (2.1) since 1977 and is 1.26 for the year 2003 with the total population slightly more than 4 million[4]. Falling fertility rate is supported by the increasing lifespan for the rapid change in demographic composition. While the old age (65 and over) dependency rose from 5.9 in 1970 to 10.2 in 2000, the child (below 15) dependency has decreased by more than half to 30.1 from 68.1 for the same period.

3) According to Human Development Report 2004, Japan and Singapore respectively rank 9th (0.938) and 25th (0.902) in HDI; and 15th (US$ 26,940) and 22nd (US$24,040) in standard of living for the year 2002.

4) Total population (4.2 million in 2003) comprises Singapore residents (3.4 million) and non-residents. The resident population comprises Singapore citizens and permanent residents. Singapore permanent residents refer to non-citizens who have been granted for permanent resident in Singapore. Figure for replacement rate is from Department of Statistics, Singapore and is different than that in the appendix table.

Consequently, while it is expected to take 81 years (1933-2014) for the percentage of its population aged 60 and older to increase from 10 to 20 percent for the United States, it is expected to take only 18 years in Singapore (1999-2017) (Turner, 2002: 2). These scenarios are seemed to pose serious challenges in both the social as well as economic sectors. Ageing is causing the increased social cost, on the one hand and on the other, proportion of productive manpower is also falling. Labor force participation rate of 68.6 in 2000 was the climax point for last three decades and has already fallen to 64.2 by the year 2004. Similarly, per capita government expenditure on health has increased by more than 100 percent for a decade from $231 in 1993 to $489 in 2003[5].

Thus conclusion can be drawn that Singapore has changed itself from one of the third world country to a first world in short period of time. Highly competitive economy, well developed financial market, large amount of market openness and low level of unemployment constitute the major characteristics of the Singaporean economy. However, concurrently rapidly growing country is also facing a rapid trend of ageing inviting problematic socio-economic consequences.

3. Components of Social Security System in Singapore

3.1 Central Provident Fund (CPF)

Singapore has various schemes for the social security purpose but the country shows its special characteristic on near exclusive reliance on self-funded, mandatory, publicly managed single social instrument - Central Provident Fund (CPF). Beyond the major instrument of social security, CPF is also a policy tool for social stability as well as social control in Singapore (see also Tang 2000; 38). CPF was originally introduced by the colonial government in 1955 as an old-age retirement scheme and asset is accumulated through the portable individual accounts based on defined contribution. The original aim of the CPF was to provide 40 percent of average needs of people after their retirement (Tang, 2000; 48). CPF Board, however, recognizes itself as the trustee of its members' savings and seeks to protect and preserve the value of the accumulated fund

5) Unless otherwise stated, $ refers to Singaporean dollar. As of 20th June 2005, US$ 1= S$ 1.675 and ¥100 = S$1.531.

while basic purpose is to help members meet primary needs like shelter, food, clothing and health services in their old age or when they are no longer able to work (CPF Board webpage, 2005).

Not only the CPF has recently widened to cover various schemes like retirement support, housing, healthcare and family protection; it has also made the investment return floating and provides wider options for investment of the accumulated fund. Further, when the ageing appeared in its accelerated rate, government has started to provide ad hoc contribution time to time and also introduced additional schemes targeting to the older people since the 1990s. CPF covers citizens and the permanent residents[6] of Singapore (aged 16 and over) and fund is accumulated on three separate accounts for the different purposes of retirement support, health care and contingency. Various provisions have also been made to withdraw the saving in specified limit before retirement especially for housing and healthcare. Due to the self-funded nature of the scheme, the payout in the retirement life or withdrawal limitation for other various approved purposes at any earlier time depends on the savings (with the added amount of interest or dividends) that the individual members have set aside. Considering the administrative aspects of the CPF, many scholars blame that government administers with its paternalistic right and least room is left for the reflection of participants' aspiration, resulting the dominance of stakeholders rather than shareholders. Government presumes CPF as the means of resources for social and economic aims and also uses as the strategic tool in the government policy efforts (see Asher 1999, Low and Choon 2004, IMF 2000). The CPF, inherited by the people's Action Party government in 1959, began to play a more political economy role and less of social security function for the simple reason that housing was a most immediate and pressing concern; social security and old age financing were more distant problems (Low and Choon, 2004; 71,2). Much is discussed in the later sections about the CPF.

3.2 Non-contributory Old-age Pension

Besides the major instrument CPF, Singapore also serves by the non-contributory

6) See footnote 4)

pension system to the civil servants but it covers only a certain group of employees employed in public sector. The eligibility criteria for receiving pension have been progressively tightened and among those currently employed, only the top official in civil service, armed forces, judiciary and the legislature are eligible (Ramesh, 2000: 58). In the process of narrowing coverage, lower division government employees in 1973 and later in 1977, employees of all levels were given choice to shift towards the CPF scheme. The main incentives for shifting to the CPF for the individual civil servant are availability of the public housing finance under the CPF scheme, and the portability feature of the CPF (Asher and Rajan, 2002: 247). As of 1995, there were 23,000 (1.26 percent of total employees at that time) eligible for the scheme while the expenditure on pension was limited in one percent of the total budget expenditure. Introduced in 1994, government pensionable employees can benefit from any of the three plans: monthly pension until death or lump sum payment of full pension amount or combination of both. Lump sum amount is calculated based on the 26 years of pension amount but with the reduction of 5 percent per year considering it as the returns that the beneficiaries can earn in the sum paid as a lump sum.

3.3 Social Assistance Schemes

No unemployment insurance is administered in Singapore; various kinds of social assistance schemes are in practice but their coverage and effectiveness has remained quite limited. Government has emphasized education and housing in the social sector, while healthcare, public assistance, and other social protection schemes have received negligible budgetary allocation (Asher and Rajan, 2002 : 235,6). Only 2,583 persons were benefited under the public assistance by the total sum of S$7.7 million in the year 2002 and figures remained even smaller for the year 2003 (MCD, 2004). However, recently government seeks to pay more attention towards its assistance aspect for the needy[7]. Still, the level of support remains too low relative to the total budget expenditure. Socially, the state could afford to do more but refrains from doing so (Tang, 2000; 59)

7) As emphasized in budget speech 2004, over $200 million was given out in the form of tax relief and rebates, and more than $100 million has been disbursed under the baby bonus scheme as a means of encouraging for child birth as a part of recently introduced assistance.

and encourages for the self-responsibility and community coordination. Moreover, government provides its financial assistance basically at the source, for example-Housing Development Board for people in rent arrears, Nursing Home for subsidy towards frail, aged or sick and also to the voluntary organizations while limiting direct means-tested support.

3.4 Supplementary Retirement Scheme

Newly introduced in 2001, Supplementary Retirement Scheme (SRS) is a scheme to supplement (non-members of CPF) as well as complement (CPF members) the CPF, which is meant to enhance the saving in tax-advantaged manner. Scheme is administered by the private sector and all the residents can voluntarily join. The SRS contribution rate for Singaporeans and Singapore Permanent Residents (SPRs) is 15 percent while it is 35 percent to the foreigners, subject to a ceiling. Under this scheme, employers are not required to contribute. Contribution with added investment income (except dividend income) is accumulated in the account with tax exemption however 50 percent of the total accumulation will be taxed during statutory withdrawal. As only about a third of the labor force currently is liable for individual income tax, the SRS scheme is of relevance only to the top one-third of labor force (Asher and Karunarathne: 2001, 8). Thus, this scheme is to encourage the richer group to save higher to maintain better standard during retirement and doesn't make any sense to low income earners. Under the scheme, not only tax is imposed to premature withdrawal but is also subject to a 5 percent penalty. Coverage of the SRS remains quite low; only around 24 thousand (1.1 percent of the total labor force in the country) account holders have accumulated a sum of $548 million under SRS as of end 2003.

3.5 Others

Despite of these major components of the social security system, Singapore encourages voluntary organizations to work in this field. Though, in general case, the voluntary services rendered by the voluntary organizations may not be regarded as the integral part of the social security services, Singapore's case is highly noticeable[8)]. Government encourages and supports such mechanism of providing social services and this has notable contribution in the field of social security. Further, as a matter of fact, Singapore rejects the social security mechanism as in many developed countries where the state takes substantial responsibility to help poor, disadvantaged and the vulnerable group of the society[9]. The system of welfare provision in Singapore fits into what may be loosely defined as the East Asian or Confucianist welfare model, based on a partnership between the voluntary sector and government (Jones, 2002: 62). Thus, primary role of providing personal social services is not played by the government and priority is given to the voluntary organizations and family supports. Practice of voluntary services has existed in Singapore since long back and government is continuously promoting for it. Singapore already had a long history of voluntary welfare activities especially among the Chinese to help individual and family needs but they were unable to cope with the urgent needs occasioned by the war and the Japanese occupation (Low and Choon, 2004; 14).

In the city state, number of the volunteer organizations enlisted by National Council for Social Services (NCSS) has currently reached to 620 which provide various kinds of support to the people in difficulty. Social services provided by such organizations are like providing care and support for the elderly and disabled, counseling for individuals and families in different aspects, accommodation and support in kind for the destitute, community health services and other various help for the needy. Besides the explicit functions, creation of cooperative community, building the social solidarity and enhancing the feeling of self-ethic should be understood as the implicit benefits offered through such voluntary activities in the field of social security. These implicit functions of the voluntary services are helping to keep the traditional means of social security still alive by fostering the family and communal bond on the one hand and at the same time their role is very influential to minimize the social risks by contributing towards

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8) National volunteerism rate is 14.9 for the year 2002 in Singapore which is 60 percent higher than the figure for 2000, 9.3 (MCDS, 2004: 7).

9) Budget 1998 has emphasized this fact: extensive welfare programs damage the fabric of our society as they discourage individual responsibility, self reliance, community support and the work ethic. Similar reality is also reflected in the budget 2005 which argues social compact in Singapore is based on personal responsibility, with the family and community playing key roles in supporting people through difficulties. The state will provide a safety net, but it should be a last resort, not a first resort, and should focus on the minority who need the help the most.

the stable society. While government supports given to such organizations are in the form of funding, land leased at special rates, training to the staffs, guidance in the program planning and also the providence of various basic accessories.

To sum up the section, besides the fundamental scheme of social security, CPF, plans to serve social security in Singapore are old age non-contributory pension scheme, social assistance schemes, voluntary saving scheme; and voluntary activities are also managed remarkably providing the services of social security. Non-contributory pension plan is narrowing its coverage and is of interest only for the high official government employees and some others in specified bodies so does not concern the most of the common people. Non-mandatory saving scheme (SRS), though very new, is also working in the favor of the high income earners where any participant can accumulate the saving in tax-advantaged manner. Low income earners do not have capacity to go to SRS beyond the preferable option, CPF. Assistance schemes remain strictly restrained to serve the low income people sufficiently. The influence of the voluntary activities is rather worthy. Nonetheless, such services can not be overly apprehended in the line of other social security measures till now. Thus, basic structure of the social security is not in the favor of the low income groups of the society.

4. Working of Central Provident Fund

Being a mandatory saving scheme, every individual member needs to accumulate a part of their monthly earnings in their personal CPF accounts. Currently, CPF balances are accumulated through the following three accounts and each member and their corresponding employer are required to contribute in specified percentage on monthly basis.

- Ordinary account, which is the most important account, is widely designed to cover housing, approved investments, tertiary education, mortgage insurance and topping-up of the parents' Retirement accounts.
- Special account was introduced in 1977 to accumulate saving for contingency purposes while saving of this account is also permitted to invest on retirement

related financial products.

- Established in 1984, Medisave account is designed to cover hospitalization expenses, approved outpatient treatments such as chemotherapy and radiotherapy, and approved medical insurance.

4.1 Various Components of CPF

a. Home Ownership

Public housing scheme was set up in 1968 which allows members to use CPF savings to buy the flats built by public sector statutory board of which Housing and Development Board (HDB) is the main one. Under the Residential properties scheme, members can use their CPF savings to buy private residential properties and executive condominiums, and to pay their housing loan installments. CPF has helped to build the nation to be one of the high homeownership rates in the world. In 1980, home ownership rate was 58.8 percent in Singapore which has reached to 92.3 percent by 2000 and out of this 93.2 percent live in HDB flats which is provided under the CPF scheme. By the year 2002, 95 percent employees aged 21 and above own public housing properties bought with CPF savings (CPF, Annual Report, 2003). Without doubt, it can be claimed that home ownership became the most influential implicit objective of the CPF particularly for last two decades while none of the activities were much powerful for the first two decades as the CPF plan was in evolving phase. However, twisted goal taken by the CPF has the social benefits including the social stability, but has left low saving for the retirement.

b. Health Care

Medisave account was introduced for the healthcare purpose and also covers self-employed since 1992. Later, considering insufficiency of the Medisave funds to finance the costly treatments, Medishield and Medishield plus schemes were introduced. Medishield is a medical insurance scheme that helps members and their dependants meet the costs of treatment for serious illnesses or prolonged hospitalization. Medishield plus is same as Medishield but provides better facilities with higher premiums. However both Medishield and Medishield plus are for the catastrophic medical illness and extension of the coverage is subject to only good health. Under the Private medical insurance scheme, members can also join with their dependants for the private insurance for the healthcare purposes instead of the Medishield or Medishield plus and can withdraw up to $660 per insured person from the Medisave account for the same. Eldershield is recently lunched in 2002 as a long term insurance plan which protects for severe disabilities by providing lifetime coverage once the premium period is finished.

Singapore manages its health care system in cost effective way. Health care expenditure remained around 3 percent of the GDP for the decade of 1990s and was only 1.3 percent for the year 2003 as compared to 11 percent in Thailand, 2.5 percent in Brunei, 2.1 percent in Malaysia (Channel News Asia International, Oct. 22, 2004). In 2000, Singapore was ranked 6th for its health system- the only Asian country apart from Japan among the top 50 countries - while USA was on 37th despite of 14 percent of GDP it spends on health[10]. Among ASEAN countries, Singapore manages to get the best value for every dollar it spends on healthcare (Channel News Asia International, Oct. 22, 2004). However, ageing seems to appear as the serious burden in health sector too for the time to come. An NUS/SP study commissioned by Health Ministry estimated that national health expenditure will grow to 7% of GDP by the year 2030, due to the ageing factor alone[11] implying that ageing will have a serious impact on healthcare management.

c. Family Protection

Notwithstanding the personal account based funded system, CPF contains many provisions to support the family members or the dependents which have also helped to keep close family bond, in addition to the financial support in need[12]. A study by

10) First-ever ranking of the world's health systems was done by the World Health Organization which compared the overall level of the population's health, its system's responsiveness, and burden of the health system within the population.

11) Cited in the speech by Mr. Yeo Cheow Tong, minister of health, at the NHC Research and Education Lunchtime Lecture, 11th Nov. 1998.

12) Close family bond is reflected also in the survey result that children are the major source of income for the 78.1 percent of total individuals aged 65 and more in Singapore (Ministry of Community Development, 1999). Moreover, as of end 2004, 54 percent CPF members are insured under Dependent's protection scheme though it is optional to the members.

Knodel and Debavalya (1997) found that the percentage of elderly living with children was highest in Singapore compared to Philippines, Thailand and Vietnam. Provisions of family support along with the existing living arrangement have also become helpful means to encourage traditional family support and community coordination which, in turn, help to minimize the social burden of ageing. Dependents' protection scheme (DPS) and the Home protection scheme (HPS) are specially designed to protect the families financially in the case of disability or death of the member. HPS, the first scheme containing insurance element under CPF, was introduced in 1982 which guarantees the required mortgage repayment for members purchasing public housing using CPF funds. Topping up of the Minimum sum scheme allows top-up the parents' or the spouse's retirement account by using the saving in their own account. Medishield and Medishield plus also cover the approved medical treatment for the dependants of the member.

d. Others

Other various schemes are also in practice to make the service much efficient and effective. Basically a loan service, Education scheme helps CPF members to finance their children's or their own tertiary education. Some privileges are offered to the members by providing free shares or discounted shares. Discounted Singapore telecom shares were offered to the members in 1993 and 1996. The New Singapore Shares (NSS) are to help the lower income group tide over the economic downturn, established in 2001. Just started in 2003, Economic structuring shares[13] (ERS) are to help the Singaporeans adapt to the structural changes in the economy. A total of $870.8 million was given out in first lot (2003) to 2.14 million adult Singaporeans and $813.8 million was to 2.14 million in second lot (2004). Both the NSS and ERS will earn annual dividends, in the form of bonus shares, over 5 years. Various schemes operated under the Central Provident Fund are in appendix table 1.

13) Shares are provided, in three lots, only to the Singaporean citizens aged 21 and over with having CPF contribution of at least $50 in last year. The shares, each worth $1, are non-tradable and non-transferable.

4.2 Contributions and Withdrawals

Currently the rate of contribution varies from the highest rate of 33 (20 by employees and 13 by employers) percent to as low as 6.4 percent depending on the category of work and age subject to a certain salary ceiling. However the joint contribution of the employees and the employer has ranged from the minimum rate of 5 percent, in the inception, to 50 percent during 1984 and 1985. Frequent revisions in contribution rate reflect that government has not considered the CPF only as the tool of the social security but has also used as the policy instrument to maintain stability during economic swings. While reviewing the contribution rates, government is prioritizing the supply side of the economy as reflected on the generous contribution cut for the employers than that of employees in most of the cases.

Members are required to accumulate more than 65 percent of total contribution in ordinary account during the early age of the working life and proportion directed to Medisave account goes on increasing for the older generation of employees (appendix table 2). Self employed can personally decide whether to join in the scheme, however compulsion is for those exceeding certain specified income (currently $6000 yearly). Long run target for the joint contribution by employees and the employers is to be between 30 to 36 percent of the wage. Currently existing salary ceiling of $5000 is also planned to cut to $4,500 by the start of 2006. All the mandatory savings and thereby earned investment returns (except dividends) are tax-exempted. However, for the low income earners who are already below the income tax regime, there is not any meaning of the tax-exempted mechanism in the CPF and the scheme can almost be seen as the mandatory and controlled saving plan. Withdrawals permitted to the members under different provisions can be categorized into the following three phases.

- **Working life I**: members can withdraw their saving only for the certain permitted schemes like home ownership, healthcare, insurance, education loan, dependents' support.
- **Working life II**: members can withdraw their saving when they turn 55 after setting aside a certain minimum sum in new account (Retirement Account) for retirement purpose.

- **Retirement life**: After reaching 62 (formal retirement age), members can arrange their saving to get regular income for the rest of life or CPF board itself will manage for that.

4.3 Investment Options and Returns

Investment option to the members was provided with the introduction of Singapore bus service Ltd share scheme in 1978, for the first time. Later in 1986, Approved investment scheme (AIS) and the Non-residential properties scheme were introduced to provide wider options to the members. The Non-residential properties scheme enables members to enhance their CPF savings by investing in non-residential properties. Revision on investment options was done with the establishment of CPF investment scheme (CPFIS) in 1997 which also replaced existing AIS. Under the CPFIS, members can invest their CPF savings in shares and loan stocks, unit trusts, government bonds, statutory board bonds, bank deposits, fund management accounts, endowment insurance policies, investment-linked insurance policies (ILPs), exchange traded funds (ETFs) and gold, however only on or through the certain specified institutions.

CPFIS treats the savings in ordinary and special accounts separately, allowing different instruments for investment and their method of investment also differs. Full investment of ordinary account saving is permitted for most of the instruments listed above while only up to 35 percent of investible saving on shares, property funds (or real estate investment trusts) and corporate bonds, and up to 10 percent on gold is allowed after reserving certain amount for the cost as well as risk on investment. For the saving in special account, investment choice is much restricted without any option to invest in fund management accounts, shares, property funds, corporate bonds and gold. To invest the saving in ordinary account, members should go through one of the three specified banks after opening CPF investment account there, while in the case of special account saving, CPF Board itself will liaise with the alternative product providers to process for the investment. Currently, there are three fixed deposit banks, twelve insurance companies, one investment administrator, and thirty-three fund management companies through which members are authorized to channel their savings. At the end period of 2004, only 28 percent of the total investible fund under CPFIS is invested by the members, out of which some 66 percent is on insurance policies.

In summary, notwithstanding some minor ad hoc contribution provided by the government, CPF members have to depend individually on their own and the employers' contribution, and the returns in the fund for their old age. Various schemes have been developed, particularly recently, so that members are utilizing their own saving in more planned way mainly for goods of social need. High home ownership is the important contribution that the pre-retirement withdrawal has made. Similarly, schemes of family and dependants' protection have the benefit of keeping the family bond tight which could enhance the traditionally existed family support to be still alive. Contributions are accumulated in tax-exempted manner which is the major attraction to join the CPF for the people with taxable income. But there is not any special attraction for the people who lie below the income tax threshold. Though the investment provisions are much liberalized in recent time than earlier, they are still well-restricted and controlled to access the competitive market. Due to the limited range of investment options members are hesitating to invest their permitted savings.

5. General Performance over Last Two Decades

Though liberalization of the CPF was initiated with the introduction of approved housing scheme in 1968, many schemes were introduced in 1980s and 1990s which have enhanced the scope of the Fund while providing various options to the members. In addition to the various schemes introduced, rate of return on members' balance was made floating- attached with the performance of the local major banks- since 1986. Medisave scheme was made mandatory to the self employed too, since 1992. Moreover, contribution rate has also remained more stable in latter time however varying rates were introduced on the basis of age group and the work category. Coverage of the Scheme has also increased significantly; 86.7 percent of the resident population was the CPF members in the year 2003. We can see in the table below that how some major variables have changed over the period.

Table 1. Comparative Figures for Members, Contribution, Balance, Balance Index and Contribution Rate

Years	No. of Members (in thousand)	No. of Active Members* (in thousand)	Members' Contribution (MC) (in million $)	Members' Balance (MB) (in million $)	Balance Index (MB/MC)	Contribution Rate (weighted average)
1983	1779	918	4491	19505	4.34	45.5
1993	2456	1107	10427	52334	5.01	40
2003	2978	1283	15870	103540	6.52	35.3

*Active Member refers to a member who has made at least one contribution during the preceding 3 months' period. The figure excludes self-employed who are not employees currently. No exact information is available regarding the inactive members. However number of members who default to pay their contribution may not be so high in Singapore because there is only very small number of default employers. It has remained around 0.5 percent of the active employers in recent years.
Source: Appendix Table 1 and Annual Reports of Various Years, CPF Board, Singapore.

We can notice in the table that all the figures show upward trend but the contribution rate being opposite. Increase in members' balance over their contribution is reflected in the balance index as measured by the total balance in proportion of the contribution made by the members, notwithstanding the fall in contribution rate. But, in a funded system such a low pace of increase of the balance does not seem to afford the cost of longevity that Singapore is now facing. Periodic growth is calculated in the table below for the similar variables as above.

For both the periods, growth rate of the active members remained below than that of total members while the growth of total balance exceeded that of the total contribution albeit marginally. Similarly, growth rate of all the variables remained fairly below for the period 1993-2003 than that of earlier. But what we can see in the last row of the table is fall in the growth rate of active member and the total balance are quite below than that of total members and total contribution respectively over the periods. This implies that higher proportion of active members and better asset accumulation in the members' account for the latter period. Despite of these improvements in the latter period, contribution burden to the members and respective employees jointly remained 9.4 percentage points down than the earlier.[14)]

14) Fall in the contribution rate is much higher because low rate of contribution for older ↗

Table 2. Periodic Growth Rate of Members, Contribution and Balance

Periods	Total Members	Active Members	Total Contribution	Total Balance	Rate of Contribution*
1983-1993	38.1	20.6	132.2	168.3	40.5
1993-2003	21.3	15.9	52.2	78.8	36.3
Percentage decrease over two periods	44.1	22.8	60.5	41.9	9.4

*Weighted average for the period.
Source: Appendix Table 3 and Annual Report of Various years, CPF Board, Singapore.

Thus, remaining within the coverage of the CPF, progress can be seen in the later period than the earlier. Despite the lesser burden mandated to the members and the employers in the later time, members' balance is accumulated in higher proportion. Beyond these basic improvements in the CPF, there still exist some major issues which are discussed in the next section.

6. Existing Issues in Central Provident Fund

6.1 Low Replacement Rate

Replacement rate - the percentage of pre-retirement salary that is available to a worker during retirement - is taken as the measurement of the adequacy of the retirement income to maintain the basic living standard during the retired life of the worker. Many scholars agree for the two third of the basic working salary as the benchmark replacement rate. In the case of Singapore, despite the high rate of mandatory contribution[15)], the balance on CPF account has increased in a low pace which has caused the low estimation of the replacement rate. Simulation study performed by Wong and Donghyun in 1997 shows that replacement ratio provided by

↘ generation was introduced since 1988 which is not taken into consideration while calculating the average rate.

15) When the contribution rate was raised to 30 percent in 1974, it reached even up to 50 percent but has never been below than that (except for certain specified working groups).

the CPF varies within a range of 25-35 percent[16]. Similarly, more recent study made by McCarthy et al. (2002) suggests that, for the base case, CPF saving can yield the replacement rate of 28 percent of the final earnings. These estimations lie far below compared to the replacement rates provided by the mandatory or other schemes in some other countries with relatively low rate of contributions as shown in the table below.

Table 3. Contribution and Gross Replacement Rates, Various Countries

	Contribution Rates[a]	Gross Replacement Rates[b]
Mandatory Defined Contribution Schemes		
Australia	9	41
Malaysia	24	-
Switzerland	15	49
Mexico	16	-
Chile	13	-
Sweden	23	74
Others		
United States	18	56
United Kingdom	22	50
Finland	27	60
Germany	41	55
Japan	28	52
France	49	65

a 1999 figures.
b 1995 figures. Replacement rates at the age of 55.
Source: Singapore: Selected Issues, 2000, International Monetary Fund p 56.

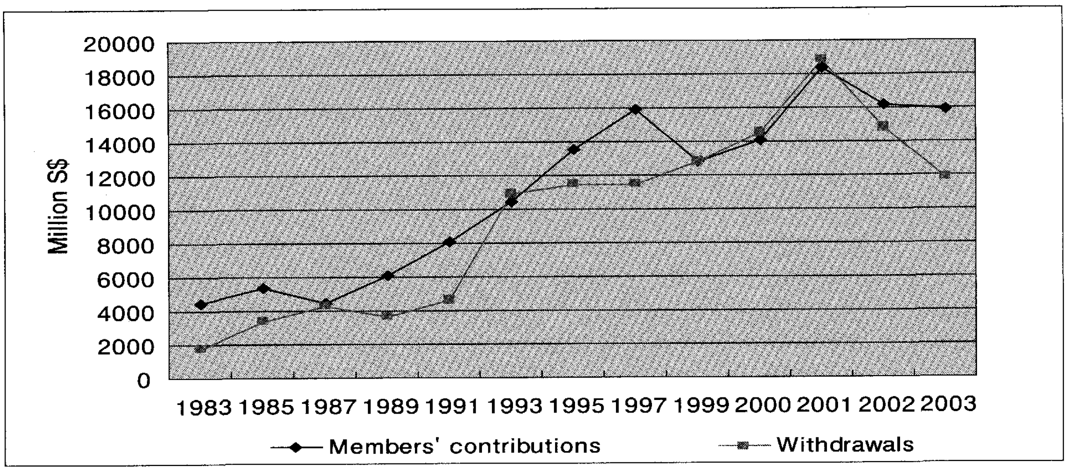
Even CPF Board's estimate is that a person, who contributes till the retirement regularly, will have enough saving to buy a life annuity to provide a monthly retirement income of 20 to 40 percent of last take-home pay. Board's claim is that CPF savings are only meant for basic retirement needs and person desiring better standard and capable for that can save voluntarily through other scheme or privately. There are some important reasons elucidated below why the CPF could only yield a low replacement rate with high rate of contribution mandated.

16) Wong, Daniel and Donghyun, Park (1997) "The Adequacy of CPF for Old Age Support," in East Asian Economic Issues, ed. by John Kendall et al.. Cited in "Singapore: Selected Issues" International Monetary Fund (2000), p 57.

a. Pre-retirement withdrawal

Pre-retirement withdrawal is quite high especially for housing implying that not all the saving is meant for the retirement purpose. Housing scheme designed under the CPF has helped members to own public houses resulting high home ownership ratio in the nation. But the withdrawal made under the housing scheme is quite high which has caused the final saving very low to yield a standard replacement rate in the retired life. Out of the total withdrawals which has even exceeded the contribution for few years, housing shares the highest percentage- for most of the years its percentage is over 60- and only around 20 percent is for retirement or termination of CPF plan. This implies that only a small proportion of saving has meant for the retirement purpose. Trend of members' contributions and the withdrawals are shown in the figure below.

Figure 3. Members' Contributions and Withdrawals (1983-2003)



Data source: Appendix Table 3.

However the provisions of the pre-retirement withdrawal can not be undermined as it greatly contributed for the infrastructural development in the earlier time and also helped to overcome from the deficit financing country to a steady surplus budget since long time back (see also Low and Choon 2004, Asher 1994). Despite the existent of multi-racial, multi-religious and multi-lingual groups, Singapore claims that it boasts one of the most stable societies in Asia (http://www.contactsingapore.org.sg, 2005) and social objectives taken by the CPF might have significant contribution for the same. Thus, undoubtedly, CPF contributed with a good influence to build the compact society of today. But government's nature to stray from the original goal has still remained effectual even with the well developed socio-economic infrastructure and has caused "asset rich but cash poor" people in the country. "To over-encourage upgrading to larger and better housing using CPF funds too often as both expectations and inflation may ensue and such savings may simply being channeled into the brick and mortar of the less productive kind in contrast to productive investment like education and equipment" is the lesson that other countries may wish to avoid from the Singaporean experience (Low and Choon, 2004; 406). This all is to mean that Singapore has unduly emphasized the housing scheme diverting from the prime objective of CPF even when it has built well-furnished social structure.

b. Low rate of real return

In any defined contribution scheme, investment policies and performance of the fund and thereby realizing real rate of return is a crucial element to determine the final replacement rate. But the centrally administered CPF has yielded poor returns to its members over the years. Despite of the highly developed financial market, Singapore shares the common characteristics- poor investment performance-with other provident funds existing in different countries. CPF members have realized even negative real rate of returns in their balances for some years because the guaranteed rates of return are only in nominal terms. The real rate of return yielded by the schemes for some countries are quite high compared to Singapore as shown in the table below.

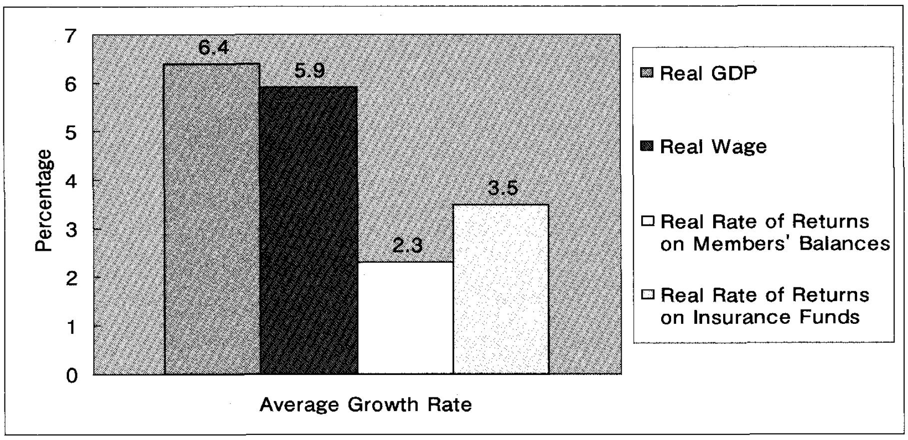
Table 4: Real Annual Pension Fund Returns (1984-1993)

United States	United Kingdom	Japan	Germany	Netherlands	Singapore
10.6	11.8	6.6	7.4	8.0	1.7

Source: Wong, Daniel and Donghyun, Park (1997) and IMF (2000).

Rate of return is not only low as compared to some other developed countries but it is too low to compare with other relevant growth variables within the country as reflected in the graph below. Return on Insurance fund seems somehow better than the members' balances. Diversification of the portfolio is lacking to yield the better returns to the members. Concentration of the Fund is in government bonds rather than diversifying in the international market. Roughly, 85 - 90 percent of CPF funds are in government bonds (Holzmann, et al., 2000; 26). CPF Board recognizes government bonds and advance deposits as the instruments for long term investment. But, in effect, these instruments do not make any significant meaning because they do not have their own quoted market values and the interest rates are pegged to the rates at which Board pays interest to its members. However, some studies argue that real benefit earned by CPF is quite higher than the return provided to the members implying lack of transparency[17].

Figure 4: Average Annual Compounded Growth Rate (AACGR) of some Relevant Variables(1983-2003)



Data Source: Appendix Tables 3, 4 and Department of Statistics, Singapore.

Government has managed CPF in its own paternalistic way and the role of the private sector is debilitated specially in the investment of the fund. Due to the less options provided to the members most of the accumulated saving remains with the Board to accept the administered type of returns. Notwithstanding the rapid development and openness of the economy and the advancement in the capital market, members are still coerced to get satisfied with very low pace of openness in investment of the CPF fund. It will take time for the culture of the state paternalism and "addiction" to the state to change, in tandem with innovative and creative ideas from professional in the private sector (Low and Choon, 2004; 7). However the fact is that rapid trend of ageing and weakening of traditional supports are causing the retirement financing more and more expensive in recent time and subsequently have made the importance of the

17) IMF has estimated the returns of the SGIC (Singapore Government Investment Corporation) for the 1990s to be nearly 10 percent (IMF, 2000, p.57) which is substantially higher than the average rate of return, 3.5 that members achieved for the period.

investment performance brighter.

c. Low effective contribution and rapidly increasing earnings

Mentioned earlier too, CPF contribution is not defined only in the proportion of the earnings but is also restricted by the ceiling, and contribution rate also differs according to work category and age. For the year 2005, contribution rate varies at the highest rate of 33 percent of the wage to as low as 6.4. Ceiling limitation has restricted to high income earners to pay in their full potential. Report by the subcommittee of Economic Review Committee (2002; 8) found that as of December 2001, the monthly salary ceiling for CPF contribution of $6,000 at that time was effective for 92 percent of active CPF members implying that they are not paying in their full potential. Thus rate differentiation and the ceiling provision are causing the rate to be low in effect.

Similarly, rapidly increasing wage level[18)] is also one reason to make the low estimation of replacement rate. High rate of wage expansion has meant that members contributed to the CPF when they had low level of earnings but their replacement rate takes the consideration of higher level of earnings. However, these phenomena do not constitute the fundamental problem in the CPF but are simply causes for the low rate of replacement.

6.2 Lack of Risk Pooling and Protection for Less-advantaged

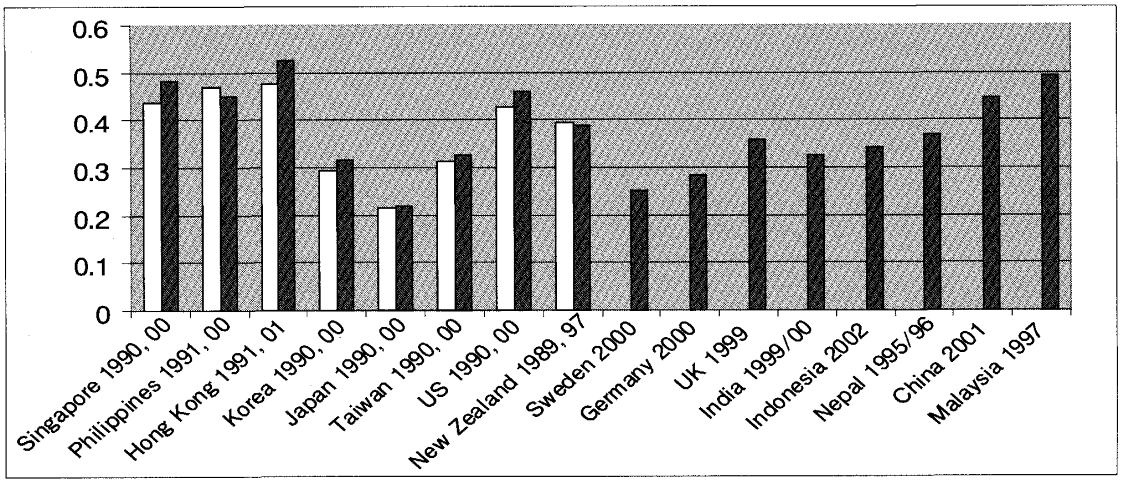
CPF does not have any mechanism to pool the risk among the members nor it has any significant measure for inflation and longevity risks[19)]. While looking the CPF as a social policy instrument, it inherently seems very weak for the redistributive capacity and is also amiss to deal with the non-workforce population like housewives, disables and unemployed since all these groups are not properly captured by the system. Government is providing some kind of ad hoc contribution in the favor of low income

18) Singapore's compounded growth rate of real wage (6.2 percent for 1983-2000) is still fairly higher than the nominal compounded growth rate in United states (4.6 percent for 1980-2000) and nominal average growth rate in United Kingdom (4.2 percent for 1994-2000).

19) Members are allowed to buy the life time annuity for their retired life but such plans have not become attractive because of low benefit.

members but the amount remains quite low[20]. Except this, there is no means of allocating the resources from the better off groups to the worse off in the whole social security arrangements of CPF. Poor redistributive effect of the CPF is also reflected on the high income disparity in the country and its widening trend. The average income of top 20 percent to the lowest 20 has increased from 11.4 in 1990 to 20.9 in 2000 (Department. of Statistics, 2001b, 6). Increasing income inequality in Singapore is higher than many selected developed and developing countries in the figure below.

Figure 5. Gini Coefficient for Selected Developed and Developing Economies



Note: Non-shadowed bar is for initial year.
Sources: Human Development Report 2004, Ministry of Statistics (2002), Singapore.

6.3 Lack of Proper Combination with the Tax System

Not only the risk pooling factor in the CPF is weak, it is not properly combined with the existing tax system. Taxes, mainly income tax which, principally, have redistributive effect in the favor of low income earners, remains relatively low in Singapore. Existing high contribution rate in mandatory saving scheme and low rate of tax structure means that government has left the residents self-reliant to a greater extent while limiting the transfer of income among the different groups of people. Recently government is promising in the budget to support the needy and those with children through the tax relief package but the amount remains still minimum (see section 3.3). Government has focused to keep the cost of doing business low and thus to make the business

20) Various forms of government grant provided to the CPF members remained only 0.8 percent of the budget expenditure for the year 2003.

environment attractive while keeping the assistance provisions through social security in strictly limited range. Government has also utilized CPF as the important macro economic policy tool. In 1999, there was a 10 percentage points cut in contribution rate which might be desirable from the perspective of social security too. But that was not the real reason for which step was taken. Board's 2000 report itself says that cut in contribution was part of a cost-reduction package adopted by the government to lower the cost of doing business in Singapore. Competitive cost considerations exert a downward pressure on social protection and social expenditure as governments and corporations reprioritize budgets, taxes and profits (Low, 2002; 31).

Government has usually focused production (supply) side with less consideration to the consumption pattern of the economy which is also reflected in more generously contracted rate of CPF contribution for the employers than that of employees in economic difficulty. Singapore is making the economy competitive at the detriment of poor group of population. Country's low rates of tax have kept the tax burden also fairly low than other countries as compared in the table below. Government still aims to cut the rate of income tax further but the goods and services tax (VAT), was recently raised from 3 percent to 4 percent in 2003 and from 4 to 5 percent in 2004. Government has made the capitalist elements much influential which has caused low income people largely affected. At the same time, if we differ on economic and social policies, economic policies are less targeted for the social requirements while the social policies are made much responsible for pure economic goals.

Leaving the CPF nearly pure self-funded social security system, without any significant combination with the tax system, it has meant that lacking of the progressive elements in the system is not supplemented by the alternative means- taxation, on the one hand. Concurrently, on the other hand, CPF has not considered probable damages that the changes in financial market may cause. Upheavals in the financial market can cause drastic changes in value of the accumulated fund. Between fiscal years 1993 and 1996, because of the decline in Japanese capital markets, the social security trust fund lost 1.4 trillion yen- 6 percent of its value (Turner, 2001: 25). So, close integration of the social security with the tax system is also important to minimize probable deterioration arising from changes in volatile financial market.

Table 5. Rate of Taxes and Tax Burden in Selected Economies (2003)

Economies	Income Tax (highest rate)	Corporate Tax (highest rate)	Value Added Tax	Tax Burden (2002)
Singapore	20	22	4	15.5
Hong Kong	20	16	..	..
Malaysia	28	28	28	18.5
UK	40*	30*	17.5	41.4
Korea	44*	30.8*	10	23.6
USA	45.6*	39.5*	..	27.4
Australia	47	30	20	31.8
Canada	48.6*	43.4*	7	35.6
Japan	50	30	5	23.2
Sweden	53.3*	28*	25	54.4
Germany	53.8*	54*	16	31.2
France	62.9	41.7*	19.6	39.8

*2001 figures.
Sources: Singapore Budget (2005), International Enterprise Singapore (http://www.iesingapore.gov.sg/) (2005), Japan 2004: An International Comparison (2004) and Revenue Statistics 1965-2003, OECD (2004).

6.4 Lack of Transparency

CPF has not shown its real investment performance to the members and some critics argue that the real return earned is quite up than the rate paid to the account holders. In this aspect, Asher and Rajan (2002) interestingly comment that information is regarded as a strategic resource in Singapore, to be used by the policymakers for the tactical advantages rather than as a public good. Such a non-transparent nature of CPF has worked like an implicit tax on members' saving albeit contribution is accumulated in tax-exempted manner. Holzmann et al (2002; 29) estimate that implicit tax amounted 6.5 percent of the contribution for the year 1997 which was due to the lack of transparency and the public accountability in the channeling of the fund.

Fundamental issues are summarized to conclude the section. As the society is gaining higher life expectancy, inadequacy of the fund is being increasingly discernible and high level of pre-retirement withdrawal and low rate of returns are the major causes behind it. Even with the well-developed compact society, diversifying from the original goal, CPF Board has still remained too generous for the pre-retirement withdrawal.

Investment returns are tied up in administrative way neglecting the potentiality of the global and advanced financial market. Similarly, social instrument is excessively twisted for the pure economic gains. Aim of making people self-reliant and encouraging self-responsibility is unduly emphasized and, in the meantime, risk pooling mechanism is not properly established. Hence, low income and vulnerable groups are left less secured in the system. Further, the linkage between the CPF and the tax system is virtually lacking and concentration is on pure economic benefit (economic competition) rather than social need. This implies that Singapore is paying more attention for economic factors with less consideration on the social aspects. Likewise, non-transparent nature of the CPF board is also affecting members' concern adversely.

7. Conclusions and Policy Implications

Ageing has appeared as one of the most pronounced burden in the field of social services that governments are providing or managing for securing and protecting the basic standard of living to the public. Manifestly, social security systems which are arranged mostly on pay-as-you basis are most affected by the ageing since the proportion of the beneficiaries is soaring compared to the supporters. Besides ageing, expansion in coverage and maturation of the schemes, and fading out of the traditionally existed family supports and communal services are also the reasons for the increase in social security burden. In such circumstances, fully funded or multi-tiered systems of social security have been the model of attraction for many countries at present. Unlike the many other ageing countries, Singapore uniquely depends on Central Provident Fund to provide various forms of social security services to its population and limits its public social expenditure in low level. Country encourages for the personal responsibility and community coordination also through the voluntary organizations, and administers non-contributory pension system and social assistance programs in very narrow range. Newly introduced voluntary saving scheme (SRS) works as both the supplementary and complementary instrument to the CPF but the participation remains very low. Cost effective arrangement for health care and widening role of voluntary organizations also constitute the elegant characteristics in Singapore's overall social security arrangements.

Self funded nature in financing and expansion from the original goal of supporting in old age of the CPF has helped to build the saving ratio and home ownership rate notably high in Singapore. Additionally, collection of fund through CPF and the government policy to allow pre-retirement withdrawal for the goods of social importance should have had a good impact on social stability and economic growth. Similarly, the schemes of family protection have greatly helped to keep the community based family support still alive even in the highly industrialized country by establishing close family bond and has thus superbly contributed to keep the public social burden minimum. But the problem is that pre-retirement withdrawal has remained quite high which consequently left low levels of benefits during retirement to the members.

Since the social infrastructure has already been developed in the country and ageing is being severe, pre-retirement withdrawal should be made tight and the CPF scheme should be properly directed for its original goal- retirement support. Housing, the most dominant component of pre-retirement withdrawals, can be controlled by introducing a loan component (at minimum rate of interest or even zero) for the withdrawal beyond a certain maximum limit which should be repaid by the members or considered while withdrawing the saving at the age of 55. This mechanism will help to limit the housing withdrawal only in the serious need.

Besides the overly emphasized housing scheme in CPF, this fundamental vehicle of social policy is often used for the pure economic goals, as reflected in the frequent revision in the contribution rates too, taking the system farther from illuminating its own original and fundamental social concern. While viewing economic and social policies differently, economic policy is not concerning the social requirements while the social policy is made much responsible for the pure economic goals. Economic stability should not be primarily prioritized in the cost of major objective of the system.

Investment performance is one of the most attractive features of the funded social security system but it is very weak in the case of CPF. Lack of transparency and administered nature of returns to the members have greatly detracted from the real benefits of the funded system.

To overcome the problem, wider options should be provided for the investment, performance should be made transparent and returns should be made performance based. To access the potential financial market and serve the members with real market returns, it is worthy to found a separate independent investment body which will manage a certain part of the fund, starting from the saving in the special account. Rest of the fund will be managed by the CPF Board as usual however guaranteed minimum returns should be made inflation indexed and adjusted based on overall economic performance. This mechanism will also help to share the benefits of the economic growth among all the individuals equally.

CPF is not properly combined with the existing tax system and has remained purely self funded instrument of social security. Though taxation may be more powerful for economic goals and social security may be more influential to fulfill social desires, both are the sources of the revenue to serve the public. So, they should be combined as is done in usual case. Notwithstanding the high level of average living standard, income disparity is quite high and widening further in Singapore. Lack of redistributive effect and risk pooling mechanism are serious shortcomings in the Central Provident Fund. Tax exemption is one of the major advantages for the people with substantial income but there is not any meaningful provision in CPF to attract and benefit the low income earners who already lie below the income tax regime. Supply side dominated government strategy has shown generosity towards the business groups and emphasis is given to make the business environment competitive while low income people have become loser even in the fundamental social instrument. So, CPF can not be regarded as a means of social security for the low income group and the scheme can simply be seen as a mandatory and controlled saving plan for them.

Thus, tax-financed **First Pillar** is severely lacking in the system to make it effective means of social security with a certain minimum level of guarantee to all. For this purpose, tax-financed support should be introduced and, in addition, depending upon the investment performance, certain portion of the returns in the fund can be pooled among the members to guarantee such minimum level of retirement benefit to all while keeping the system solely funded and founded on single instrument. However, Board should introduce vesting period as the eligibility criteria for the minimum guarantee. This will also work as an incentive for individuals to join the CPF and contribute regularly, in addition to the redistributive element in the CPF, while minimizing the problem of moral hazard at the same time. Pooled sum should be used on the pay-as-you-basis which will also minimize the apparent risk in the financial market. With these improvements in the system, Singapore can cope effectively and efficiently with its ageing population. And further, improved form of the CPF could itself elucidate as the worthy model of social security based on funded system for those countries which are looking for the alternatives to replace the existing pay-as-you-go retirement system, with their financial market developed, to make the system sustainable, solvent and efficient.

Appendix: Tables for Reference

Table 1. Various Schemes under the Central Provident Fund

Types	Schemes	Year of Introduction
Home ownership	a) Public housing scheme	1968
	b) Approved residential property scheme	1981
Investment	a) Singapore bus service (1978) Ltd share scheme*	1978
	b) Approved investment scheme	1986
	c) Approved non-residential properties scheme	1986
	d) CPF investment scheme	1997
	e) Share-ownership top-up scheme	1993
Insurance	a) Home protection scheme	1982
	b) Dependent's protection scheme	1989
	c) Medishield scheme	1990
	d) Medishield plus scheme	
	e) Private medical insurance scheme	
	f) Medishield scheme for the elderly (MSE)	2000
	g) Eldershield scheme	2002
Others	a) Medisave scheme	1984
	b) Minimum sum scheme	1987
	c) Topping up of the minimum sum scheme	1987
	d) Education scheme	1989
	e) Medifund scheme	1993
	f) Discounted Singapore telecom shares	1993
	g) CPF top-up scheme	1995
	g) Minimum sum plus scheme	2001
	h) New Singapore shares (NSS)	2001
	i) Economic restructuring shares (ERS)	2003

*The scheme has been renamed as Delgro shares scheme following the bus company's restructuring and change of name to Delgro Corporation Ltd in December 1997. Since then, no new purchases of shares under the Delgro shares scheme are allowed since the company had diversified into other businesses and is no longer just a public transportation company. The scheme would slowly be phased out.
Source: CPF Annual Reports and official press statements, Various Years, Singapore.

Table 2(A) Existing Rate and Allocation of Contributions to the CPF by Age Group

For: 1. Private sector employees
2. Government non-pensionable employees*
3. Non-pensionable employees in statutory bodies and aided schools
4. Singapore permanent resident employees from their third year onwards**.

Employee Age (years)	Contribution as % of wage			Credited into (in percentage)		
	By Employer	By Employee	Total	Ordinary Account	Special Account	Medisave Account
35 & below	13	20	33	22	5	6
Above 35-45	13	20	33	20	6	7
Above 45-50	13	20	33	18	7	8
Above 50-55	11	19	30	15	7	8
Above 55-60	6	12.5	18.5	10.5	0	8
Above 60-65	3.5	7.5	11	2.5	0	8.5
Above 65	3.5	5	8.5	0	0	8.5

Table 2(B) Existing Rate and Allocation of Contributions to the CPF by Age Group

For: 1. Government pensionable employees
2. Pensionable employees in statutory bodies and aided schools

Employee Age (years)	Contribution as % of wage			Credited into (in percentage)		
	By Employer	By Employee	Total	Ordinary Account	Special Account	Medisave Account
35 & below	9.75	15	24.75	16.75	3.75	4.5
Above 35-45	9.75	15	24.75	15	4.5	5.25
Above 45-50	9.75	15	24.75	13.5	5.25	6
Above 50-55	8.25	14.25	22.5	11.25	5.25	6
Above 55-60	4.5	9.375	13.875	7.875	0	6
Above 60-65	2.625	5.625	8.25	2.25	0	6
Above 65	2.625	3.75	6.375	0	0	6.375

Notes:

*Singapore also holds the non-contributory old-age pension system for the civil servants to serve their retired life but the government is narrowing its coverage since 1973 while is providing incentives to switch towards the CPF scheme at the same time.

** Singapore permanent resident employees are required to maintain CPF accounts in their first and second years too but at relatively low rate with age-wise and sector-wise variation.

Source: CPF Board, official homepage (2005), Singapore.

1. These rates are as of Jan. 2005 and are applicable to those whose monthly income exceeds $750. CPF contributions are required for all the employees having monthly salary more than $50. However contributions are made only by the employers for the employees not exceeding the salary $500 per month.
2. Maximum contribution for non-pensionable employees in government ministries and statutory bodies & aided schools are calculated based on a salary ceiling of $5,000. This figure also applies to private sector employees.
3. Maximum contribution for pensionable employees in government ministries and statutory bodies & aided schools groups are calculated based on a salary ceiling of $6,666.67.

Table 3 Selected Indicators for Central provident Fund (1983 - 2003)

Categories	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983
Members (thousand)	2,979.5	2,963.2	2,922.7	2,880.0	2,828.1	2,803.4	2,782.0	2,741.8	2,683.0	2,521.8	2,456.4	2,322.8	2,255.7	2,195.2	2,126.9	2,063.4	1,988.5	1,933.8	1,891.7	1,852.5	1,778.9
Active members (thousand)	1,283.0	1,283.7	1,269.6		1,224.5	1,198.2	1,224.2	1,193.9	1,174.8	1,138.9	1,107.1	1,074.0	1,052.4	1,021.7	988.6	963.8	935.3	912.2	889.6	943.0	917.9
Members' balance, end period (million)	103,539.6	96,422.6	92,221.2	90,298.3	88,396.9	85,276.8	69,657.4	72,556.6	66,035.4	57,649.0	52,334.3	51,526.9	46,049.0	40,646.4	36,051.6	32,529.3	30,607.8	29,341.4	26,834.1	22,670.4	19,504.7
Members' contribution (million)	15,870.0	16,165.7	18,322.3	14,092.8	12,826.6	15,999.8	15,873.8	14,623.0	13,536.1	11,279.0	10,427.0	9,208.2	8,101.4	7,174.2	6,107.5	4,985.1	4,446.8	4,777.8	5,393.4	5,385.2	4,491.0
***Annual Withdrawal**																					
Amount (million)	11,816.5	14,821.4	18,860.4	14,555.9	12,788.6	13,609.8	11,456.5	10,529.6	7,252.7	7,292.0	10,949.2	5,413.1	4,655.6	3,994.7	3,663.5	4,010.5	4,297.5	3,824.3	3,359.9	3,510.7	1,718.4
As % of Contribution	74.5	91.7	97.2	103.3	99.7	85.1	72.2	72.0	53.6	64.6	105.0	58.8	57.5	55.7	60.0	80.4	96.6	80.0	62.3	65.2	38.3
As Percent of Total																					
Housing	61.0	55.4	43.8	59.5	74.5	53.9	50.5	48.0	63.3	48.0	32.1	66.8	64.4	56.4	65.9	69.2	61.6	69.2	76.4	76.7	65.3
Under section 15	20.2	13.6	11.7	11.5	13.0	13.5	13.4	15.4	19.9	18.7	10.8	18.6	20.4	25.5	27.8	19.4	17.2	22.7	20.6	21.0	33.4
Medisave	2.8	2.4	2.0	2.5	2.5	2.5	2.9	2.9	4.0	3.8	2.3	4.4	5.0	5.2	4.9	4.2	3.2	2.7	1.3	0.5	na.
Others	16.0	28.6	42.5	26.5	10.0	30.1	33.2	33.7	12.8	29.5	54.8	10.2	10.2	12.9	6.4	7.2	17.9	5.3	1.7	1.7	1.3
Rate of Return: Members' Balance																					
Implicit interest rate**	3.1	3.1	2.7	2.7	3.6	3.9	3.5	3.5	3.4	2.4	2.6	3.8	4.5	3.7	3.1	3.0	3.7	5.5	6.2	6.1	6.1
Change in implicit GDP deflator	-0.4	-0.5	1.2	1.6	-0.3	-0.5	2.0	1.1	1.5	2.9	3.1	2.9	4.7	5.1	3.1	1.6	0.9	-1.3	-1.2	0.7	3.9
Real rate of return***	3.5	3.6	1.5	1.1	3.9	4.4	1.5	2.4	1.9	-0.5	-0.5	0.9	-0.2	-1.4	0	1.4	2.8	6.8	7.4	5.4	2.2
Rate of Return: Insurance Funds																					
Implict interest rate**	4.3	-0.4	3.1	6.6	6.3	4.9	1.3	4.3	3.8	3.6	9.4	5.1	6.6	4.1	7.6	6.2	5.1	6.4	4.7	na	na
Real rate of return***	4.7	0.1	1.9	5	6.6	5.4	-0.7	3.2	2.3	0.7	6.3	2.2	1.9	-1	4.5	4.6	4.2	7.7	5.9	na	na

*Includes withdrawals under section 15 and CPF Schemes. Withdrawal under section 15 includes withdrawal for retirement, at age 55, death and leaving Singapore and West Malasiya permanently.
** Implicit interest rate is the total interest amount credited to members divided by the average of the beginning and ending balances of the members during the year.
***Real rate of return is estimated as the difference between the implicit interest rate and change in implicit GDP deflator.
Sources:Annual Reports of Various Years, CPF Board, Asher and Karunarathne (2001) Table 2 and Low and Choon (2004) Appendix 2.4a.

Table 4 Macro Economic Indicators for Singapore (1986 - 2003)

Categories	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GDP at current market prices*	39102.5	43266.0	50977.2	58733.5	66884.5	74613.0	81224.4	94289.3	107851.1	118962.7	130020.4	141699.4	137089.1	139615.9	159662.1	154078.0	158064.1	159135.0
As percent of GDP																		
Gross domestic saving	38.0	37.9	41.1	43.0	43.3	45.1	45.5	45.2	48.0	50.2	51.0	52.0	53.3	49.7	47.9	44.0	43.9	46.7
Gross domestic capital formation	37.6	37.7	34.0	34.7	36.4	34.5	35.8	37.4	33.1	34.2	35.8	39.2	32.3	32.0	32.0	24.9	21.2	13.4
Total revenue	38.3	31.9	28.4	29.4	32.3	31.1	32.8	35.6	35.2	36.1	38.2	38.0	31.4	31.5	30.3	27.7	...	...
Total expenditure	29.2	35.3	23.0	22.3	21.3	21.4	19.5	17.3	14.0	16.2	21.1	16.8	20.0	18.8	18.9	22.0	...	...
Overall budgetary surplus/deficit	1.4	-2.7	6.8	10.0	10.8	8.7	12.5	15.5	16.1	14.6	10.5	11.7	3.4	7.2	10.0	5.1		
Exports	126.6	141.6	160.7	151.7	148.2	142.0	133.5	133.4	138.7	141.1	136.7	131.8	134.6	151.0	161.3	155.4	155.5	172.8
Imports	-131.9	-147.2	-160.6	-152.8	-152.6	-142.3	-137.1	-138.1	-136.8	-140.0	-134.2	-130.7	-117.1	-135.9	-147.5	-137.2	-133.0	-140.7
Balance on goods	-5.2	-5.6	0.1	-1.0	-4.4	-0.3	-3.7	-4.7	1.9	1.2	2.4	1.1	17.5	15.1	13.7	18.3	22.5	32.1
Terms of trade	117.3	112.1	109.9	109.6	111.2	108.7	105.1	104.9	101.7	100.0	99.5	97.2	97.0	96.0	93.2	89.3	87.9	113.9
External debt as % of GNI	18.6	18.9	16.0	15.0	12.4	11.1	9.1	9.6	10.6	9.8	10.4	13.7	14.0	16.0	16.0	21.0	23.0	...
Consumer price index	-1.3	0.4	1.5	2.4	3.4	3.4	2.3	2.3	3.1	1.7	1.3	2.0	-0.3	0.1	1.3	1.0	-0.4	0.5
Total populationmillion	2.73	2.77	2.85	2.93	3.05	3.14	3.23	3.32	3.42	3.53	3.67	3.79	3.92	3.95	4.02	4.13	4.17	4.19
Population (annual change, %)	-0.4	1.5	2.9	2.8	4.1	3.0	2.9	2.8	3.0	3.2	4.0	3.3	3.5	0.7	1.7	2.8	0.8	0.3
Life expectancy at birth**	71.8		73.6					75.8					77.2					78.6
Total fertility rate**	1.69		1.71					1.76					1.57					1.35
Old age dependency (65+)					8.5										10.2			
Unemployment rate, %	6.5	4.7	3.3	2.2	2.0	1.9	2.7	1.9	2.0	2.0	2.0	1.8	3.2	3.5	3.1	3.3	4.4	4.7
Labor force participation rate, %	...	...	...	...	66.0	64.8	65.3	64.5	64.9	64.4	64.6	64.2	63.9	64.7	68.6	65.4	64.7	64.2
Central govt. expenditure on*																		
Education	2076	2204	2231	2369	2828	3655	3532	4047	3409	3633	4082	4472	5000	5250	6333	6577	...	...
Health	464	548	608	613	652	994	964	979	1100	1466	1521	1596	1968	1752	1543	1866	...	...
Social security and welfare	182	196	236	282	300	344	365	626	431	955	2893	425	202	413	1069	4202	...	...

Notes: *Figures are in Singaporean dollar (in million).
**Figures are for the periods 1980-85, 1985-90 and so on.
Sources: Asian Development Bank (2004), United Nations (2004) and Department of Statistics, Singapore.

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