

SUPERANNUATION IN AUSTRALIA AND THE CENTRAL PROVIDENT FUND IN SINGAPORE: A COMPARISON OF TWO SYSTEMS

Tapen Sinha, Bond University and
Dipendra Sinha, Macquarie University

Abstract

Recent years have seen the Labor Government in Australia bringing in liberal tax treatments of superannuation. These changes have prompted some analysts to predict a huge growth in superannuation heralding in a trillion dollars to the industry. Taking a cue from the growth of the Central Provident Fund in Singapore, we argue that such a phenomenal growth is unlikely in Australia unless the government forces the employers and the employees to contribute more (a la Singapore). We explore political and economic implications of the two systems. Finally, we compare and contrast the annuity markets in the two countries.

Introduction

Benefits paid to retired individuals in Australia is called superannuation. A superannuation scheme pays currently working individuals when they retire. A similar program exists in Singapore: the Central Provident Fund (CPF). There are some major similarities between the systems: (1) the participants pay into an accumulated fund; (2) the deposits, earnings of the fund are treated favourably by tax authorities; (3) the withdrawal can be made after retirement in a lump sum or in a stream of (annuity) income.

These schemes are different from the so called pay-as-you-go (pay-go) social security scheme in existence in other developed countries. It also differs from the means tested government sponsored pension scheme.

The age pension scheme in Australia is similar to the Social Security scheme in the United States. It was not means tested in any way until the 1980s. In 1983, all age pensioners were income tested for the first time. In 1985, an asset test was also introduced. As a result, in the late 1980s, about 60% of the aged are receiving a full age pension (worth about 25% of average weekly earnings).

In publicly funded pension schemes there is no pooled capital. At every point in time, an intergenerational transfer takes place: the current working population is taxed and the money thus raised is given immediately to the current retirees. If the workers are not taxed, retirees cannot be paid. Consequently, any pay-go scheme will have difficulty if the benefits are increased and taxes are not. For example, if the number of workers in the population falls relative to the number of retirees, the retirees cannot be paid the same benefits as before unless the taxes are raised

on the working population. Similarly, if benefits to the retirees are to be increased, the workers must be taxed at a higher rate unless the pool of new entrants to the work force can bear the burden of the extra cost.

MINTEL (1991) study estimates that the current burden of age pension is about 5% of the GDP in Australia. However, this burden is going to rise to 9% of the GDP by 2020 when the current baby boomers retire. The burden will peak at 12% of the GDP in 2040. If this report is correct, there will be a massive increase in government budget devoted to old age pension. There are only a few avenues open to the government: increase taxes or reduce benefits. Neither will be a popular choice. The government in Australia has recently recognized the problem with pay-go schemes. Hence it is pushing for superannuation schemes.

In the United States, the Social Security Scheme faced such a difficulty in the mid 1980s. Until then, most of the Social Security benefits were increased without proper consideration on where it was going to come from! For example, payments were indexed to the consumer price index following massive inflation of 1974-5. It became clear that such increases will become unsustainable in the future. As a result, the Federal Government legislated changes so as to meet the increased demand for such payment (in the future) as baby boomers of the 1960s approach retirement. Perhaps the more important consequence of the pay-go system is on the long run growth rate of a country: a pay-go scheme can potentially reduce the long term growth rate of an economy (the evidence on such a consequence is mixed, see Sinha, 1988).

The problem with a pay go system has long been recognized in Singapore. In 1959, the State of Singapore Development Plan for 1961-64 decided to eschew any grand social insurance scheme: "Ambitious plans for immediate improvement of social services have to be eschewed. Such a plan can only be implemented by diverting much of the available capital resources from other even more pressing needs. The most pressing need is to increase employment and consequently national income to match the population growth." (p. 6) Instead it started to encourage saving for retirement via the CPF.

The effects of the CPF and possible consequences of superannuation

Between 1955 and 1965, the CPF funds were used mainly for financing long term government projects. Starting in 1965, the CPF members were allowed to buy Housing Development Board (HDB) flats using part of the CPF money. The role of the CPF to finance other residential properties was expanded over the next ten years. In 1978, a scheme was introduced to buy Singapore Bus Service (SBS) shares. The contribution rates of the CPF stayed under 20% (that is, 10% by employer and 10% by employee) until July 1972 reaching a peak of 50% (both for the employer and the employee) in 1986. The massive growth in the CPF funds have produced several results: (1) It has contributed to a spectacular boom in the residential property market. It has prompted policy makers in Singapore to cite as a goal a 100% home ownership rate. This approach has received critical comments from some quarters. For example, Lim et. al (1988, p. 37) wrote "A question as to whether such massive allocation of capital resources into infrastructure development is desirable at the expense of other investments can be raised." (2) It has built a huge foreign exchange reserve for Singapore. In fact, Singapore has one of the highest international reserves (per capita) in the world (International Monetary Fund Yearbook 1989). (3) It has resulted in an 80% investment in government equity by the CPF funds. It has also produced the highest per capita rate of savings in the world. The conventional wisdom in economics dictates that the higher the rate of savings, the higher the rate of capital accumulation, the higher the rate of growth in a country (see, for example, Feldstein 1976). However, when the savings comes from a forced channel (via a compulsory scheme), many researchers argue that too much forced savings may have a negative impact on voluntary savings (Datta and Shome 1981). However, there is a great deal of controversy over the actual results (see, Wong 1986).

The superannuation schemes in Australia are much smaller in scope. (To get a perspective on the size of the superannuation industry, we can compare it with the CPF. In 1985, the size of capital in the CPF was S\$9,000 per capita. At the same time the figure for Australia was about S\$3,500.) The combined contributions of the employer and the employee rarely reaches over 12% of wages. Unlike the CPF in Singapore, superannuation money in Australia cannot be withdrawn for buying residential properties or other kinds of investments.

There is a good prospect for superannuation funds to be invested in internationally diversified portfolios. The Government hopes that such a move will result in the lowering of Australia's

foreign debt and channel resources into productive capital investments.

Australia already has the highest home ownership rate in the OECD countries (The trend of high home ownership in Australia is likely to continue in the foreseeable future). Therefore, the government does not want any more capital to go into property markets.

Legislative Changes for Future Growth of Superannuation in Australia

Changes in law to accelerate savings via superannuation in Australia has been taking place over the last eight years. Most of the future growth in superannuation will come from two major sources: changes in legal requirements of superannuation schemes and preferential tax treatment of contributions to superannuation. Government also wants the individuals to keep most of the accumulated capital in the form of an annuity to prevent any possibility of imprudent spending of money at retirement and then becoming a burden of the State.

The major changes in superannuation schemes in the 1980s are listed in appendix A. (A chronological account of the CPF in Singapore can be found in Lim et al 1986, pp 11-12). The effect of such legislative changes will not be merely cosmetic. Sampson (1990) reports expert opinions on the potential growth of superannuation funds over a period of twenty years:

TABLE 1:

Actual and Projected size of the Superannuation funds in billions of Australian dollars (government plus private) year Sampson (1990)MINTEL (1991)

1980	17
1985	46
1989	108
1995 (estimate)	250-400 356
2000 (estimate)	500-650 915

Sources: Sampson (1990) and MINTEL Report (1991)

There seems to be no broad agreement among the experts in the superannuation industry (especially about what might happen at the turn of the century). The MINTEL study gives some rationale for their projection. It argues that in the past ten years, the size of the industry has grown at the compounded rate of 22% per annum. Hence, it claims *if the rate of growth is sustained*, it will result in a trillion dollar industry at the turn of the century. A simple matter of arithmetic shows that a growth rate is exaggerated when it starts from a small base (a rise from \$1 to \$2 is a 100% rise, but a rise from \$10 to \$11 is only a

10% rise, although the amount of growth in both cases equals \$1). Can such a growth rate be sustained? Is there any precedence of such phenomenal growth in pension funds? The CPF in Singapore provides an example. The size and the growth rate of the CPF is reported in Table 2.

TABLE 2:

The size and growth of the CPF in Singapore

Year	Size of CPF	growth rate (%)
1970	777	
1971	988	27
1972	1316	33
1973	1771	34
1974	2414	36
1975	3235	34
1976	4066	26
1977	4954	22
1978	5981	21
1979	7516	26
1980	9551	27
1981	12150	27
1982	15656	29
1983	19505	25
1984	22670	16

Annual compounded growth rate of 27% (1970-1984)

Source: CPF Annual Reports, various issues

An annual growth rate of 27% sustained for fifteen years is remarkable indeed. However, we need to go beyond the numbers to see why such growth has taken place. The principal source of growth in the CPF has been the increase in the rate of contribution stipulated by the government. If we compare 1970-1984 with the preceding period of 1965-1970, we find annual growth of the CPF has been about 15% (notwithstanding the fact that at the same period, the coverage of the CPF was growing rapidly). Thus, we believe the projected growth rate of the superannuation funds in Australia has been overestimated: the changes in legislation can only produce a "one shot" increase in superannuation funds. It is unlikely to be sustained for a decade.

A comparison superannuation and the CPF

(1) Voluntary versus forced saving: Contribution to the superannuation on the part of the employer is mandatory. However, a major portion of the employee contribution is voluntary. In the CPF scheme, contributions by both the employer and the employee are mandatory. The mandatory nature of the CPF has attracted a lot of criticism both in Singapore and abroad. For example, Lim et al. (1988) argue that "... by absorbing a large proportion of individuals' incomes and by restricting access to them, the CPF tends to limit the freedom of the contributors to use their own incomes." (p. 222)

(2) Proportion of income absorbed: The CPF takes in a very large proportion of income (some 40-50% of gross income). However, it allows the contributors to withdraw funds for housing, medical expenses, and now more recently, for education. The superannuation scheme in Australia is relatively modest (6-15% of gross income). However, none of it can be withdrawn unless the contributor dies or leaves the country permanently.

(3) Centralized versus decentralized: The CPF is a centralized fund. Much of it is invested in government stocks. The superannuation funds are decentralized: there were over 300 of them in 1990 (Bateman et al., 1990, p. 50). However, there is a supervisory federal government body called the Insurance and Superannuation Commission (ISC) which sees its role "to promote the sound working and orderly development of superannuation in accordance with legislation designed to ensure that superannuation schemes are managed prudently in the interest of their members and to encourage the use of superannuation benefits for genuine retirement need." (Insurance and Superannuation Commission, 1989). The actual functioning of the ISC seems to be to protect the contributors from fraud and financially shady dealings by the funds. There is no role of the ISC to supervise the investment strategies of the funds.

(4) Performance of the fund investment: There is no alternative to the CPF for contributors in Singapore. As a result, the performance of the CPF has not received a good deal of scrutiny. Over the period of 1975-1989, the *real rate* of return on the CPF fund has been about 2.78% per annum (the real rates of return in 1973 and 1974 were -11.6% and -12.9% respectively). At the same time, some of the small private funds in Singapore had provided over 6% real return per annum. When such a situation is compared with superannuation funds in Australia, we find even starker contrast: the asset weighted average real rate of return of the superannuation funds over the same time period was over 7% per annum. This brings out the real drawback in a centralized pension scheme without any alternatives. Lim et al (1986) wrote "Other provident funds in Singapore have earned rates of return for their members higher than the [rate] paid by the CPF. They have accomplished this by holding asset portfolios composed of equities, fixed deposits, and government securities. The CPF could increase its interest income significantly by following a similar investment strategy." (p. 36) In Australia, one interesting trend has emerged: large funds have vastly outperformed smaller ones (Bateman et al. 1990).

(5) award superannuation: Australian government has introduced a new scheme in 1990 to bolster the superannuation industry further. Instead of paying higher wages to compensate for

inflation (which itself would contribute to subsequent rise in inflation rate), the increase in pay would be added to the superannuation benefits. However, as contribution to superannuation attracts a much lower tax rate, this "award superannuation" scheme is attractive to fund members with (i) no liquidity constraint; (ii) a high marginal tax rate. The long term economic implications of this scheme is not clear (see, for example, Sinha, 1988).

Political Implications

There is little question as to the growth to the economy a higher savings and investment brings. Therefore, as a vehicle of saving, the CPF and the superannuation are viewed as a "good thing". However the centralized nature of the CPF has unleashed a powerful political force. Various politicians of the ruling party have eloquently spoken about the possibility that the opposition might financially mismanage the funds and therefore put the comfortable retirement of the elderly into jeopardy. It is true that irresponsible government might squander away the capital. On the other hand the CPF fund managers may not invest in the best possible opportunity without any competition. In a decentralized setting, the firm managers would compete and ensure that funds are invested in the most profitable ventures. However, the best possible investment for an superannuantant may not be the best one from the viewpoint of social engineering. Therefore, it may not be politically the best course of action.

In Australia too, there has been a move to use the superannuation as a political tool. In 1985, several unions wanted to get into the administration of superannuation funds. Given that 60% of the labor force in Australia is unionized, it could have strengthened the position of the unions (Sampson, 1990, p. 15). The current Labor Government gave such a plan its approval. However, by 1989, it became clear that unions have not been able to make a dent in the superannuation market.

Lump sum versus annuities

In both the Australian and the Singaporean schemes, we observe a curious phenomenon: the money in the pension fund cannot be touched by the members until age 55 (or until permanent retirement). However, at retirement, the accumulated sum can be withdrawn in one lump sum. It is, as if, the government believes that a person is not responsible enough to spend judiciously before retirement, but becomes very responsible after retirement! If someone is irresponsible enough, he or she might go on a binge right after retirement, spend the lump sum, and then become a burden of the state for the rest of his or her life. This possibility brings in a major impetus for annuities. Lim et al (1986,

Chapter VIII) puts the case for annuities eloquently:

"When a wage earner retires in old age, his basic financial need is an income adequate to sustain his livelihood throughout his remaining lifetime. A lump sum drawn at a certain age is exposed to many risks of loss; even a prudent person might incur the loss of a substantial part of his fortune. Further, although death is a certain event, the time of death is uncertain. There is, therefore the additional risk of living so long that the lump sum as a means of support is exhausted during his lifetime. To cope with such problems an institution known as life annuities, has been designed to convert a lump sum into a stream of income for as long as the annuitant lives. This is essentially a pooling mechanism where, conceptually, a group of participants pay into a fund from which regular payments are subsequently made to the annuitants throughout his remaining lifetimes. In this way, each annuitant will obtain a lifelong income regardless of how long he lives. Thus, the retiree's financial need is well-matched by the income of the annuity." (p. 94)

In Australia, MINTEL report (1991) found that about 70% of the superannuitants rely on lump sum benefit only. Similarly, in Singapore, there is some anecdotal evidence that recent retirees simply deposit their lump sum benefits in the Post Office Savings Bank and live off the interest. Such a strategy does not protect the retiree from the erosion of buying power through inflation. In Singapore, it has been suggested by Lim et al. (1986, Chapter VIII) to provide a government sponsored annuity scheme with a compulsory component. The authors, in a simulation, arrive at a \$779 benefit (indexed to rise with the rate of inflation) per month for a \$100,000 payment at retirement. In Australia, comparable private annuity schemes are already available. For example, a large financial institution in Queensland has recently quoted a (life) annuity for \$100,000 that pays \$860 per month (indexed to rise with the rate of inflation).

There are many misgivings about the annuity schemes by the retirees. The most common is the fear that if a retiree buys a life annuity and dies soon afterwards, there would be no inheritance left (this fear is great among couples, where one partner dies leaving the other penniless). However, annuities are flexible instruments. It is possible to buy joint life annuities, annuities with a guaranteed payment over a fixed time period (for example, an annuity that pays for ten years regardless of the survival of the annuitant, and then keeps paying until the annuitant dies).

In Australia, to popularize annuity schemes, the government has set up additional tax incentives for annuity purchase (vis-a-vis lump sum benefits). Curiously, the Singapore Government has not taken any steps towards making annuity schemes attractive.

Conclusion

The Labor Government in Australia has brought in liberal tax treatments of superannuation. These changes have prompted some analysts to predict a huge growth in superannuation heralding in a trillion dollars to the industry. Analyzing the growth of the Central Provident Fund in Singapore, we have argue that such a phenomenal growth is unlikely in Australia unless the government forces the employers and the employees to contribute more. We explore political and economic implications of the two systems. Finally, we compare the annuity markets in the two countries and conclude that additional incentives and education are required to make annuities a success in both countries.

REFERENCES

- Bateman, Hazel. et. al. 1990. Demographics, retirement saving and superannuation policy: an Australian perspective. Discussion paper no. 241. Centre for Economic Policy Research. Australian National University, August.
- CCH Australia. 1990. 1990 Australian master tax guide. Sydney: CCH Australia.
- Datta, Gaurav & Partha Shome. 1981. Social security and household savings: Asian experience. *The Developing Economies*: 143-60.
- Feldstein, Martin. 1976. Social security and saving: the extended life-cycle theory. *American Economic Review*, 77-86.
- Insurance and Superannuation Commission. 1990. *Annual Report 1988-89*. Canberra: Australian Government Publishing Service.
- International Monetary Fund. 1989. *International Monetary Fund Yearbook*. Washington, D.C.: International Monetary Fund Publications.
- Lim, Chong Yah et. al. 1986. CPF Study group report. *Singapore Economic Review* (Special Issue), April.
- Lim, Chong Yah et. al. 1988. *Policy options for the Singapore economy*. Singapore: McGraw Hill.
- MINTEL. 1990. Report on superannuation. mimeo. Sydney.
- MINTEL. 1991. Report on annuities. mimeo. Sydney.
- Sampson, Annette. 1990. The money flood. *Australian Business*, October 24: 14-16.
- Sinha, Tapen. 1988. Life Cycle Model on Trial: An Eclectic Survey. *Quarterly Journal of Business and Economics* : 83-103.
- Wong, Kum Poh. 1986. Saving, capital inflow and capital formation. In Lim Chong Yah & Peter Lloyd, eds., *Resources and growth in Singapore*. Singapore: Oxford University Press.

APPENDIX A

July 1983

- a. unifying taxation of pre and post 1983 services.
- b. group certification procedures
- c. roll-over options

December 1986

- a. allowing deductions in tax calculations
- b. lifting of contribution levels
- c. holding of preserved components of benefits

July 1988

- a. calculation of tax on contributions
- b. determination of allowable deductions in calculation of tax on contributions.
- c. payment of tax on investment earnings
- d. monitoring of effects of dividend imputations
- e. determining cost base for tax on growth on realized property
- f. allowance for depreciation of assets owned by the superannuation plan
- g. calculation of reasonable benefits limits (RBL) and contributions
- h. monitoring excessive benefits
- i. recording deductions allowable for employee contributions

July 1990

- a. alterations in RBL calculations
- b. deductions for employee contributions to set limits
- c. highest average salary (HAS) calculations
- d. recording and monitoring of base salary for superannuation contribution
- e. improvements in early retirement benefits calculations
- f. changes in vesting requirements from July 1995
- g. recording contributions made for two years after ceasing work
- h. reporting to the Insurance and Superannuation Commission of all superannuation benefits after January 1990
- i. auditing of funds/plans
- j. choice of acceptable investments
- k. monitoring actual returns achieved by investments

current status of maximum retirement benefit

salary up to \$35,000 (indexed) : 7xHAS (for lump sum, higher for annuity)

salaries over \$35,000: reducing sliding scale

tax on fund earnings: 15%

tax on deductible contributions: 15%

tax on pre-1983 benefits: 5% of payout included
in assessable income in payment year

tax on post-1983 benefits: prior to age 55

contribution:	nil	own
balance:		20%
after age 55		
own contribution:	nil	
first \$60,000 (indexed):	nil	
balance:		15%

Indexing adjustment applies to 1 July every year.
All indexations are to be based on consumer price
index (CPI).

Additional details of recent changes in
superannuation laws are listed in CCH Australia
(1990).