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From "Stop at two!" to "Have three if you can afford it!": Singapore's Population Policy

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1. Introduction

Singapore introduced the National Family Planning and Population Programme in 1965 and established the administrative body, the Singapore Family Planning and Population Borad (SFPPB) in the following year. The family planning effort of Singapore developed and expanded rapidly during the following years. Fertility declined in the late sixties and early seventies (Leete, 1987), and in 1975 replacement fertility was attained. However, fertility rates continued to fall in the following years, and reached a historic low of 1.44 in 1986. Concerns about the adverse implications of sustained below-replacement fertility gave rise to a comprehensive review of Singapore's population programme. The SFPPB was eventually closed in 1986, and the Population Planning Unit was established to review the demographic situation and to recommend appropriate actions. A "New Population Policy" was announced in March 1987, ending the anti-natal population policy and introducing a package of policy measures to stop the declining fertility and to promote higher population growth. The official population policy now emphasised the goals of replacement-level fertility rates and the long-term stabilization of the population (Cheung, 1989).

This paper attempts to trace the causes and the trends of the first phases of Singapore's anti-natal population policies during 1966-80. A report on the population structure 1980-1988 is presented to depict the post-1980 population trends and the implications of the falling birth rate for the future. These population trends, especially the prospect of a declining population if those trends were to continue in the long run, eventually triggered a complete rethinking of the former population policies. Thus, the central elements of this new approach, and the likelihood of success of the new population policy is discussed.

2. "Stop at two!" and "Girl or boy, two is enough!": The Population Policies from 1966 to 1980

When Singapore gained independence in 1965 its population growth rate was almost 2.5 per cent. This growth rate would have resulted in a doubling of the population within about 28 years. The high population growth rate was caused by a high birth rate, a declining death rate and a continuous migration into Singapore. Recognizing the danger of excessive population pressure on a limited and inadequate physical and social infrastructure and other resources, the government launched a vigorous family planning programme.

A the inauguration of the Singapore Family Planning and Population Board (SFPPB) in 1965, the then Minister of Health made clear the government's emphasis:

> "Singapore ... is a very overcrowded little island of nearly 2 million people living in an area of just over 2 hundred square miles or a density of around 8,000 people per square mile. Family planning is therefore a matter of national importance and indeed, one of urgency for us. Our best chances for survival in an independent Singapore is stress on quality and not quantity." (quoted in: First Annual Report of the Singapore Family Planning and Population Board, 1966, Singapore 1967, p. 17).

The First Five-Year Plan (1966-70) emphasized the slogans "Plan your family" and "Plan your family small". Policy measures focused on the provision of contraceptives within the reach and financial means of everyone, the liberalisation of sterilization and abortion practices, and intensive, broad-based information and education efforts. An ambitious target of a crude birth rate of 20.0 per cent was set. This target was nearly achieved in 1970 (Table 1).

The Second Five-Year Plan (1971-75) continued and intensified efforts to avert the levelling off of the fertility decline and to "persuade" couples to have only two children, irrespective of the children's sex ("Stop at two" and "Girl or boy, two is enough"). The policy measures were designed to exert pressure on couples to limit their family size. These measures ranged from the promotion of sterilization to financial disincentives, like higher delivery fees for higher order births and reduced tax relief, and they included also lower public housing priority for parents with four or more children and lower primary school registration priority for their fourth and higher order children. Abortion was further liberalized in 1974 and promoted as the best contraceptive method for those who had "completed" their families. It became available on demand for a small fee in government hospitals. (A comprehensive discussion and assessment of Singapore's population policy is given in Saw, 1980).

The anti-natal population policy was continued during the Third Plan period (1976-80) aiming at the target of "Zero Population Growth".

Table 1: Selected Population Growth Indicators, Singapore 1965-1985

	Birth Rate*		Population Growth Rate*	Total Fertility Rate*
	Target	Actual		
1965	-	29.9	2.41	4.66
First Plan (1966-1970)	20.0	22.1	1.70	3.07
Second Plan (1971-1975)	18.0	17.7	1.26	2.07
Third Plan (1976-1980)	-	17.1	1.19	1.73
1981-1985	-	16.6	1.14	1.62

* Data refer to end of period.
Source: Singapore Family Planning and Population Board, Annual Reports

Whether due to the family planning programme or not, there occurred an almost immediate change in population growth after the inception of the anti-natal population policy in 1966. The total fertility rate (TFR) - the number of children that would be born to a woman, if she were to live to the end of her childbearing years and bear children in accordance with prevailing age-specific fertility rates - dropped from 4.66 in 1965 to the hoped for replacement level of 2.07 in 1975. However, it continued to drop and fell to 1.44 in 1986, the lowest ever in Asia. In 1987 TFR rose to 1.64 and in 1988 it reached 1.98.

Two major changes contributed to the rapid drop in TFR: a shift towards late marriage and a significant reduction in completed family size. The delay in marriage timing has been considerable. Between 1970 and 1980 the average age at first marriage increased from about 23.5 to 24.2 years, and continued to

rise to 25.6 years in 1988. Moreover, the number of single men and women increased. In 1988, 19.8 per cent of the women and 30.9 per cent of the men remained unmarried at the age of 30-34, as compared with 4 per cent and 17 per cent respectively in 1957. Together with a reduction in the completed family size which dropped from 5.5 in 1970 to 3.2 in 1985, the delay in the timing of marriage and the increase in the singlehood rate contributed to the observed slowdown in population growth.

3. Population Structure 1980 -1988

The total population of Singapore in mid-1988 was about 2.647 million (Table 2). Due to the changes in fertility ratios described above Singapore is slowly becoming an ageing society. The percentage of young persons (below 15 years) was 23.1 per cent in 1988, as compared with 27.1 per cent in 1980. The percentage of older persons (60 years or more) in contrast increased from 7.2 per cent in 1980 to 8.4 per cent in 1988. As this increase was more than compensated for by the declining percentage of young people in the population, there occured a considerable decrease in the overall dependency ratio, from 52.0 in 1980 to 45.9 in 1988.

3.1 Life Expectancy and Mortality

Life expectancy at birth - already at a high level in 1980 - continued to rise: in 1988, life expectancy reached 71.7 years for men and 76.3 years for women (Table 3). The number of deaths registered in 1988 was 13,690. The death rate remained almost stable over the period 1980 to 1988 at around 5.2 per thousand. Improvements in the age-specific mortality rates over time are most pronounced for the age groups 0-4 and 60-69. Despite the decline in the mortality rates, the increase in the number of deaths can be expected to continue with the ageing of the population and a larger number of people moving into high risk age groups in the years to come. Hence, it appears rather unlikely that the death rate will drop far below its present level.

3.2 Fertility

The total fertility rate rebounded from its historic low of 1.44 in 1986 to 1.98 in 1988 (Table 4). The replacement-fertility-rate, however, is about 2.1 which

Table 2: Key Demographic Data for Singapore, 1980 - 1988

	1980	1985	1986	1987	1988
Mid-Year Population (thousand persons)	2,414	2,558	2,586	2,613	2,647
Rate of Population Increase (per cent)	1.5	1.1	1.0	1.2	1.5
Crude Birth Rate (per 1000)	17.1	16.6	14.8	16.7	20.0
Crude Death Rate (per 1000)	5.2	5.2	5.0	5.0	5.2
Age Distribution (per cent)					
0 - 14	27.1	24.4	23.9	23.4	23.1
15 - 59	65.7	67.8	68.1	68.4	68.5
60 and over	7.2	7.8	8.0	8.2	8.4
Dependency Ratio					
Young	41.1	36.0	35.1	34.2	33.7
Old	10.9	11.5	11.7	11.9	12.2
Total	52.0	47.5	46.8	46.1	45.9
Ethnic Distribution (per cent)					
Chinese	76.9	76.4	76.3	76.1	76.0
Malays	14.6	14.9	15.0	15.1	15.2
Indians	6.4	6.4	6.4	6.5	6.5
Natural Increase	28,712	29,136	25,558	30,443	39,267
Rate of Natural Increase (per 1000)	11.9	11.4	9.9	11.7	14.8

Source: Population Planning Unit, Population Report 1988, Singapore, November 1989. Population Planning Unit, Singapore Demographic Bulletin, December 1988, Department of Statistics, Singapore 1988

Table 3: Life Expectancy and Mortality, 1980-1988

	1980	1985	1986	1987	1988
Life Expectancy at Birth (years)					
Males	68.7	70.3	70.9	71.3	71.7
Females	74.0	75.7	75.9	76.1	76.3
Number of Deaths	12,505	13,348	12,821	13,173	13,690
Death Rate (per 1000)	5.2	5.2	5.0	5.0	5.2
Age-Specific Mortality Rates (per 1000)					
0 - 4	3.1	2.2	2.1	1.9	2.1
5 - 14	0.3	0.2	-	0.3	0.2
15 - 59	2.3	2.3	-	2.1	2.1
60 - 69	27.2	24.3	-	22.2	21.7
70 and over	76.8	73.4	68.0	69.3	71.8

Source: Population Planning Unit, Ministry of Health, Population Report 1988, Singapore November 1989, and Population Report 1987, Singapore September 1988

since the mid-seventies only the Malays could more or less equal. A total of 52,957 live-births were born in 1988, about 21 per cent more than in 1987. This marked increase in the number of births in 1988 may, however, to a large extend be attributed to the fact, that 1988 was the "year of the dragon". According to Chinese belief the year of the dragon is the most auspicious in the Chinese calendar. Moreover, the two eights in the number 1988 were an additional symbol of luck and prosperity. Hence, many Chinese couples aimed at timing the birth of their child so that it was born during that year. The jump in the fertility rate for Chinese from 1.48 in 1987 to 1.88 in 1988 may be a result of that endeavour. Preliminary data for 1989 (the year of the snake, which is far less auspicious) indicate, that the number of births dropped by more than 10 per cent compared with the previous year. Thus, the fertility rates may return to their lower pre-1988 levels.

Table 4: Total Fertility Rates by Ethnic Group

	Total	Chinese	Malays	Indians
1970	3.07	3.00	3.45	3.15
1980	1.73	1.66	2.04	1.93
1985	1.62	1.47	2.10	1.93
1986	1.44	1.26	2.05	1.89
1987	1.64	1.48	2.16	1.95
1988	1.98	1.88	2.31	2.11

Source: Population Planning Unit, Ministry of Health, Population Report 1988, Singapore November 1989, and Population Report 1987, Singapore September 1988

Table 5: Live-Births by Ethnic Group, Education of Mother, and Birth Order, 1988

	1st	2nd	3rd	4th + higher	All Birth Orders
Total (number)	20522	19495	9806	2724	52957
Total (per cent)	38.8	36.8	18.5	5.1	100.0
Ethnic group					
Chinese	40.7	37.8	17.4	3.3	100.0
Malays	31.6	32.7	23.0	12.0	100.0
Indians	37.2	36.8	18.9	6.1	100.0
Education					
No qualification	30.4	35.3	24.3	9.4	100.0
Primary	38.8	37.2	18.9	4.5	100.0
Secondary	45.1	38.4	13.3	2.1	100.0
Post Secondary	44.6	38.3	13.9	2.3	100.0
Tertiary	47.4	35.3	14.8	1.8	100.0

Source: Population Planning Unit, Ministry of Health, Population Report 1988, Singapore November 1989

More than three quarters of all children born in 1988 were first or second order births indicating the tendency of Singaporean couples to limit their number of children to two (Table 5). This tendency is even stronger among Chinese with more than 80 per cent first or second order births, whereas the share of third, fourth and higher births orders among Malays is well above the average. Moreover, there is also a clear indication that mothers with higher educational qualification tend to have fewer children. Thus, for instanc, 65.7% of live births of mothers with no educational qualification were first or second order births, whereas the corresponding percentage for mothers with tertiary education was 82.7%.

Table 6: Median Age of Mothers by Birth Order and Ethnic Group

	1980	1985	1986	1987	1988
First	25.4	26.5	26.5	27.0	27.2
Chinese	25.9	27.1	-	27.7	27.8
Malays	23.2	23.7	-	24.2	24.6
Indians	24.2	25.0	-	25.7	25.8
Second	27.6	28.6	28.8	29.2	29.6
Chinese	28.0	29.2	-	29.9	30.2
Malays	25.7	26.7	-	26.9	27.0
Indians	26.7	27.5	-	27.8	28.4
Third	29.3	30.8	30.9	31.3	31.7
Fourth	30.9	32.1	32.5	32.6	32.9

Source: Population Planning Unit, Ministry of Health, Population Report 1988, Singapore November 1989, and Population Report 1987, Singapore September 1988

Furthermore, the age pattern of childbearing continued to show a delaying trend. The median age of mothers at first birth increased from 25.4 years in 1980 to 27.2 in 1988 (Table 6). The respective increases for the higher (second to fourth) order births were even more distinct. Another interesting charac-

teristic are the differences according to ethnic group[1]. The median age of Chinese mothers is not only well above the median age of Malay and Indian mothers. They also tended to increase the delay in childbearing between 1980 and 1988 more than the two other ethnic groups.

3.3 Marriage

In 1988 a total of 24.853 marriages were contracted (Table 7), an increase of 6.2 per cent over 1987, and 23.8 per cent more than in 1986. The mean age of brides at first marriage continued its upward trend, reaching 25.6 on average and above average age for Chinese brides and below average age for Malay and Indian brides (Table 8). Across ethnic groups the trend towards later marriage persists with an almost identical change in behaviour irrespective of ethnic group.

Table 7: Number of Marriages by Ethnic Group of Couple

	Total	Chinese	Malays	Indians
1980	23721	17758	3192	1383
1984	24940	18255	3496	1491
1985	23466	16747	3576	2528
1986	20075	13824	3415	1316
1987	23404	16904	3545	1364
1988	24853	17861	3787	1373

Source: Population Planning Unit, Ministry of Health, Population Report 1988, Singapore November 1988

As discussed above the percentage of the unmarried in the population is rather high and increased over the last years. Moreover, survey data show that

1 In Table 6 the brakdown according to ethnic groups is only given for first and second order births. The pattern for third and fourth order births is similar to the one shown for first and second order births.

the singlehood rate among the female population generally increases with the educational level (Table 9). Furthermore, among the major ethnic groups the Chinese continued to have the highest singlehood rates across all age groups.

Table 8: Mean Age at First Marriage of Brides by Ethnic Group

	Total	Chinese	Malays	Indians
1980	24.2	24.5	23.0	23.9
1985	24.9	25.3	23.4	24.4
1986	25.1	25.5	23.8	24.6
1987	25.5	25.8	24.0	24.9
1988	25.6	25.8	24.3	25.2

Source: Population Planning Unit, Ministry of Health, Population Report 1988, Singapore November 1988

4. Implications of the Changing Population Structure

Singapore's population structure changed over the last years in a number of aspects and due to various factors:

- population growth in Singapore is the lowest in Asia;
- Singapore is gradually becoming an ageing society;
- life expectancy at birth is high and reaches industrialized countries' levels;
- there is a trend towards later marriage;
- delaying marriage implies that also motherhood is postponed;
- hence, a woman's childbearing years are reduced;
- couples increasingly tend to limit their number of children to one or two;
- the share of people remaining unmarried increases;
- as a result, fertility rates declined considerably and reached a historic low in 1986; the fertility rate rebounded in 1988, but can be expected to drop to the pre-1988 low levels in the future.

These general characteristics may be considered "normal" features for countries approaching industrialized country status. The prospect of a de-

Table 9: Per cent Single among Resident Females and Males by Age Group, Ethnic Group, and Educational Qualification, 1988

	20-24	25-29	30-34	35-39	40-44
Females, total	82.3	41.0	19.8	12.0	7.1
Ethnic Group					
Chinese	86.4	43.9	20.8	12.6	7.3
Malays	68.2	17.8	12.9	9.3	5.8
Indians	74.8	39.0	21.3	10.7	4.2
Education					
No qualification	70.9	27.6	12.7	6.0	4.1
Primary	65.9	28.7	14.4	9.8	6.2
Secondary	85.1	45.1	24.4	17.6	13.1
Post Secondary	95.7	56.7	29.0	20.5	14.9
Tertiary	95.6	60.9	37.5	21.5	11.9
Males, total	95.2	65.8	30.9	13.8	7.6
Ethnic group					
Chinese	96.5	70.3	33.7	14.7	7.8
Malays	89.4	47.4	16.1	8.6	5.6
Indians	95.2	60.5	24.5	8.5	7.3
Education					
No qualification	92.6	66.9	39.6	20.8	11.6
Primary	91.7	60.2	29.3	13.0	7.1
Secondary	96.2	65.7	30.5	12.7	6.2
Post Secondary	98.9	74.9	28.6	10.1	4.2
Tertiary	97.6	73.1	29.2	11.0	4.8

Source: Population Planning Unit, Ministry of Health, Population Report 1988, Singapore November 1989

clining population has, however, contributed to a re-evaluation of the population policy pursued so far. Most importantly, however, the distinct differences in reproductive behaviour between ethnic groups and with regard to educational qualification have caused considerable concern among policy makers in Singapore.

If the present population trends were to continue in the future, the population would age, dependency ratios would increase, and the number of population would eventually decrease. The government is afraid that there will be not enough young men to meet the needs of the military forces to defend the country. The government is also concerned that the greying and shrinking of the population may have negative economic repercussions as the size and structure of the labour force would change. It is feared that economic growth will be negatively affected through a shortage of young labourers. The ageing of the workforce is said to hamper the efforts to remain competitive. Concomitant with a higher dependency ratio, the tax burden of a shrinking pool of economically active people will increase and the social welfare burden will overproportionately accelerate with an ageing population.

Apart from the looming general decline in the number of population the government, however, appears to be most worried by the distinct differences in the birth rates among the ethnic groups and by the tendency of higher educated mothers to have fewer children. The Chinese comprise (in 1988) 76.0 per cent of Singapore's population of about 2.65 million. However, they have been replacing themselves at the rate of only 73 per cent between 1986 to 1988. Malays, who account for 15.2 per cent of the population (in 1988), reproduced at a rate of 103 per cent; Indians, 6.5 per cent of the population, at a rate of 94 per cent. These differences, if they were to continue in the future, will in the long run bring about a considerable change in the racial composition of the population. Only in the rather short time-span of 1980 to 1988 the share of the Chinese population dropped by almost a percentage point, whereas the share of the Malays increased by 0.6 percentage points. The present population shares of the three ethnic groups are apparently recognized by the government as en equilibrium situation. A marked deviation from this equilibrium is obviously perceived as a threat to the security and the stability of the country. The government further emphasizes the argument that the Chinese should play their "full and fair part in having children" in order to avoid the burden of caring for the aged (majority of them is Chinese) in the future falling on the State and the non-Chinese groups.

The distinctly lower fertility rates of higher qualified women is similarly worrying the Singapore government. It takes the view that young men and women of higher educational levels should not remain single at the current

high percentage but should marry. And they should not restrict their number of children to two as presently most of the mothers with secondary and above education tend to do. If this trend was to continue, it is argued in a rather genetic approach, Singapore would be short of the qualified people it will need in the years ahead. Thus, the reproductive behaviour of the higher qualified women and men is seen as posing a threat to the long term economic success and stability of the country.

These perceived threats and the apparent belief in genetics had caused the government to re-evaluate the previous population policy and to design and implement a new policy. This new population policy cannot be said to imply a complete swing from the previous anti-natal policy to a now pro-natal one. Rather the new policy is a combination of general incentives to foster population growth with special incentives highly discriminatory, primarily with regard to educational levels of mothers. Therefore, after its announcement, the new policy has triggered off much controversy; firstly, because of the overall change in policy, secondly, the new policy was seen as being highly unfair.

5. "Have three, or more if you can afford it!" The New Population Policy

The government's announcement of the new policy "Have three, or more if you can afford it" in March 1987 generated an intense public discussion. The central element of the new policy is affordability, it is supposedly not linked to parents' educational attainment and racial preference. The thrust of the new policy is to change the two-child family norm inculcated among the people since 1966. The objective of the new policy was that the Singaporean population would reach replacement level by the year 1995. Since 1987 a number of incentives have been introduced to implement this policy change and to achieve its objectives.

Normal Child Relief

The Normal Child Relief is Singapore-Dollar 1,500 each for the first to the third child For the fourth and fifth child born before 1.8.1973 the amount is S$ 300. For the fourth child born after 31.12.1987 it is S$ 1,500.

Enhanced Child Relief

Working mothers with at least three "O" level passes or equivalent qualification are eligible for enhanced child relief. It comprises for:

- the first child: S$ 1,500 plus 5 per cent of the mother's earned income;
- the second child: S$ 1,500 plus 10 per cent of the mother's earned income (15 per cent for children below 12 years);
- the third child: S$ 1,500 plus 15 (20) per cent of the mother's earned income;
- the fourth child (born after 31.12.1986): S$ 1,500 plus 15 (25) per cent of the mother's earned income.

The maximum relief for each child above 12 years is limited to S$ 10,000 and to S$ 15,000 for children below 12 years.

Special 5-year Tax Rebate

A special tax rebate of S$ 20,000 is granted to parents for the birth of their third child (born after 31.12.1986) or their fourth child (born after 31.12.1987). The rebate is to be used within 5 years and to be deducted against the income tax payable by either or both parents. In addition, a rebate equal to 15 per cent of the wife's income (to be offset only against the wife's income tax) is conceded in the year of birth.

School Registration

The government abolished all disincentives against the third child in school registration. The third child enjoys the same priority as the first or second child from smaller families. In addition, with effect from registration for admission into 1988 Pre-primary and Primary 1 classes, higher priority was given to children from three-child families, should the number of applications exceed the number of vacancies.

Housing Allocation Priority

Families who want to upgrade their Housing Development Board (HDB) flats after the birth of their third child are given priority (their applications are backdated by three years). Normally allocation is on a first-come-first-served basis. These families will also be allowed to sell their flats on the open market, and not back to the HDB, even if they have stayed in it for less than five years or even if it is their second or third HDB flat.

Subsidy for Child-care Centre Fees

All children enrolled in a government-approved child-care centre receive a S$ 100 subsidy to the child-care centre fees.

Accouchement Fees

The delivery and hospital expenses for the fourth child can be offset against the parents' earned income (maximum S$ 3,000).

Special Leave Schemes for Female Married Civil Servants

The one-year no-pay child-care leave for married female civil servants is extended to four years; part-time employment is allowed; moreover, mothers with children below six years enjoy full-pay unrecorded leave of up to 15 days a year to look after their ill children. The private sector is encouraged to establish similar schemes.

Abortion and Sterilization Discouraged

Due to the liberalization of abortion in 1973, the number of abortions has increased steadily since then. In 1988 about 23,000 abortions were reported as compared with about 53,000 births. Thus, around 30 per cent of all pregnancies were aborted. To discourage abortions, compulsory abortion counselling has been introduecd. However, abortion is still available at government hospitals at a token fee of five Singapore-Dollars. Women with fewer than three children seeking sterilization are also given compulsory counselling.

Matchmaking

In 1984 the Social Development Unit (SDU) has been established to create opportunities of interaction among male and female graduates. In addition to organising various activities, the unit also offers a computerized matchmaking service. The importance of this matchmaking programme is acknowledged and the programmes have been extended to singles of lower educational levels (A- and O-level). The SDU graduate programmes had a (cumulative) membership of about 7,000 between 1984 and 1988 and claims to have "arranged" 516 marriages during that period. The A-level programmes report 102 marriages arranged in 1988 and the O-level programmes 186 marriages between 1986 to 1988.

6. An Evaluation

Considering these incentives the main question arises, whether they can be effective and bring about the hoped for changes in the population structure. Moreover, the distributional fairness of the various incentives and the underlying biogenetic assumptions may be questionable.

The effectiveness of measures to influence the size of the population, whether the objective is to reduce the population growth, as it would be the case in many developing countries, or the objective is to increase population growth, essentially depends upon the determinants of population growth. Singapore's recent population policy apparently is based upon the assumption that the key determinant influencing the decision of parents as to the number of children they want to have is the cost of raising the children. Yet, cost considerations, although pertinent, may not address the central concerns of parents in arriving at the desired family size. Financial incentives may not matter much in an affluent society, as the examples of Western European countries show. In an urban, developed society, the economic contributions of children (e.g. as cheap labourers and/or support for the old age of parents) lose importance, whereas psychological benefits and probably also costs gain significance (see World Bank 1984, Chap. 6). Consequently, the "quantity" is not as important as the "quality" of children (Becker/Lewis 1981; Blake 1983). The parents' desire for progeny might be satisfied by one or two children. The motivation to have three or more children in a modern urbanised society may have to come from a more profound appreciation of the psychological value of a large family. It is, therefore, questionable that the number of children parents want to have can be increased by financial incentives.

Apart from the questionable effectiveness of financial incentives, certain aspects of the present population policies are also discriminatory and contradictory.

Already in 1983, Singapore's Prime Minister expressed his concern about the fact that Singapore's educated elite was having relatively fewer children than the lower educated people. The government then offered incentives to encourage poor, uneducated mothers to get sterilized after two children. In 1986 it rewarded graduate mothers for having a third child by giving their offspring preference in top primary schools, a policy that was scrapped due to adverse public reactions. The Social Development Unit is set up mainly for the educated Singaporeans. Even today, the notion "affordability" implies that those who can afford to have bigger families are the higher income earners who are also likely to be the better educated ones. The linkage between affordability, higher income and educational attainment is an indication of the discriminatory implications of the present population policy.

Clearly the Enhanced Child Relief is discriminatory according to the mother's educational qualification as only mothers with O-level or equivalent qualification qualify for this benefit. Other incentives imply a more indirect discrimination. Thus, the absolute benefit from the Special Tax Rebate is higher for couples in the higher income brackets than the benefit received by couples in the lower income groups. If the objective of the incentive was to offset costs to bring up children (affordability), the absolute benefit should be more or less similar for all parents. Yet, the Special Tax Rebate is favouring the higher income groups but discriminating against the lower income groups. This discriminatory effect against the lower income groups may be intended, however, as parents in the higher income brackets are likely to be also the higher educated ones, whereas the less educated or uneducated ones are likely to be earning lower incomes and thus paying less income tax.

If the incentive scheme does motivate married couples to have more babies, then it is the higher educated/higher income-couples who are most likely to have bigger families. It might well be that this also complies with the government's underlying objective and the government's genetic approach.

The removal of the disincentives against the School Registration of the third child is definitely appreciated by most parents. Naturally, they are very anxious to enroll their children with the best and most prestigious schools. However, parents might also be offended by the sudden policy-change and become suspicious of the government's future policy.

Taking into account the high direct and indirect costs of child-upbringing and the increasing property prices, it is doubtful whether the Housing Allocation Priority scheme will be effective. Young couples in their early years of

marriage can hardly be expected to have more children and at the same time buy bigger houses as this would only add to their financial burden. On the contrary, young couples might rather consider this to be a trade-off decision. The recently observed trend of young families setting up their homes in the newly developed housing estates in the outer regions of Singapore indicates the importance of economic considerations in their decision-making.

More and better access to Childcare Centres would ease the parents' burden of taking care of their children. It could also encourage married mothers to join the labour force. Whether this will as well encourage them to have more children remains to be seen. The increase in the foreign maids levy apparently conflicts with these objectives.

The government has allocated S$ 1.5 million to the Health Ministry to invest in publicity campaigns and advertisements in order to promote family life and marriage. It is not certain, however, that such a campaign will achieve its mission. Moral suasion and/or public pressure upon nonconformists could well prove contra-productive as the target group may will feel offended by this campaign. More productive ways of spending this amount of money could be envisaged in order to overcome Singapore's population problem. For instance, to upgrade and enhance the qualification and the skills of the labour force through extensive training programmes, and to promote the further improvement in productivity could contribute to ease the supposed present and future labour shortage problem and the problem of impending higher dependency ratios.

The emphasis being given to population policy issues and the recent 180-degree turn in Singapore's population policy might as well have indirect negative repercussions. The issue of family size and upbringing of children could increasingly be regarded as a responsibility of the government. Parents might progressively ask for government assistance by way of tax reduction, subsidy, longer maternity leave. Moreover, parents who have responded to the earlier call for family planning and undergone sterilization will naturally be now very unhappy. Those, however, who have more than two children will also complain about the "unfavourable" treatment they received in the past because of having "too many" children. Uncertainty, suspicion and distrust can be expected to rise and diminish the effectiveness of the policy.

In general, it might prove extremely difficult if not unfeasible to induce a "desired" rate of population growth through specific policy measures. This appears to be true when a lower than the actual rate of population growth is aimed for, but even more so if a higher growth rate is the target. Financial and other incentives may reduce the parents' burden of bringing up their children and can, therefore, be perceived as a matter of distributional justice.

But incentives will have only a very minor effect upon the number of children a couple wishes to have. An incentive-oriented population policy obviously assumes that the parent's decision is based upon an economic rationale of costs and benefits.

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