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Indonesia

Restructuring of the social security system (Part 2)

ILO PROJECT INS/00/M04/NET

Pension reform in Indonesia

International Labour Organization
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1. Executive summary

1.1. This report examines the strengths and weaknesses of the JHT provident fund operated by PT Jaminan Sosial Tenaga Kerja (Jamsostek), a public limited liability company with the Indonesian Finance Ministry as the sole shareholder. The provident fund is a compulsory savings scheme financed, in accordance with defined contribution principles, by earnings-related contributions from insured persons and their employers together with an income from investments. Details of the scheme, that aims to provide a lump sum on retirement and other benefits for workers in Indonesian enterprises with 10 or more employees or a monthly wage bill of more than Rp.1 million, are given in Annex 1.

1.2. The scheme falls outside the provisions of the ILO Social Security (Minimum Standards) Convention No.102 of 1952, in particular because it does not provide benefit in the form of a periodic and predictable payment throughout the period of the contingency and does not replace, to the prescribed extent, the loss of income on retirement. Within the framework of the ILO Project: “Restructuring of the Indonesian Social Security System” INS/00/M04/NET, this report examines the feasibility of converting (partially or wholly) the provident fund into a pension scheme that would provide an adequate income on retirement.

1.3. Jamsostek has a network of well-appointed local branch offices and staff who do their best to give their customers a good service. But it lacks the necessary information technology to operate a truly national social insurance scheme and its branch organization and functions will require reform if it is to increase the level of contribution compliance above the current very low level of around 40 per cent. Given the Indonesian government’s decision to change the status of Jamsostek to that of a trust fund with a tripartite board acting as trustees for the funds of contributors, and with responsibility for operating a reformed social insurance scheme, there are good prospects that the organization will be able to gain the full confidence of its customers and meet the challenge of introducing and implementing a reformed social insurance scheme.

1.4. A number of options for replacing or partially replacing the lump sum provisions of the JHT scheme are examined, ranging from the most simple – activating the provisions already existing for payment of accumulated individual balances as periodic pensions. Alternatives of introducing a notional defined contribution scheme or a mandatory defined contribution scheme are examined.

1.5. Parallel pension systems – with lower paid workers contributing to a separate scheme or with a minimal and mandatory defined benefit scheme being introduced for all Indonesian workers with a mandatory defined-contribution scheme for those earning well above the national average minimum wage – are explored.

1.6. The option recommended for Indonesia is to convert the present Jamsostek scheme into a contributory public defined-benefit scheme. Such a scheme has many advantages provided it is sustainable in the longer term. The Report illustrates the main elements of such a scheme and a possible pension formula for Indonesia.

1.7. Longer term strategies for separate pension provisions for the informal sector and the self-employed are examined and consideration given to the scope of other pension schemes and their relationship with existing schemes including those for public servants and the private and employer based schemes.

1.8. The report recognizes that any proposal for change in the present systems may call for administrative changes some of which are examined together with the implications for the existing institutions.

2. Introduction

2.1. The International Labour Office has been involved in the development of social security in Indonesia for more than 20 years. This included (in 1988) a technical cooperation project during which a pension scheme for private sector workers was designed and costed. More recent interventions have focussed on general weaknesses in the national social security system. The financial crisis again exposed these weaknesses and following a further analysis in early 1999 and an increased level of public criticism against Jamsostek, the ILO provided resources for short-term technical assistance between September and December 1999. The need to restructure the social security system and, in particular, to address the weaknesses of Jamsostek were analysed by a National Steering Committee, established by the Ministry of Manpower in September 1999 to work with ILO specialists. This culminated in a National Workshop on the Restructuring of Social Security held in Jakarta on 16/17 November 1999.

2.2. The report produced at the end of this technical assistance input (ILO/TAP/ Indonesia/R.20) set out recommendations for follow-up and this present project: “Restructuring of the Social Security System” (INS/00/M04/NET) was implemented as a direct result of these recommendations. The objectives of the project are the establishment of a new institutional structure for the national social security scheme and the development of a national strategic plan for the restructuring of the social security system.

2.3. The present legal status of Jamsostek under Law 3 of 1992 as a limited liability company required to make profits and pay taxes is considered to be inappropriate for a system based on State responsibility and constitutional rights. The strategy of the project has been to reconstitute Jamsostek as a public social security institution that will hold its members’ contributions in trust against future benefit entitlement under the supervision of a tripartite Board. Alongside this, the project is to focus on the reform of the institution to ensure that it is able to undertake the role envisaged as the core of the social security system in Indonesia. This will entail review of the organizational and administrative system aiming at improved accountability and efficiency and improved service to the public.

2.4. On the basis that whatever improvements are made in governance and operating efficiency would still leave the programme weaknesses, the project has also studied options for improvements in the benefit programme including the feasibility of replacement and conversion of the existing provident fund scheme (JHT) by a social insurance pension scheme – the subject of this present Report. The Report takes account of previous studies and actuarial valuations which demonstrated that a suitable scheme could be introduced for the existing contribution rate for the provident fund and death insurance of 6 per cent.

2.5. The Director-General of the ILO appointed Mr. David Gent, an international expert on Pensions Policy, to undertake the study and to support the Chief Technical Adviser, Mr Michael Smith, who was in Indonesia throughout the period of the project. Mr. Gent was in Indonesia for two periods – 28th September to 9th November 2001 and 25th January to 15th February 2002. In addition to meetings with officials and interested individuals and groups in Jakarta and Bali, Mr. Gent presented the issues involved with the study proposals at workshops in Jakarta, Medan and Bandung which enabled wider discussion with employer and employee representatives and to discuss with workers in the informal sector their concerns and hopes regarding the extension of social insurance cover. Annex 3 gives a list of the meetings held and those planned, which could not be held for various reasons.

2.6. This Report covers the Options for Pensions Reform in Indonesia. The terms of reference for this pensions study are at Annex 2. Further feasibility Reports relate to: Unemployment Insurance; Social Assistance; Improvements to Occupational Injuries and Death Benefits; and Maternity Benefit.

2.7. The Director-General of the ILO would like to thank Minister Jacob Nuwa Wea of the Department of Manpower and Transmigration and his staff; the President Director of PT Jamsostek and officials in the Head Office, Regional Offices and Branch Offices, Professor Dr Yaumil C. Agoes Achir, Chair of the Presidential Task Force on Social Security Reform and Members of the National Project Steering Committee for their invaluable support and assistance.

3. Definitions

In order to aid understanding of this report the following terms are defined and explained.

3.1. Social insurance

3.1.1. Social insurance is based on the principle of the pooling of risk. Thus everyone covered by a social insurance scheme makes a contribution to a common fund. When a contributor meets the prescribed conditions for benefits - his or her needs (or at least part of them) are met from the insurance fund. Social Insurance schemes may differ from one another but their principle elements are that:

- they are financed by contributions normally shared between workers and employers, (often with some State participation);
- they require compulsory Participation;
- the contributions are paid into special funds out of which benefits are paid.

3.1.2. In social insurance schemes:

- surplus (reserve) funds are invested to earn further income – returned to members through improved benefits;
- benefits are guaranteed on the basis of the qualifying conditions set out in the legislation, with regard to the payment of contributions and without means testing (i.e. taking income and wealth into account);
- contributions and benefit are often proportionate to earnings.

3.2. Social assistance

3.2.1. In social assistance schemes, benefits are provided as a legal right when the prescribed conditions are met. Generally speaking, means are taken into account when arriving at the assessment of the benefit to be paid.

3.3. 3-Tier social protection system

3.3.1. Many social protection systems consist of three tiers, or layers of protection:

- *1st Tier – a social safety net* providing basic protection such as primary health care and subsistence level income security (which would ordinarily be provided by the State, financed from taxes). 1st Tier Pension Schemes are, therefore, normally non-contributory. To the extent that the option of a 1st tier pension has been considered under the present project, it will be mentioned in the Feasibility Study on Social Assistance.
- *2nd Tier – Social insurance schemes financed by contributions* from employers and workers – providing income maintenance benefits during periods of interruption of employment and a broader range of health care with some redistribution of income within and between generations. The pension scheme options discussed in this report are 2nd Tier Pension Schemes (except where stated otherwise).

- *3rd Tier – Supplementary (voluntary) private provision* by individuals, employers or occupational schemes for pension savings and health insurance.

3.4. Defined benefit schemes

3.4.1. In defined benefit schemes the rules or the insurance contract (in a public scheme, the provisions of the legislation) clearly define the benefit rights of members (in line with a range of criteria: replacement rate, reference earnings, duration, etc.) while leaving the contribution rate and the financial system to be set by assessment.

3.4.2. Members are thus guaranteed, and can predict entitlement to a benefit representing a certain rate of replacement of their former earnings. Responsibility for the scheme's solvency is borne by those who finance it, usually employers and workers, who may be required to supplement their contributions or to raise the book reserves which provide for the benefit payments. Sometimes governments contribute directly to the Fund or meet part of the administration costs and in the case of a public scheme established by law, government stands behind the promises made by the legislation and is the ultimate guarantor.

3.5. Defined contribution schemes

3.5.1. In defined contribution schemes, only the contribution rates and bases of calculation are determined in advance. The benefit is a direct product of the contributions paid together with the return on their investment. Consequently, the financial risk is borne by the employees. Benefit levels can vary significantly, depending on how the investments perform. There are no guarantees in this regard because the employer makes no commitment as to the value of the pensions. On the other hand, the cost of the scheme is easier to control.

3.6. Social security financing

3.6.1 Pay-As-You-Go (PAYG)

3.6.1.1. Under PAYG systems of financing, no funds are set aside in advance (except for a small contingency reserve) and benefits plus administrative costs are paid from current contributions. Each worker and employer pays a monthly contribution into a common fund from which pensions are paid to current pensioners who have contributed during the years when they were working. Thus current contributors pay for the benefits of current pensioners and income is transferred vertically between generations. Risks are shared under a PAYG scheme. For example if an unmarried worker dies say, one year after retirement, his pension dies with him If his twin brother, also single, lives until he is 95 years old, he will have been paid a monthly pension for the whole of his life. In PAYG, funding for short-term benefits (e.g. maternity benefit or unemployment benefit) is again by current contributions representing a horizontal income transfer (i.e. within the same generation).

3.6.1.2. Given the pattern of rising annual expenditures in social insurance schemes, contribution rates (as a percentage of insured earnings) tend to be low in the early years of a scheme but increase annually for many years thereafter.

3.6.2. Advance funding

3.6.2.1. With advance funding systems the annual contribution and investment income will exceed annual outgo on benefits and administrative costs in the early years allowing reserves to be built up that are available for investment. The return on investments is then used to supplement contribution income when the annual disbursement eventually exceeds the annual contributions. This build-up of reserves during the early years delays the need to increase contribution rates. But the contribution rate should not exceed the capacities of workers, employers and the economy to support it; the reserves generated should not exceed the capacity of the country to absorb the investments; and contribution rates should remain relatively stable for extended periods of time – with only gradual increases.

3.7. International labour standards in relation to old-age, invalidity and survivors' benefits

Two up-to date ILO Conventions cover old-age, invalidity and survivors' benefits: The Social Security (Minimum Standards) Convention, 1952, No. 102 and the Invalidity, Old-age and Survivors' Benefits Convention, 1967, No. 128. Convention No. 102 fixes worldwide agreed minimum standards of social security whereas Convention No.128 sets higher standards with regard to the protection in case of old-age, invalidity or death of the breadwinner. Indonesia has not yet ratified either Convention No. 102 or Convention No. 128. However, Convention No. 102 contains basic requirements and general principles and serves therefore as a guideline which should be applied for all social security systems throughout the world. A short description of the requirements of the Convention with regard to old-age, invalidity and survivors' benefits and is set out below.

A) Old-age benefit

Convention No. 102 stipulates that the contingency shall cover survival beyond a prescribed age which shall be not more than 65 years; exceptionally it may be set at a higher age. Furthermore, the Convention does not allow as condition for the entitlement to the benefit retirement from work. However, it is authorized to suspend or reduce the benefit if the person concerned is engaged in any prescribed gainful activity, or if the earnings or means of the person concerned exceed a prescribed amount.

The Convention prescribes that, in case of a contributory old-age benefit scheme, at least 50 per cent of all employees in the country shall be protected, or classes of the economically active population, which shall not be less than 20 per cent of all residents. In case of a universal old-age benefit scheme, all residents whose means during the contingency do not exceed prescribed limits, shall be protected.

The Convention prescribes that in case of an earnings related old-age benefit scheme, the benefit shall not be less than 40 per cent of the previous earnings of the protected person after 30 years of contributions or employment, or in case of a flat-rate old-age benefit scheme, the old-age benefit has to amount after 30 years of contributions or employment to at least 40 per cent of the wage of an unskilled male labourer of the country concerned. In case of a universal scheme, an old-age benefit of 40 per cent has to be granted to all protected persons after 20 years of residence. In addition, the Convention stipulates that a reduced old-age benefit has to be paid after 15 years of contributions or employment.

The benefit has to take the form of a periodical payment (pension); therefore, lump sum benefits would not apply the provisions of the Convention. This shall be paid throughout the contingency, which means until the death of the beneficiary.

B) Invalidity benefit

The contingency covered has to include the inability to engage in any gainful activity, either permanent or persists after the exhaustion of sickness benefit.

The Convention prescribes that, in case of a contributory invalidity benefit scheme, at least 50 per cent of all employees in the country shall be protected, or classes of the economically active population, which shall not be less than 20 per cent of all residents. In case of a universal invalidity benefit scheme, all residents whose means during the contingency do not exceed prescribed limits, shall be protected.

In case of an earnings related invalidity benefit scheme, the benefit shall not be less than 40 per cent of the previous earnings of the protected person after 15 years of contributions or employment, or in case of a flat-rate scheme, the invalidity benefit has to amount after 15 years of contributions or employment to at least 40 per cent of the wage of an unskilled male labourer of the country concerned. In case of a universal scheme, an invalidity benefit of 40 per cent has to be granted to all protected persons after10 years of residence. In addition, the Convention stipulates that a reduced invalidity benefit has to be paid after 5 years of contributions or employment.

The benefit has to take the form of a periodical payment, which has to be granted throughout the contingency or until an old-age benefit at least at the same level becomes payable.

C) Survivors= benefit

The contingency relates to the loss of support suffered by the widow or child[1] as a result of the death of the breadwinner. However, in case of a widow, the benefit may be made conditional on her being presumed to be incapable of self-support. In addition, the benefit may be suspended if the widow is engaged in any gainful activity. In case of a contributory benefit it may also be reduced where the earnings of the widow reach a prescribed amount, and in case of a non-contributory benefit, the benefit may be reduced where the earnings and other means together exceed a prescribed amount. In case of a childless widow, the entitlement to a survivors= benefit may be also made conditional on a minimum period of marriage.

With regard to the personal coverage, the protected persons shall include either the wives and children of employees who have to be at least 50 per cent of all employees, or the wives an children of economically active persons who have to constitute not less then 20 per cent of all residents, or all resident widows and children who have lost their breadwinner and whose means during the contingency do not exceed prescribed limits.

In case of an earnings related survivors= benefit scheme, the benefit shall not be less than 40 per cent of the previous earnings of the deceased breadwinner after 15 years of contributions or employment, or in case of a flat-rate scheme, the survivors= benefit has to amount after 15 years of contributions or employment of the deceased breadwinner to at least 40 per cent of the wage of an unskilled male labourer of the country concerned. In case of a universal scheme, a survivors= benefit of 40 per cent has to be granted to all protected widows and children after10 years of residence of the deceased breadwinner. If the deceased breadwinner did not complete the qualifying period of 15 years of contribution or employment or 10 years of residence, a reduced benefit has to be paid to the protected persons at least after five years of contributions or employment.

The benefit has to take the form of a periodical payment and has to be granted throughout the contingency.

[1]Child means a child under school-leaving age or under 15 years of age.

4. Jamsostek JHT scheme and the need for change

4.1. PT Jamsostek has the legal status of a State-owned limited liability company *(Persero)* and declares a profit in its annual report. This "profit" is the surplus contributions and investment income after benefits have been paid to qualified contributors. Profits are taxed with the result that the Finance Ministry takes a proportion of the contributions paid each year by contributors. The income from the investment of contributions has been low for some years but more recently has improved due to improved fund management within Jamsostek.

4.2. When contributors retire at age 55 they receive a lump sum representing their total contributions plus investment income. Jamsostek has no contact with pensioners after age 55 and has no reliable information on how they manage after receiving their lump sum. Some are thought to invest the whole sum in a small business within the informal sector but as the average pay-out is Rp. 2.1 m (around US $200), or 8.5 times the average monthly minimum wage, any person using the sum as a cash pension would extinguish it within a year. Such sums do not represent adequate provision for old age. However it was reported by employers that many workers continue to work after age 55 in the informal sector.

4.3. A contributor who suffers a work injury can receive a reducing percentage of former earnings under the JKK scheme while there are prospects of a return to the employment field but after about one year will receive a final lump sum payment. Someone who is permanently disabled following a work accident will receive an immediate lump sum. Disability pensions are not paid but a recent Presidential decree provided for additional monthly payments of Rp. 50,000 for a period of two years to those who are permanently disabled following a work accident and unable to return to work. For administrative convenience these additional monthly payments have now been converted into a single lump sum. The methods used to assess the degree of disability arising from work accident work satisfactorily with a local medical specialist attached to each Jamsostek branch is paid a fee of about Rp. 25,000 for each examination.

4.4. There is little doubt that Jamsostek members are not properly protected against the contingencies of permanent invalidity and death or throughout old age; or that they have similar needs for an adequate system of long-term income maintenance as public servants and other groups in the working population who are already entitled to periodic pensions following retirement. The Jamsostek JHT scheme of lump sum payments suffers from fundamental defects as a method of replacing earnings from employment. Its effectiveness has been further eroded by the provision for early withdrawal of lump sums because of unemployment.

4.5. From the views expressed by trade union representatives and workers in the formal labour market that Indonesian workers would welcome the introduction of an improved social insurance scheme that covered them for the normal risks and offered them a monthly pension after retirement. When the appropriate level of contributions was discussed the views were mixed with some trade union representatives of the opinion that if wages were raised the workers would be prepared to match the contributions paid by the employer while others felt that until the general level of wages was higher, workers would not be prepared to contribute more than the current 2 per cent of gross wages. It was said by some employer representatives that while the basic wage in the formal sector was based on the provincial minimum wage this represented only about 35 per cent of the gross take home pay as most employers operated significant incentive payment schemes.

4.6. Workers in the informal sector felt that contributions should be kept to the absolute minimum while their wages were so near the minimum wage set by each province. (See Annex 4) It was clear that a scheme that would be found acceptable by the formal sector might well not find favour amongst workers in the informal sector. Thus it may be necessary, when it becomes possible to extend social security coverage to the informal sector, to design separate (if complementary) schemes for the formal and informal sectors of the workforce.

4.7. There are a number of options for changing the present system of lump sum benefits to provide periodic pensions following the attainment of retirement age. These are discussed in the following sections.

5. Option of purchasing annuities

5.1. Article 24 of Government Regulation No.14 of 1993 provides for the payment of periodic pensions, albeit for a maximum period of five years. Jamsostek does not, however have the capacity to pay periodic benefits. Also, although there is a system to credit individual member accounts with an annual rate of interest, this is on an increasing balance. There appears to be no provision for crediting interest on a reducing balance, although this should not be difficult to design.

5.2. Thus a simple option to convert the JHT provident fund to a pension scheme might be to activate Article 24 (2)(b) (but with deletion of the 5-year limit). At age 55 (or other 'retirement' age) an actuarial calculation could be made to divide the accumulated balance plus an estimated addition of interest post retirement by an assumed life expectancy beyond age 55 to give a monthly lump sum. The reducing balance would attract annual interest enabling either the pension to continue to be paid longer than 20 years, for a higher pension to be earned, or for a combination of the two.

5.3. For the purposes of illustration – an accumulated lump sum of Rp. 10 million at age 55 might, if spread over 20 years, give rise to a monthly pension of Rp. 41,700 (Rp. 500,000 a year). If the lump sum at the end of the first year (at age 56) is reduced by Rp. 500,000 on account of the monthly pension paid, there would be 9.5m left that would be accruing interest. If this were to attract interest at 5 per cent p.a., to add to the lump sum there would be an accumulated balance of Rp. 9.975m at the end of that year. Reducing the lump sum each year by Rp. 500,000 but adding on the interest on the balance at 5 per cent would give balances of Rp. 9.949m at age 57; Rp. 9.921m at age 58; Rp. 9.892m at age 59; and Rp. 9.861m at age 60 and so on. The lump sum reduces much less quickly in the early years following retirement and accelerates with age but at age 75 (after 20 years) it may be as much as Rp. 8.737m. But this is of course at 2002 prices and not corrected for inflation or indexation.

5.4. This option might be the simplest means of replacing the lump sum by a periodic. The advantages would be:

- it would require only a simple change to the legislation; and
- it would be relatively simple to publicize and explain to members.

5.5. It would be possible to supplement the modest provident fund pension with occupational or private schemes so that the higher paid could provide themselves with an additional pension during retirement. It would be advisable for such supplementary schemes to be regulated to ensure value for money and also to provide for portability of rights between schemes.

5.6. Despite its relative simplicity, conversion of the lump sum method to periodic pensions would have disadvantages. In particular:

- the average level of lump sums accumulated up to the present time is too low to be converted into a meaningful pension;
- such a system would not be 'social insurance' but still individual savings – with no social solidarity between individuals and groups;
- there would be no income redistribution either within or between generations;
- it would be more difficult than a defined benefit scheme to provide for indexation; and
- the illustration takes no account of the real level of pension at current prices in years to come and shows a much higher figure than the average lump sum actually paid (on average Rp.2.1m, not Rp.10m).

5.7. The level of accumulation could reasonably be expected to be a lot higher over a 30-year working life, especially if contributions were to be enforced on the correct level of actual income (instead of on a lower amount). Also accumulated balances would be higher if withdrawals from lump sums had not been permitted.

5.8. It follows that for provident fund age benefit to be payable as a periodic pension in any meaningful way, the provision for withdrawal of lump sums prior to retirement should be repealed.

5.9. However, the Actuarial Report projects that, given the current contribution rate of 5.7 per cent, the average payout at age 55 is expected to be equivalent to only 2.5 years' average contributory wage (compared with 5 months in year 2000) by the year 2030. This is still too low for a meaningful periodic payment to the average contributor.
A simple method for the conversion of the balance in the individual account is the single-life annuity, which is paid so long as the retired worker is alive (i.e. payment stops when the retired worker dies). The amount of monthly pension is determined according to the principle of equivalence of contributions and payments in terms of present discounted value. The monthly pension is calculated by dividing the final balance by the annuity factor, i.e. the present value of one currency unit of annuity.

5.10. As an option, one may add a guarantee period during which the payment is secured irrespective of whether the retired person is alive or not. For instance, if a retired person who chooses an annuity with a 10-year guarantee period dies 6 years after retirement, payments equivalent to 4 years annuity (i.e. the remaining guarantee years) will be paid to his/her survivors either as a lump sum or in the form of pensions.

5.11. The annuity factor depends on the assumed mortality rates, the assumed earnings rate and the length of the guarantee period. The following table indicates the estimated life annuity factors at age 55 by different earning rates and the guarantee periods.

- under the standard assumption of 5 per cent per annum and with no guarantee period, the estimated single life annuity factor is 12.6;

- the annuity factor is sensitive to the assumed earnings rate. Roughly, if the earnings rate increases by 2 per cent-points from the standard assumption, then the annuity factor decreases by around 10 per cent (i.e. the amount of pension becomes less); and

- if the guarantee period is longer, then the resulting annuity factor becomes more. Under a 5 per cent earnings rate and a 5 years' guarantee period, the annuity factor will increase from 12.6 to 13.3. A 10 years' guarantee period will further increase the annuity factor to 14.0.

Table 1. Estimated actuarial annuity factors at age 55 for selected interest rates and guarantee periods

Interest rate \ guarantee period (%)	0 year	5 years	10 years	15 years
0	21.0	22.3	23.9	26.0
2	16.7	17.7	18.9	20.3
4	13.7	14.5	15.4	16.3
5	12.6	13.3	14.0	14.8
6	11.6	12.2	12.9	13.5
8	10.0	10.5	11.0	11.5
10	8.8	9.2	9.6	9.9

Note: ILO calculation.
Data source: Mortality rates have been drawn from United Nations model life table (South Asian pattern with life expectancy at birth 64.3 years).

5.12 With respect to the old-age risk, life pension which is based on collective financial equivalence generally admits the redistribution from those beneficiaries who die earlier than average to those who live longer than average. Payments stop upon the death of a pensioner, and any unused resources are retained by the scheme and used to cover the costs of other pensioners who survive longer. This is how life annuity provides income security after retirement. In the case of a single-life pension, the retired worker is the sole beneficiary. However, it appears that the individualistic approach would not be suitable in Indonesia where a worker's family responsibility extends to a broad range of relatives. Imposing certain guarantee period may be an option to allow for extending the categories of beneficiaries. It should be noted that the amount of pension in this case is less than that of a single-life pension. This is because of the fact that if the degree of protection is higher the expected cost will be more accordingly.

5.13. Annuitisation involves another risk of longevity associated with the decrease in mortality rates over time. If the life expectancy becomes longer, an annuity calculated on the basis of short life expectancy no longer matches the accumulated balance and thus produces unfunded liability. The liability is to be covered by the Fund. To avoid such a problem, the annuity factor should be reviewed on a regular basis to reflect the current mortality level.

5.14. Inflation erodes the purchasing power of benefits. For example, if a rate of inflation of 5 per cent per year continues in the long run then a pension of Rp. 100,000 will gradually lose its worth and after 15 years its value will be equivalent to Rp. 48,000 in current value. Maximizing the earnings rate (keeping it at least above the rate of inflation) is therefore one of the most critical policy objectives. In the framework of the Provident Fund, however, it is difficult to protect systematically the real value of pensions or lump-sum benefits. Suppose, for instance, that pensions are adjusted in line with the increase in the average wage. Then, if the assumed net interest rate is 5 per cent per annum and the increase in the average wage is 3 per cent per annum, the interest rate is 2 per cent per annum in real terms. As a result, the annuity factor at age 55 increases from 12.6 to 16.7, which reduces the initial amount of pension by 25 per cent.

5.15. On balance it is not recommended that this should be the favoured option.

6. A notional defined contribution scheme

6.1. Another type of pension scheme that could replace the present Jamsostek scheme or be run in conjunction with it is generally known as a notional defined contribution scheme. Various forms of this system have been introduced in Europe during the last decade to replace PAYG defined benefit pension schemes. NDC schemes have the advantage that future pension liabilities can de determined by actuarial calculation each year and that contributors can be advised annually of the points they have earned towards a pension at retirement age. In the absence of the requirement to have paid a minimum number of contributions before a partial pension is payable contributions cannot be lost. Such a scheme is particularly suited to any later extension of coverage to the informal sector where insured periods can be very fragmented. It can be redistributive by restricting the maximum number of pension points that can be earned in any one year by higher paid workers. A version of the scheme could provide that a worker who earns the equivalent of the national average wage would receive one pension point per annum. A worker with earnings at or above the upper earnings level for contributions liability, for example, three times the national average wage, would receive the maximum-permitted three pension points per annum. Fractions of points would be calculated by reference to total annual earnings and the national average wage. Pension points can be revalued each year in line with any change in average earnings, prices, or a combination of the two, and contributors notified in writing of current values. The personal records to be kept on a central database can be limited to pension points rather than earnings details with contributors given a limited time in which to challenge their points total after the annual letter of notification.

6.2. A notional defined contribution scheme could be introduced for younger workers and a partial reserve fund established as a buffer against any significant change in the system dependency ratio, that is the number of workers required to support the pension of a single pensioner through their contributions.

6.3. Like many other countries in Asia and other parts of the world Indonesia has a population that is slowly aging (see Annexes 9, 10 and 14 for demographic projections). However, the projected support ratio may change significantly in the future for reasons quite unconnected with the average age of the population and it would be necessary to make a range of difficult assumptions before any worthwhile projection could be made. For example, the August 2000 labour force survey shows that about 33 per cent of Indonesian women of working age are housewives and outside the active labour force. Whether this participation rate will change or how it will change in future years will depend upon several factors including the national unemployment rate, the demand for female labour, the availability of child care facilities and changes in social attitudes to female employment in the different provinces. The numbers of young people taking advantage of further education will almost certainly grow. The productivity of the workforce can also be expected to grow with increased investment in industry. The lesson for those designing any contributory public scheme is that while projections of the system dependency ratio must be taken into account in setting contribution and benefit levels the whole future can never be seen. Inevitably the provisions of any scheme will need to be kept under review and changes made to cater for variations in the dependency ratio. Furthermore although the NDC system provides a mechanism for linking pension entitlement to average earnings, it does not necessarily ensure that the resources are available to meet this obligation in full. In fact, the system is open to political risks similar to those which other pension systems have faced.

6.4. These technical considerations represent an obstacle to the introduction of this system at present in Indonesia. In addition, the absence of any redistributive element would exclude or severely restrict pension protection in respect of surviving dependents and invalids and would result in new pension awards being at a low level low pensions being paid for many years until pension rights had developed. The administrative requirements associated with such a scheme would be difficult to meet. In particular, there is a lack of a reliable national identity number and the use of common single names in some provinces. Without a national database that could ensure that the record of contributions paid or points earned would be accurately maintained throughout each contributor’s working life the scheme would not be feasible. Under the present provident fund it is obviously to the member’s advantage to ensure that periods of membership are linked and that contributions are paid by employers but linking records and ensuring compliance are major problems.

7. A mandatory defined contribution scheme

7.1. Another option might be to modify the old-age benefit part of the Jamsostek provident fund scheme into *a mandatory defined contribution scheme* in which contributions are collected and invested by Jamsostek or transferred for investment by an approved and regulated private pension company of the contributor's choice.

7.2. Contributions to the defined contribution scheme could be split equally between employers and employees and collected as now from employers after legislation had been introduced to change the status of Jamsostek to that of a trust fund. It would greatly improve the efficiency of contribution collection and compliance if Jamsostek could be given the legal right to appoint inspectors with powers of entry and the right to examine payroll records at employers' premises. The present arrangements whereby labour inspectors employed by local government act as agents for Jamsostek are patently inappropriate and ineffective. The current collection rate of around 40 per cent must be improved dramatically before any reforms are likely to be productive.

7.3. All the contributions from scheme members could be invested in a single fund managed by Jamsostek or in a fund of the contributor's choice chosen from an approved list of pension companies. Contributions would be collected by Jamsostek and forwarded to the chosen company within a fixed number of working days as provided for in pension legislation. Jamsostek would be one of the approved pension companies and allowed to compete on equal terms with others on the approved list. Effective supervision and an insistence on good governance would be essential if the confidence of contributors is to be retained. But choice for contributors and competition between pension companies for the custom of contributors should go a long way to ensuring good governance. The following briefly summarised provisions are examples of the key elements that might appear in legislation aimed at ensuring that contributors receive good service and satisfactory returns over the longer term on investments from their chosen pensions company and fund managers:

- contributors to be able to transfer their savings from one to another approved pension company after giving Jamsostek notice in writing. The transfer to be carried out within the number of days stipulated in pensions law, for example, one month;

- a Pensions Supervisory Board to be established to oversee the scheme and approve pension companies and annuity providers before they can accept contributions. The Board to publish an annual report that discloses the true investment performance of each approved Pension Company;

- the maximum charges that approved pension companies can charge contributors to be established in the pension law;

- special benefits are not to be offered by pension companies to persuade contributors to invest with the company;

- the methods used to value investments to be detailed in law and the valuations carried out monthly;

- at retirement age each scheme member to receive part of the amount invested as a lump sum while the remainder is to be used to purchase an annuity. The purchase of an annuity may be delayed for up to five years;

- the beneficiary of a deceased contributor to have the same rights of annuity purchase;

- a contributor to have the right to purchase an annuity from an approved list of providers. The providers to offer a wide choice of annuity types without special terms related to health, gender, race or similar criteria;

- all annuities sold must increase in value when price inflation exceeds a percentage specified in the law;

- each contributor to be issued with a six monthly statement showing the amount standing to his or her investment account;

- the Pensions Supervisory Board to specify the proportion of a pension company's investments that may be invested in a particular category of investment, for example, bonds, bills or other securities issued by the National Bank; and

- the Pensions Supervisory Board to require each approved Pensions Company to contribute to a national pensions guarantee fund to be used to pay an annuity where a provider has failed to do so.

7.4. The above brief list of outline provisions gives some indication of the complex legislation that is required to ensure that the funds of contributors are safeguarded to the best possible extent when invested in an approved private pensions company. Any legislation would also need to include the penalties to be imposed on any company failing to comply with the requirements of pension legislation. Investment with any pension company will carry some risk but if a scheme could give contributors a choice of company and details of investment performance are published regularly this should ensure a competitive environment and satisfactory investment returns and annuity rates. Indonesia is in the process of establishing a national financial services supervisory body and it would appear that machinery will soon be in place to allow for the effective supervision of privately managed funds.

7.5. The advantages of such a defined contribution scheme with individual accounts in a private fund of the contributor's choice can be summarized as:

- investments should grow at a rate above the rate of inflation;

- with an individual stake in the capital markets a worker should be better motivated; and

- increased investment in national industry and commerce could improve job prospects.

7.6. Disadvantages include:

- the risk of poor investment performance is carried by the contributor;

- inadequate supervision may lead to corrupt practices;

- a recession at the time of annuity purchase can lead to a shortfall in expected income; and

- interest rate changes will affect annuity rates;

- the competitive nature of the system could result in high administrative asks for advertising and promotion or to a preference for covering larger more efficient companies rather than small, inefficient ones.

7.7. It is considered that the disadvantages, particularly the complexity and need for strict regulation, outweigh the advantages, some of which apply also to partially funded, defined benefit schemes.

8. A mixed pension system

8.1. A simple but mandatory mixed system under which a flat rate defined benefit system is supplemented by a defined contribution system could be another option suited to the diverse Indonesian labour market. This would recognize that a defined contribution scheme, with the possibility of investment choice, may perhaps best be mandatory only for workers with an income above a certain level while an underlying defined benefit scheme, as described in earlier paragraphs, would be mandatory for all workers. However, workers with earnings below the mandatory threshold could be allowed to volunteer as contributors to the defined contribution scheme (see Annex 12 for the wage levels of Jamsostek contributors). Whether two such schemes could be run in parallel would depend very much on the contribution levels applying to the universal, defined benefit scheme.

8.2. Each worker could pay a contribution of between 2 per cent and 5 per cent of his or her gross wage with a slightly larger employer contribution. The actual percentages can only be determined in the light of actuarial findings but there would be a need to keep the worker's contribution as low as possible in the early years of the scheme. From each combined contribution the equivalent of perhaps 5 per cent of the provincial minimum wage would be allocated to a defined benefit scheme. Any balance over and above that 5 per cent would be allocated to the worker's personal Jamsostek investment account, or another privately managed fund that the worker had chosen from a list of approved pension providers.

8.3. There would need to be an upper wage limit for this mandatory contribution to allow higher paid workers the opportunity to contribute to a voluntary, third tier pension scheme should they wish to do so.

8.4. The pension payable under the defined benefit scheme at pension age to those who had contributed for, say, 30 years would be a fixed percentage of the provincial minimum wage. This percentage would probably need to be at a minimum of 60 per cent to provide an acceptable standard of living together with some family support, but again could only be decided following an actuarial assessment nearer the time the scheme was launched. If a contribution record showed earnings in more than one province a pro-rata pension based on two or more minimum wage levels would be payable. Any 'voluntary' contributions to the defined contribution pension fund would be used to purchase an annuity at pension age or could be paid in part as a lump sum.

8.5. Entry to such a scheme would probably need to be restricted to workers below the age of, say 45, with a transitional provision allowing a full or enhanced partial pension under the defined benefit scheme to those who will be unable to qualify for such a pension before reaching retirement age. The cost of such a transitional provision would be high and possibly higher than the scheme could afford. A subsidy could be provided from the government central budget in the interests of social solidarity and to ensure the reformed scheme had a good reception from older workers. An option might be to use funds from the sale of State enterprises or the proceeds from a dedicated tax on luxury goods for the purpose.

8.6. A survivor's pension or lump sum could be payable under the defined benefit scheme and a survivor's lump sum of total contributions plus investment income from the defined contribution scheme. Again the decision on whether a survivor's pension could be offered to older workers to supplement the lump sum payable to those with savings in the existing Jamsostek provident fund would need to be made in the light of actuarial findings at the time the scheme was launched.

8.7. As mentioned earlier it would be an option to allow existing Jamsostek fund holders to purchase a partial contribution record in a new scheme. The value of contributions to achieve a minimum record giving the right to a partial pension could be fixed at a true value after actuarial assessment, or a decision made to reduce the cost to older workers to below the actual value with an appropriate government subsidy to cover the difference.

8.8. Operating two different systems in tandem may be too difficult to ‘sell’ to the working population; it may also be considered too divisive and too complicated to meet the objective of transparency and too administratively expensive to be viable in the short term.

9. A defined benefit scheme

9.1. The conversion of the Jamsostek Provident Fund to a partially funded public *defined-benefit* scheme offers a number of advantages in enhanced income security.

9.2. Such a scheme pays a benefit after a fixed number of years during which contributions have been paid. Defined benefit schemes call for a number of choices as to the best option at various stages in its design. The first question for policy makers is the extent to which the scheme will be redistributive. The choice is between:

- a fully flat rate scheme – where all members pay the same contribution and eventually receive a pension on a similar basis;
- a scheme with earnings-related contributions giving rise to a flat-rate pension; or
- a fully earnings related scheme – where both contributions and pensions are related to earnings.

9.3. A number of factors need to be taken into account:

- striking the right balance between securing support for redistribution and encouraging evasion. In Indonesia, evasion by employers is a major problem and takes the form of non-registration, under-declaration of workers and their earnings and delay in payment;
- equity and coverage. It should be one of the objectives of the scheme to extend coverage to as many workers as possible;
- encouraging coverage of those who work for small employers. The imposition of a heavy social security contribution and more effective compliance may have economic implications for small employers which cause them to go out business or to portray their workers as self-employed temporary or family workers;
- affordability; and
- allowing scope for the development of private sector schemes to provide supplementary pensions.

9.4. A fully flat-rate scheme, although the easiest to administer and to understand, has the disadvantage that it has a negative redistributive effect: with the lower income earner paying a higher proportion of disposable income towards a pension than those in higher income groups.

9.5. The combination of earnings related contributions with a flat rate pension clearly redistributes resources from the better-paid worker to the less well paid. (See Annexes 5, 6, 7 and 15 for current wage levels).

9.6. The fully earnings related system is more neutral in its redistributive effect, although a measure of redistribution can be achieved by introducing contribution or benefit ceilings.

9.7. Earnings related contributions encourage the employment of low paid workers but low paid workers may suffer hardship in retirement from low pensions which are disproportionate to their basic needs

9.8. Thus there could be an option for an earnings related contributions scheme with an upper earnings limit while paying a capped or limited earnings related pension.

On this basis the scheme could operate within a structure of:

- earnings related contribution ceiling - Rp. 2 million (figure used as tax threshold);
- pension ceiling - Rp. 1 million (2x average earnings); and
- minimum pension - 60 per cent of minimum wage. (See Annexes 4 and 5 for minimum wages by province and national wage levels.) There would probably need to be a rule that restricted a worker's pension to a percentage of his or her earnings over a period prior to the retirement date. The limited evidence gathered on wage rates in the informal sector suggests that many full-time workers earn only a little above the local minimum wage while the daily wage of part-time workers is fixed by reference to that same minimum wage. A further option on pension levels would be to fix a national guaranteed minimum to ensure that those who had worked in the provinces with the lowest wage levels received a pension at least at a subsistence rate provided they satisfied the contributions qualifying condition.

9.9. Each beneficiary would need to satisfy *contributions conditions as a test of membership*. The minimum number of paid contributions in a year and the number of years during which contributions must have been paid to receive a pension will normally be related to the pensionable age, currently age 55. The life expectancy of both males and females who reach age 55 or 60 is increasing (see Annex 15) and an important decision for those designing any reformed Indonesian pensions system is whether to retain age 55 or increase the retirement age to 60 in stages over a number of years. In the absence of reliable information on the average length of insurable employment it will be difficult to arrive at an informed decision on the appropriate contributory period but the chart at Annex 8, showing the high preponderance of younger workers contributing to the Jamsostek provident fund, suggests that the average period of insured employment is not over-long. A minimum of 10 years with a maximum of 30 years could be appropriate if the retirement age is to remain at 55. With a retirement age of 60 the minimum might be 15 years and the maximum 35 years. Age 60 could be regarded as the retirement age with provision for early retirement from age 55 with a pension reduced in accordance with actuarial principles for each month of early retirement. It would be inequitable to pay a retirement pension to someone who was still working but it would be difficult to police such a provision. The choice of age 60 as pension age would represent a partial solution of this problem.

9.10. It would also be necessary to provide graduated contribution conditions under which minimum pension entitlement was dependent on the contributor having paid contributions for 180 months (or been credited with contributions: see below) This could provide entitlement to a pension of 30 per cent of his or her average insurable earnings with this base supplemented by an additional 1 per cent for every additional 12 contributions. On this basis after 35 years of membership a pension of 50 per cent of average earnings would be payable. Those who do not satisfy the minimum qualifying condition could be paid a lump sum representing an approximation of their contributions plus interest.

9.11. Such a scheme might be able to afford to pay a small lump sum on retirement. Other policy questions associated with defined benefit schemes are discussed in the following paragraphs.

9.12. *Dependency increases* are paid in some pension schemes for dependent spouses and children. When the head of the family is aged 55 it will be common in Indonesian families for the household to include dependent children and an option would be to increase pensions by a fixed amount for each dependant. This is, however, a major complication for any scheme and in the interests of low administration costs it may be considered best to leave the question of additional financial assistance for larger families to better-targeted, anti-poverty programmes.

9.13. As outlined in Annex 1 the Jamsostek scheme provides for a *totally and permanently disabled* person to withdraw all his or her accumulated pension fund savings in the form of a lump sum or to receive a periodic pension over a period of up to five years. In practice all claimants request and receive a lump sum. The claimant must submit a medical certificate from a family doctor certifying the extreme degree of disability. There is no procedure requiring a Jamsostek medical officer to confirm the medical assessment of the claimant's own doctor. In a reformed scheme paying pensions for life after retirement, and a life disability pension to those disabled persons who are unable to return to the workforce, the important question of how best to assess a claimant's disability will arise. Pensions law will need to specify the criteria to be applied by examining medical officers and could include perhaps one or more degrees of disability ranging from permanent disability but with the ability to live without permanent help from another person, to permanent disability requiring constant attendance by another person. Experience in other Asian countries shows that without adequate and efficient well-trained examining medical staff employed by or under contract to the social insurance institution there is every chance that the disability pension scheme will not function as intended and that costs will escalate. There would probably be a need for a minimum qualifying period for contributors to the pension scheme before a disability pension could be paid. This might be any period between 2 and 5 years.

9.14. A *survivor's benefit* in the form of a lump sum representing the provident fund balance standing in the name of the deceased is paid to the spouse or another surviving relative under the Jamsostek scheme. It would be normal in a social insurance scheme to find that survivors were paid either a lump sum or a pension. A surviving spouse of a contributor who had contributed for a fixed minimum number of years would normally receive a lump sum if below an age at which it would be possible to find work and build a contribution record for a pension. For an older survivor, below or above pension age, a survivor's pension could be based on a fixed percentage of what was, or would have been, the pension entitlement of the deceased; for example, 60 per cent. If such an older survivor was not entitled to a pension, the rules could provide for a lump sum to be paid at the rate payable to a younger survivor. An option would be to increase the rate of survivor benefits in respect of dependent children. A decision would rest on the issues of administrative complication, benefit costs and whether other programmes catered for the cost of child support. When the survivors include two or more wives the options will be to pay the one wife nominated earlier by the deceased or to divide the survivor's benefit that would be payable to the eldest wife between all the wives.

9.15. Any *conversion exercise* aimed at providing Jamsostek contributors with a monthly retirement pension will face the question of the options to be offered to existing contributors. (See Annex 8 for the age breakdown of Jamsostek new entrants). When transitional provisions are generous they will encourage the existing scheme members to enter the new scheme and assist in its launch. Special qualifying conditions would need to be devised and Jamsostek members invited to decide within a prescribed period whether or not to convert their provident fund account, wholly or partially, into months of pensionable employment. One mechanism would be to apply a divisor, equal to the average monthly contribution paid by the insured person in the last year of provident fund membership, to the provident fund balance and thus calculate the number of months of pensionable employment which could be added. Existing Jamsostek members aged over 50 could be allowed to choose whether to continue with the present scheme or purchase membership on this basis. Those who are younger would be obliged to join the pension scheme but could opt either to leave their provident fund contributions in their account or to convert these as above. Another option might be to modify the retirement conditions for those close to retirement at the time of conversion.

9.16. In long established social insurance schemes there is usually a provision allowing certain categories of person to be *credited with a monthly contribution* when they are in no position to work. Credits, which will maintain a person's contribution record, can be awarded for periods of sickness, maternity, and unemployment when those benefits have been claimed and paid. Credits can also be awarded to those who are at home caring full-time for dependent children or an invalid and to those in full-time education. Many of these credits are of great benefit to female workers who tend to experience more breaks in their employment than do their male colleagues. (See Annex 6 for the sharp fall in the number of female workers after age 44 and Annex 8 for the small intake of this age group in the Jamsostek scheme) Of course, to the extent that crediting is permitted other contributors are subsidizing the beneficiaries. It will be an option to introduce a limited form of credit provision that can perhaps be extended as other benefits are introduced.

9.17. The level of contributions to sustain a scheme on the above lines will depend, of course, on the options on benefit levels and particularly on a retirement age. Thus the current level of contributions to the Jamsostek provident fund retirement programme of 5.7 per cent (employer 3.7 per cent, employee 2.0 per cent,) plus the addition of the 0.3 per cent contribution for death benefits could be retained to pay for the new, replacement scheme. The funding mechanism would, however, be different since instead of the contributions going into individual (savings) accounts they would fund current pensions on a pay-as-you-go basis, supplemented by interest earned on investing the reserve fund built up by a partial, advance-funding system.

10. A scheme for the informal economy workers

10.1. The informal labour market or sector in Indonesia is not easily defined. Every person employed in a properly constituted company with 10 or more employees is required to contribute to the Jamsostek social insurance scheme, as are the employees in a similar company with a total payroll of more than Rp. 1 million. As provincial minimum wages in the year 2000 ranged from Rp. 173,000 to Rp. 350,000 (see Annex4) with most workers earning between Rp. 200,000 and Rp. 500,000 (see Annex12) it is evident that many employers with fewer than 10 employees are liable to contribute to the scheme and can be regarded as within the formal sector. It has been estimated that there are over 2 million employers in Indonesia of which only 97,000 are registered with Jamsostek. The labour force survey of August 2000 shows the active labour force, urban and rural, (defined as those normally working one hour or more in a week) as approximately 90 million as against around 9 million workers with active Jamsostek files. Of these 90 million workers, aged between 15 and 55, only 40 million were working more than 35 hours per week while it has been estimated that another 40 million have no permanent job. The ideal for any social insurance scheme is that it should cover all citizens and that risks should be shared. With the increasing mobility of labour the problems facing any restricted scheme will also increase. The question for Indonesia is whether it is possible to construct a scheme that meets the needs of the informal economy without producing major problems for schemes in the formal sector.

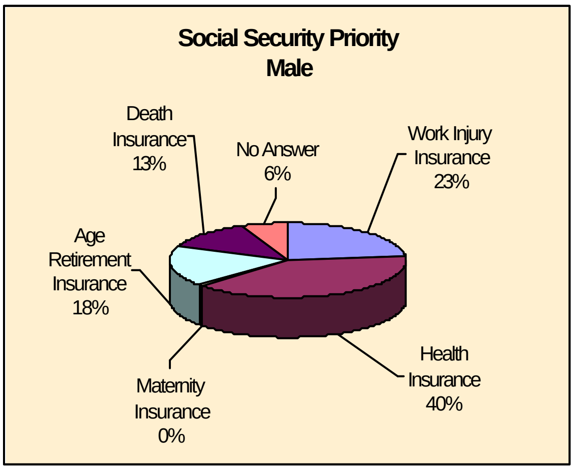
10.2. The Jamsostek estimate (year 2000) that under existing provisions 26.7 million formal sector workers should be contributing to the Jamsostek scheme .A very small survey of informal economy workers carried out by the ILO project team and from discussions with Jamsostek officials, Department of Manpower and Transmigration officials and with those attending workshops revealed that most full-time workers in the informal sector are paid the local minimum wage plus an occasional bonus linked to performance. Daily earnings of this group probably average at around Rp. 15,000, but it would be necessary to conduct a fairly extensive survey of the informal economy labour force in order to obtain more reliable information. Other important questions that could be answered by such a survey and which need to be considered by those designing a very basic social insurance scheme suited to the needs of the informal economy are:

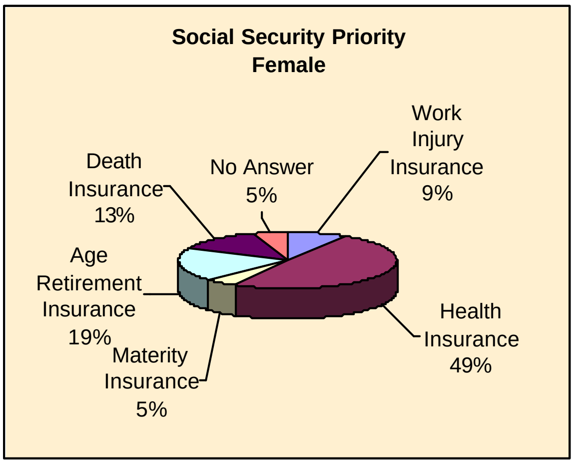
- how much can these workers *afford* to contribute each month?
- how much are they *prepared* to contribute? and
- what risks do they see as a priority for cover?

10.3. A small-scale survey of 2000 informal sector workers from Jakarta, Bandung and Yogyakarta was conducted as part of the study on extension of cover and the findings suggest that at least 50 per cent of the informal sector workers surveyed would be unable to make effective contributions as they earned between one half and the average minimum salary which is recognised as being below the poverty line in most provinces. About 42 per cent of those surveyed indicated that they could pay at least Rp. 20,000 per month and a full breakdown of the potential monthly contributions was:

- Rp. Less than Rp. 10,000 — 44.47 per cent;
- Rp. 10,000 – 20,000 — 26.01 per cent;
- Rp. 20,000 – 30,000 — 9.95 per cent;
- Rp 30,000 – 40,000 — 6.15 per cent; and
- More than Rp. 40,000 — 1.65 per cent.

10.4. The desired social security priorities for male and female respondents are shown below.





10.5. On the basis of the above estimated level of income it is suggested that full-time informal economy workers (that is those working 35 hours per week or more) might be prepared to contribute a flat rate Rp. 20,000 per month to a scheme. The administration costs of collecting such a small amount rules out any collection system other than direct payment of the whole amount by the employer. If employers were required, in addition, to pay Rp. 40,000 for all full-time workers the resulting fund income should be sufficient to provide a small pension after 15 years of fully paid contributions. Employers would face a 10 per cent increase in their wage costs and evasion could result in a low collection level. An alternative might be to require the same Rp. 20,000 plus Rp. 40,000 contribution for all workers who receive monthly wages at or above the local minimum wage. This would allow labour inspectors to more easily identify employers paying below the minimum wage and avoid any evasion by manipulation of working hours. Therefore an alternative to a national flat rate contribution would be a provincial flat rate adjusted in line with the provincial minimum wage. Under this arrangement the rate would be reduced significantly in those 11 provinces with a minimum wage below Rp. 200,000 (see Annex 4).

10.6. The above arrangements, with flat rate contributions collected from a working population with fluctuating work patterns, probably rules out the minimum contribution condition found in traditional defined-benefit schemes. Provision would therefore have to be made for a lump sum payment representing an approximation of established contributory pensionable employment to be paid on retirement.

10.7. Many informal sector part-time workers will be unable pay contributions from earnings below the monthly minimum wage for their province. Consideration should be given to integrating the informal sector and the self-employed to an extent in a national scheme. This would require an element of redistribution or cross subsidy which would require analysis to avoid obvious inequity. One option would be to require all employers employing part-time workers to pay a flat rate contribution of Rp. 30,000 for each worker, irrespective of the number of hours worked. If total hours of work exceeded 35 or monthly wages exceeded the local minimum wage a full combined contribution of Rp. 20,000 plus Rp. 40,000 would be payable. There would need to be a lower earnings level below which a monthly contribution was not payable but it would be necessary for employers to list such exempt workers on their monthly returns to Jamsostek for the purposes of compliance control.

10.8. An alternative approach would be to develop a universal tax financed pension scheme which did not rely on contribution conditions. This could for example provide for every person who had been resident in Indonesia for 20 years to receive at age 60, a flat rate pension of a prescribed amount based on a percentage of the minimum wage, the subsistence level or average earnings. A variation could exclude those who received a public sector pension. This could provide the first tier/safety net for a three-tier social security system and could thus be supplemented by a public defined benefit social insurance system and by defined contribution arrangements.

11. A scheme for the self-employed

11.1. The self-employed who numbered 19.4 million at the time of the August 2000 Labour Force Survey will be engaged across both the formal and informal sectors but are currently not liable for contributions. Experience in other Asian countries is that when offered voluntary participation in a social insurance scheme the number of self-employed volunteers tends to be low. The problem of adverse selection arises as a major consideration only when a scheme offers incapacity or disability benefits. If the self-employed were offered participation in a retirement scheme adverse selection would not normally present difficulty. An option would be to offer the self-employed voluntary participation in a national scheme with the contribution level set at the joint employee/employer rate or at a fixed lower rate of perhaps Rp. 40,000. Due to fluctuations in income an option would be to invite self-employed workers to agree a provisional assessment of their future income for the calculation of contributions liability and make quarterly collections until actual profits could be better assessed, perhaps at the end of each accounting year, when an adjustment could be made. Consideration could then be given in the future to the extension of coverage on a compulsory basis to certain categories of the self employed such as those who had employees, those who had an established place of business, were registered tax payers or were otherwise readily identifiable.

12. Pensions administration

12.1. If the costs of a pension scheme are seen to be rising there are several traditional means whereby these can be controlled. Perhaps the greatest danger for any scheme is that the income from workers contributions will fall when pension costs are rising. In Indonesia a current priority must be to increase the contribution collection level well beyond its present level of approximately 40 per cent. But 40 per cent compliance is obviously undesirable in a defined contribution scheme those who lose out are the individual contributors. Where, on the other hand, the old age provisions are provided by way of a social insurance system (with pooling of risk and income redistribution between generations) low compliance can threaten the structure and credibility of the scheme. Without an organization that can ensure the maximum compliance by employers it is unlikely that any pension scheme will provide the workforce with adequate financial security in old age. It is equally essential for the social security system to establish a national database for the recording of contribution records or pension points.

12.2. The following are scheme modifications that can be made to meet any fall in scheme income:

- Raising the upper earnings limit for contributions.

  Scheme income will be increased immediately but where pensions are earnings related the change will tend to benefit higher paid workers who are better able to retain their higher earnings into the later years of employment and live longer on average than lower paid workers. This regressive effect could be modified by calculating pensions on the basis of career earnings or limiting the maximum pension by reference to either the national average wage or the average of the provincial minimum wages.

- Raising the employee contribution rate.

  The danger is that lower paid workers will be worst affected and may be tempted to move out of the formal sector to avoid payment. (See Annex 11 for one estimate of the relative size of the formal and informal sectors).

- Raising the employer contribution rate.

  This change could reduce the competitiveness of those employers who compete directly with foreign enterprises with lower costs, and could in the longer-term result in the loss of employment opportunities. It was stressed by employer representatives at the ILO/Depnakertrans workshops that many small employers would find it extremely difficult at the present time to increase their contributions beyond the present level of 3.7 per cent and that some larger employers in depressed industries were currently unable to contemplate higher labour costs.

- Reducing pension rates for higher paid workers.

  This could be more acceptable to higher paid workers if they were at the same time contributing to a second pillar public or private pension scheme.

- Raising the pension age.

  This is usually done by giving several years notice and then phasing the change over a number of years so that older workers are not forced to change their plans for retirement. Annex 16 shows the increasing life expectancy of workers who reach retirement age. This increase will have a significant effect on future pension costs. Participants at the ILO/Depnakertrans provincial workshops made the point that while many workers would prefer to have the right to remain in their formal sector employment beyond age 55 there was a feeling that any increase in the pension age would be to the detriment of young people entering the labour market who would find their job opportunities reduced.

- Exercising strict controls over disability pension claims.

  When a scheme provides for a disability pension there will be the temptation for some workers to see claims as a way to early retirement. If effective control measures are not in place, the cost of such pensions can escalate. Experience in other countries shows that some employers may attempt to avoid paying higher severance pay to older workers – by encouraging them to claim a disability pension.

- Amalgamating public and civil service pension schemes.

  There will be advantages for any pension scheme in extending the number of its contributors and civil servants with above average lengths of insured employment will add to the sustainability of any pay-as-you-go scheme. It may be possible to provide civil servants with a separate civil service superannuation scheme and this is discussed below.

- Changing the method of indexation.

  Pensions can be indexed by reference to prices or wages, a combination of both or by an amount limited by statute to what the government decides the economy can afford in a particular year. One method may favour pensioners at a particular time in the economic cycle while at another time, for example, when wages are rising faster than the prices used for indexation, the same method could favour the contributors. If pensions are calculated by reference to earnings or national wage levels it might be seen as appropriate to index pensions using recent changes in wages. Over a period of years wage increases usually reflect both price changes and increases in productivity.

13. The civil service pension scheme by PT TASPEN

13.1. *Tabungan dan Asuransi Pegawai Negeri (PT TASPEN)* is a State-owned enterprise or *Persero* that runs a form of social insurance scheme for civil servants. The 2001 State budget allocated Rp. 40 trillion towards the cost of current civil service pensions. This figure represents 75 per cent of annual pension expenditure while the balance of 25 per cent is met from earnings related contributions of 4.75 per cent. The average monthly pension is Rp. 800,000 representing 80 per cent of final earnings. The term "civil servants" includes all 4,020,000 permanent employees of both central and provincial government plus some State-Owned Corporations. Many civil servants pay an additional 3.25 per cent of salary as an insurance premium that provides them with a lump-sum on retirement of 55 per cent of final month's salary for each year of service plus death and survivors benefits. Pensions are indexed in line with salary increases in the government service. All pension rights are lost if a civil servant leaves the service before the retirement age of 56, or is dismissed for any reason. After retirement the pension is withdrawn from those convicted of a criminal offence. A full pension is payable on loss of employment due to permanent disability. Survivors receive 60 per cent of the pension due to the deceased and additions are paid for dependent children. Annex 18 shows the TASPEN Pension Fund balance sheet for the year 2000.

13.2. TASPEN pays 1,778,054 pensions and accepts claims and provides a service to pensioners and contributors through its Head Office, 7 regional offices and 38 branch offices. It employs 2,195 staff.

13.3. Discussions are continuing in government on how to reform the civil service pension scheme and reduce the government's financial commitments. The scheme suffers from inadequate contribution levels, below market level investment returns, higher than average administrative costs and demographic change that has increased the number of pensioners relative to the civil service complement. A current civil service pensioner is supported in terms of pension contributions by 2.6 working civil servants so with pensions based on final earnings the scheme contribution rate in the absence of government subsidy would need to be in the region of 40 per cent, a totally unrealistic level. The civil service is not reducing in size and it has been suggested that existing pensions should be financed entirely from the State budget while current civil servants continue in the present scheme and all new entrants join a reformed scheme. The reformed scheme would require monthly contributions from both employer and employee and be self-financing. If these reforms are adopted the change would appear to provide the option for civil servants to join a public pension system with a civil service funded scheme providing a second pension.

13.4. When a national social insurance scheme is introduced that extends into the informal sector it will be necessary to increase the staff complement of the social security institution beyond the current Jamsostek complement and add to the network of branch offices. If the civil service were to have its own occupational pension scheme and at the same time be liable for contributions to the mandatory part of a reformed State pension scheme there would be an option for Jamsostek to take control of the TASPEN network of branch offices to produce a national network with staff that had a background of pensions work. This would represent a significant saving over the costs of establishing new branch offices and recruiting and training new staff. TASPEN is currently responsible for the service pensions of ex-servicemen above a certain age. There would appear to be an option of transferring all government pension schemes, service and civil, to a central pensions office if a decision is made to require all citizens to contribute to a reformed State pension scheme. The organisation and arrangements for the payment of military pensions has not formed part of this study but it is assumed that further staff savings could accrue from amalgamation in this area.

14. Employer based and financial institution pension plans

14.1. There are currently less than 400 employers who use approved employer pension plans administered by trustees. This represents only a small percentage of companies making up the formal sector and a minute fraction of the 2 million employers in Indonesia. Financial institutions offer pension plans to the self-employed and to companies without an approved employer based scheme. Both types of pension plan tend to be defined-benefit schemes with pension entitlement based on the insured person's final month's salary. In the time available it has not been possible to examine investment practice or the performance of private pension companies but anecdotal evidence is that performance is variable. The government's current policy is to allow full competition with effective supervision of the financial markets. An optional provision in a mandatory second tier pension scheme (see above) is to allow employers to offer workers who wish to opt-out of the State scheme an alternative scheme with an approved pension company that is prepared to provide a pension at least as beneficial to the recipient as the government scheme. However, such a provision tends to reduce the size of the risk pool, weakening the State scheme (as has been the case with the opt-out clause in the Jamsostek medical care component). Such a provision is not, therefore, recommended for Indonesia.

14.2. Approval of these voluntary, third tier schemes may be subject to the requirement that each pension company limits its charges within the maximum set by government regulation. At present investment fund managers are required to invest exclusively in the Indonesian financial markets. Other countries have found that this restriction, while apparently advantageous for developing the national financial infrastructure in the short-term is best described as a policy of putting all one's eggs in one basket. An option is to allow perhaps a 10 per cent investment in foreign securities with a gradual increase to a maximum of 40 per cent when pension funds form a major part of national investment. The local annuities market is said to be still immature. An option would be to allow approved foreign companies to compete in this market in order to provide workers with the best possible income in retirement.

15. Preparation for a new pension scheme

15.1. Several participants at the ILO/Depnakertrans workshops expressed the view that both workers and employers were generally ill informed about the Jamsostek pensions and benefits schemes. There has been only limited social dialogue on social security issues and a general lack of awareness about social security concepts. When employer and worker representatives were asked how they saw the priorities for reform of the current social insurance scheme the employers tended to place work-injury and health insurance before pensions reform while the trade unions felt that existing benefits and pensions had equal importance and that all rates required improvement with pensions paid monthly for the whole of a pensioner's life. It was a general complaint that the government took a profit from Jamsostek funds and there was general approval for oversight by a tripartite board that was seen as an essential if there is to be more open and transparent management of Jamsostek.

15.2. There is a need to encourage greater involvement of senior policy-makers and to educate social partners on social security principles and options for developing social protection. Before the new scheme is launched it would be essential to prepare a communications strategy that can ensure that employers, contributors and pensioners are aware of the advantages of the scheme and the obligations of the various stakeholders. Such a strategy usually calls for television and radio advertising, for posters that can be displayed in, for example, post offices, and for a series of leaflets on the various benefits and pensions that can be made available to the public in Jamsostek local offices and perhaps local government offices. In addition there will be a need for an employer's guide that can be distributed to all participating employers. This can explain the responsibilities of employers and the procedures they need to follow. Immediately before a new social insurance scheme starts it is usual for the responsible government agency to arrange local meetings of employers, trade unions and other interested parties to explain the finer points of the scheme and answer questions about the start-up procedures. Given the present poor public perception of Jamsostek; many workers are said by their employers to refuse to contribute to the Jamsostek pension scheme, it will be an option for government to change the name of the organization to signal the changes introduced by the reformed scheme. This is a common practice in many countries at the time of social insurance reform. However, at present a potential change is being signalled to members by referring to the institution after the change of status to a trust fund as *Jamsostek Baru* (New Jamsostek).

15.3. Although this report provides an outline of the a possible pension scheme for Indonesia and Section 9 suggests a possible formula for this, it is clear that the country is at a very early stage of planning and a long way from reaching an informed consensus about the detail of the preferred scheme. Further work needs to be done to establish the real social insurance aspirations of the workforce, both formal and informal and the monthly premiums they can afford to contribute to a national scheme. It is also clear that there has been only limited social dialogue on social security issues

15.4. It is suggested that the first step should be an information gathering exercise to solicit views from a wide cross section of the workforce. The answers could vary significantly as between provinces given the different stages of development and could point to the option of designing a national scheme with slight variations to meet provincial needs. When a decision has been made on the national system it would seem politic to conduct several pilot exercises to test its administration. Such pilots could cover the recording of all employers in an area, the recording of individual employees, the establishment and training of a team of compliance inspectors and the feasibility of local schemes with reduced rates of contribution for the low paid and possibly part-time workers. Schemes to meet the special needs of the self-employed will be another option but it is generally an advantage if the self-employed contribute to a universal scheme covering as large a part of the workforce as possible. The successful results from such pilots could then be applied in larger geographical areas until they were operating in two or three provinces. Only at that stage, when operating systems were seen to work well at a cost that a national system could afford, would it be time to extend the scheme to become a national social insurance scheme.

16. Conclusions

16.1. From the limited contact made directly with individual workers during the study it was found that Indonesian workers would like a pension scheme that will provide an adequate income in retirement. The above options for pension schemes give scope to those designing a future national social system to meet these aspirations of the national workforce. There are a number of key factors that guide recommendations on an appropriate structure for a pension system for the private sector in Indonesia including:

- provident fund balances withdrawn whenever possible;
- short-term perspective of social protection needs;
- low incomes and expectations among workers;
- low participation rate and non-compliance among both employers and their workers;
- poor public perception of the private social security system and the institution administering it (PT Jamsostek);
- lack of awareness of social security principles;
- limited administrative capacity – in particular, the ineffective enforcement procedures and lack of capacity to pay periodic benefits;
- undeveloped private pensions and insurance sector;
- weak capital markets;
- public sector pension schemes are well established but are under financed;
- the public sector scheme does not have portable benefits and this discourages labour mobility; and
- restructuring is necessary.

16.2. It is evident from the high number of lump sum withdrawals from the Jamsostek provident fund (see Annex 13) that the fund is not being used to provide security to its members in old age in that benefit is not being provided by way of a periodic pension that is indexed as a protection against inflation. Instead, the provident fund is acting as a substitute for a basic unemployment benefit scheme in that the vast majority of the premature withdrawals are by those workers who have lost employment before reaching retirement age.

16.3. Even without the provision to withdraw lump sums before pension age, there is an underlying preference for the short-term benefit of a lump sum against the alternative (*de jure* if not *de facto*) of a periodic pension over a period of five years.

16.4. The low national average income means that contribution income is low and there is resistance to any increase that might fund a higher level of benefit. In the wake of an economic crisis employers are also reluctant to pay more or increase their labour costs. With the scheme being essentially an individual savings scheme with a direct relationship between the contributions paid and the lump sum entitlement, expectations are low.

16.5. The present coverage of the Jamsostek old age benefit scheme is only around 10 per cent of the workforce. This is partly due to the legislation not having been extended to cover the whole of the private sector but also due to widespread non-compliance. This non-compliance includes employers who should be covered (given that they employ 10 or more workers or have a payroll of Rp.1 million a month or more) and also employers who pay contributions in respect of fewer than their total labour force and on lower than actual wages paid. Low pay levels tend to discourage workers from complaining to Jamsostek about low deductions from their pay packets.

16.6. The poor public perception of Jamsostek is partly due to poor service in the past, allegations of corruption and also to a low rate of return on investments that has bee substantially below market rates and inflation. This has give rise to a negative rate of accumulation over a number of years, although the situation has improved. The low esteem has in turn made compliance more difficult and even to worker-pressure to withdraw from membership. In such an environment of suspicion a 'take-your-money-and-run' concept is understandable.

16.7. Social security principles are not widely known in Indonesia and, in particular, the social insurance principle of shared risk. While there may be suspicion of income transference from richer to less well paid, it is hoped that pooling of risk and income transfer between generations will be more readily accepted.

16.8. Jamsostek's administrative capacity, though limited, can be improved and the institution has not benefited from the division of responsibility under which policy and operational control is with the Department of Manpower and financial control is with the Ministry of Finance. No national pension scheme can be administered without an effective system for the collection of workers' contributions. The present arrangement with its division of responsibility between Jamsostek and the Labour Inspectorate shows very poor returns and needs a major review aimed at the creation of adequately complemented teams of well trained inspectors in every area of the country. It would be very difficult to mantain pension records without a modern computerized system with a national database. Both these reforms will require the investment of capital and the training of those staff without the necessary skills. The management of a reformed system will call for new management skills, methods and techniques that can only be acquired after a comprehensive programme of training. New management and financial information systems need to be created to provide managers with reliable statistics and other information. These changes will involve long-term projects and it cannot be realistically expected that all systems will be in place for several years. The important and urgent question for Indonesia is how and when to start the process of reform. (See also recommendations on compliance and on human resource development in the Project Report – Part 1).

16.9. There are presently only around 400 employers operating private or occupational schemes in Indonesia and while it would be detrimental to the development of any planned social insurance pension scheme to permit opting (or contracting) out of the national scheme, there should be provision for properly regulated, private pension plans to operate in a voluntary, third tier for any employers or individuals who wished to supplement eventual pensions entitlement for their workers or for themselves by purchasing additional pension rights. Experience in many countries indicates that the existence of a national pension scheme actually generates interest in supplementary provision as individuals and groups are stimulated to think about proper provision for old age. The same trend applies also to other private insurance and it would thus be anticipated that the development of social health insurance would generate interest in supplementary, private provision. But, in order to leave room for this development of the private market, it follows that the level of contribution to the national compulsory scheme should not be too high.

16.10. With advance funding of social insurance schemes account needs to be taken of the strength of the capital market available for the investment of social insurance funds derived from contributions. The actuarial report[2] suggests that the capital market in Indonesia is not capable of providing sufficient investment instruments for risk diversification and that provision might be made for some investments to be placed overseas.

The terms of reference for the pension study did not require options to be considered for development of the public sector pension schemes. However, there are believed to be potential funding problems building up for these schemes and, in the meantime there may be advantages in considering the possible harmonization of the pension provisions in case a future option might be to develop a unified national pension scheme covering the public as well as the private sector. There would, of course be benefits to such a course of action, including the portability of pension entitlement for workers moving between the public and private sectors, leading to greater mobility in the workforce and a greater sense of solidarity.

16.11. The above considerations lead to the conclusion that the development of a national social insurance pension scheme for Indonesia should be phased over a number of years. This would enable the capacity of Jamsostek to be built up together with the appreciation of the concepts are widened. Thus initially a modest, simple scheme should be devised that covers as many workers as possible, costed and promoted to illustrate the impact on social protection and to assess the level of consensus.

16.12. The ILO *recommends* a defined benefit scheme, which would provide a predictable benefit, taking advantage of pooling principles of social insurance and providing reasonable levels of benefit – on retirement, for invalidity or death – within a few years of the schemes inception.

16.13. The amount of pension payable in defined benefit schemes is usually related to the length of insurance and earnings-related pensions are also usually based additionally on the average reference earnings. Most schemes also stipulate a prescribed bandwidth (between a minimum pension and a benefit 'ceiling') within which pensions are payable. In Indonesia it is tempting to relate this bandwidth to the national minimum wage. However, it is understood that the minimum wage is related to a periodic calculation of 'minimum living needs' Kebutuhan Hidup Minimum (KHM) and that this relationship is under review. The reasons for this include consideration of the view that a 'national minimum wage' should be related to an entry wage – the level of earnings for school leavers or persons entering employment for the first time – not to a living wage for those who have family responsibilities as bread-winners. Thus is would be preferable to use the national average wage as a reference point for determining minimum and maximum pensions payable to any particular claimant. However, reference to the 'minimum wage' might still be necessary when prescribing the contribution liability and reference to KHM might be necessary should any future social assistance scheme be planned that would require comparison with basic living or subsistence standards.

16.14. The elements of a defined benefit scheme for Indonesia could, therefore, be:

- **Coverage:**
  - all workers except those covered by TASPEN or ASABRI; and
  - possibly also self-employed persons with a place of business, having employees, or following a prescribed occupation.

Alternatively consideration could be given to including the self-employed on a voluntary basis or compulsorily in a later stage, since enforcement of liability for this group is potentially problematical.

[2] Report to the Government of the financing and investment of Jamsostek 2002.

- **Contribution liability:**
  - the current level of contribution (5.7 per cent +0.3 per cent) could be applied initially to pay for the new scheme, thus all workers with earnings above the minimum wage (and prescribed self-employed persons) would pay earnings-related contributions (on prescribed insurable gross earnings) of 6 per cent (4 per cent for employers & 2 per cent for workers – 6 per cent for self-employed). The contribution rate will be reviewed regularly in order to ensure the long-term financial equilibrium;
  - there could be a contribution ceiling of Rp. 2m (to be reviewed in the light of increases in wages indices over time; and
  - part-time workers and workers earning at or below the minimum wage could be covered by a flat-rate contribution of Rp. 40,000 (Rp. 20,000 payable by the worker and Rp. 20,000 by the employer – Rp. 40,000 payable by low-paid self-employed persons) with the employer paying an additional sum of Rp. 20,000 for every full-time worker as a subsidy to the scheme.

- **Pension age:**
  - the recommended age for entitlement to old age pension is 60 years with no retirement condition; or
  - age 55 – 60 years subject to retirement from employment with earnings at or above the level of 60 per cent of the minimum wage (or a lower percentage of the national average wage).

- **Qualifying conditions:**
  - contributions would need to be paid or credited (see Paragraph 9.14) for 180 months (15 years) with at least 120 contributions actually paid;
  - 180 months active membership would give rise to a pension of 25 per cent of average insurable earnings;
  - each additional month might give rise to an additional 1 per cent;
  - minimum pension would be 60 per cent of the minimum wage (or a lower percentage of the national average wage);
  - 'average insurable earnings' would relate to earnings over the period of insured membership, increased by reference to a national average earnings index. Alternatively the average could be based on final 3 years' earnings;
  - a benefit ceiling based on 3 times average earnings (i.e. currently Rp.1.5m);
  - special qualifying conditions could apply to provident fund members who decide, within a prescribed period, to convert their provident fund accounts wholly or partially into months of pensionable employment. The divisor should equal the average monthly contribution paid by the insured person in the last year of provident fund membership; and
  - insured persons unable to qualify for a pension, even with the conversion of their provident fund membership, may be entitled to special credits if they would not be able to satisfy the 180 months qualifying test. Alternatively there could be provision for a lump sum grant to be payable.

- **Invalidity pension:**

An invalidity pension would be payable to members who are rendered permanently and totally incapable of work prior to reaching minimum retirement age subject to:

- a qualifying period of 60 months insurable employment, including at least 36 contributions actually paid and at least 12 contributions having been paid in the 24 months immediately preceding the commencement of invalidity;

- there could be credits (see Paragraph 9.14) warded in respect of temporary incapacity or child care;

- invalidity pension would be payable until age 60 or earlier death or cessation of disability; and

- a full retirement pension would be payable at pension age based on 60 months qualification with additional amounts based on 0.75 month for each month between the date of onset of invalidity and reaching 60 years of age.

- **Survivors' pensions:**

Survivors' pension would be payable in respect of prescribed family members who were wholly or mainly dependent on the deceased at the time of his or her death in accordance with a prescribed priority of dependency for example:

- widow (or widower) 60 per cent of the deceased's age pension; and
- 10 per cent for each child up to school leaving age, or marriage.

16.15. Under the defined-benefit social insurance scheme, unlike the Provident Fund, the benefit provision is explicitly stipulated in terms of the qualifying conditions and the pension formula. Under this option, if the qualifying condition for the receipt of a pension is met, the amount of pension is calculated as a certain percentage (called the benefit rate) of the reference salary. The benefit rate depends on the number of years of contributions. For a worker with 30 years of contributions, the formula produces 40 per cent of benefit rate, which would meet the standards regarded as reasonable in an international context, as set out in the International Labour Convention No. 102 concerning Minimum Standards of Social Security. If the pension thus calculated falls below the minimum pension which is set at 60 per cent of the minimum wage of the current year, then the amount is increased to the minimum pension. The following table shows the expected benefit by different salary levels and contribution periods.

Table 2. Estimated benefits under the defined-benefit option in 2001 prices

Workers with average wage (lifetime indexed average earnings are Rp. 500,000 per month**)**		
Years of contribution	**Benefit rate (%)**	**Pension amount per month**
10	not eligible	(cash lump sum only)
15	25 (30*)	Rp. 150,000 guaranteed minimum(*)
20	30	Rp. 150,000
25	35	Rp. 175,000
30	40	Rp. 200,000
Minimum wage earners (lifetime indexed average earnings are Rp.250,000 per month)		
Years of contribution	**Benefit rate (%)**	**Pension amount per month**
10	not eligible	(cash lump sum only)
15	25 (60*)	Rp. 150,000 guaranteed minimum (*)
20	30 (60)	Rp. 150,000 guaranteed minimum (*)
25	35 (60)	Rp. 150,000 guaranteed minimum(*)
30	40 (60)	Rp. 150,000 guaranteed minimum(*)

16.16. The minimum pension of Rp. 150,000 per month is provided to workers who have been contributing members for 15 or more years. The percentage in brackets shows the benefit rates of the minimum pension. In the case of average wage earners with 15 years contribution period, applying the pension formula would produce Rp. 125,000, which is lower than the minimum pension. Therefore, the pension is increased to Rp. 150,000.

16.17. Given the low level of the reported contributory salary, the proposed pension formula would not provide an amount significantly higher than the minimum pension. In particular, it is seen that for minimum wage earners, the pension formula always produces lower benefit rates than the minimum pension. Therefore, it is anticipated that a large number of pensioners would receive the minimum pension. Hence, the proposed design is de facto similar to a flat-rate pension with a small increment for long service or high contributions. In the absence of enforcement of inspection of the contribution base, such a design will invite a disincentive effect and may raise a further concern of compliance deterioration. If the inspection of the contributory salary remains lax, the most rational behaviour of a worker is to pay contributions for only the qualifying period (10 years) at the minimum wage.

16.18. The contribution rate that ensures the long-term financial viability of the proposed scheme should be determined in an actuarial assessment. In the absence of reliable data, a full-scale actuarial assessment is difficult to carry out. Nevertheless, we shall attempt to make crude evaluation based on a steady state analysis using the total population data. Let us consider the pay-as-you-go (PAYG) cost rate, which is defined as the expenditure expressed as a percentage of the total contributory wage. This is regarded as the contribution rate needed for payment of expenditure in the current year if costs were to be financed solely from the current contribution income. The PAYG cost rate is further expressed as a product of two factors. The first factor is “the demographic dependency ratio”, defined by the number of pensioners as a percentage of the covered population; and, the second factor is “the average replacement ratio”, defined by the average pension as a percentage of the average contributory earnings. According to the population projection result (intermediate scenario), the demographic dependency ratio of the total population (pension age 60 years) is expected to be 29.1 per cent in 2030, 47.3 per cent in 2050 and 51.3 per cent in 2070. Taking a 30 per cent of benefit rate as a rough proxy for the average replacement ratio and assuming that the cost of invalidity and survivors’ pensions are around 20 percent of the old-age pensions cost, the estimated PAYG cost rate would be 10.5 per cent in 2030, 17.0 per cent in 2050 and 18.5 per cent in 2070. (These are net rates for benefit payment. In practice, administrative expenses should be added.) These preliminary results suggest that the current contribution rate of 6 per cent would probably not sufficient for ensuring the prescribed benefits, although the final analysis needs to take into account the level of advance funding and the development paths of income and expenditure in the long run.

17. Annex 1

Jamsostek retirement programme – Overview

Jamsostek		
Program	**Retirement program**	**Life program**
Type of scheme	Provident fund	Death benefits scheme
Current law	Provident fund benefits in Government Regulation No. 14/1993	Death benefits provisions in Government Regulation No. 14/1993
Description	Provides an age retirement program and for compulsory early retirement as a result of invalidity or unemployment	This program covers loss of life during and within the work area or due to illness or natural causes
Coverage	Compulsory for all workplaces with at least 10 employees or a monthly payroll of Rp 1 million	Compulsory for all workplaces with at least 10 employees or a monthly payroll of Rp 1 million
Contributions	Employer – 3.7% of gross wages Employee – 2% of gross wages	Employer – 0.3% of gross wages
Benefits	Provides lump sum of combined contributions plus interest or periodical payments for the following life events of the member: ➢ at age 55 years, ➢ total permanent disability, ➢ benefits to the surviving spouse or children in the event of death of member before age 55 years; ➢ when membership ceases due to unemployment after at least 5 years membership	Provision of payments for: ➢ funeral expenses of Rp 600,000, ➢ death allowance of Rp 3,000,000

17.1. Annex 2

Terms of reference for pensions study

Reference: - Project Document, Restructuring of the Social Security in Indonesia, INS/00/M04/NET

The Pensions Study will entail the following steps:

- data collection to establish a profile of existing Jamsostek Provident Fund (JHT) members who would be covered by a contributory pension scheme with an analysis of their age, sex, earnings and length of insurable employment;
- consultation with representatives of employers and workers (in particular JHT members) to determine priority social protection needs and concerns in order to design the framework of a pension scheme;
- an actuarial valuation of the provident fund to determine its assets and liabilities and to identify weaknesses in its financial structure;
- assessment of the economic and financial background to determine the likely financial development of the pension fund established by the scheme;
- consideration of the scope of the scheme and its relationship with existing schemes including those for public servants and private and employer based schemes;
- establishing an actuarial model with different design options and taking into account different economic scenarios;
- determining the most suitable financial structure for the scheme including the contribution rates, the investment policy and degree of advanced funding;
- designing the transitional arrangements for the conversion from the provident fund;
- identifying the administrative implications and formulating proposals to address; and
- preparation of reports.

17.2. Annex 3

Meetings with those concerned with providing retirement benefits

No.	Date	Representative	Subject	Location
1	1-Oct-2001	Ms. Mukda Sunkool, Director ILO Jakarta Office	Project brief and introduction of new consultants. Information about government initiatives, workplans and priorities.	ILO Office
2	1-Oct-2001	Mr. Syami Syahrizzamzami	Jamsostek counterpart, introduction and immediate work plans	Jamsostek Head Office
3	2-Oct-2001	Mr. Isa Rachmatarwata, Director Pensions, Ministry of Finance	MOF controls of pensions funds including Jamsostek, new finance guidelines and future directions.	Ministry of Finance
4	2-Oct-2001	Mr. Agus Supriyadi, Manager Gato0t Subroto Branch of Jamsostek	Jamsostek Branch office operations and particularly work injury, contribution collection and health care	Jamsostek Branch Office
5	3-Oct-2001	Dr. Bambang Purwoko, Director of Planning and Social Security Jamsostek	Finance and investment in Jamsostek	Jamsostek Head Office
6	4-Oct-2001	Dr. Mulyani Director Jamsostek Health care programs & Dr Sylvia Achmed.	Health Care policy and processes in Jamsostek and comparisons with other Health care programs	Jamsostek Head Office
7	5-Oct-2001	Mr. Kenichi Hirose financial actuary, ILO Geneva	Debrief of study of Jamsostek investment strategy	ILO Office
8	8-Oct-2001	Ministry of Finance	Meeting cancelled due to the Security situation	
9	9-Oct-2001	Gutheng Prabowo, Ministry of Interior	Meeting postponed due to the Security situation	
10	9-Oct-2001	Dr. Bambang Purwoko, Director of Planning and Social Security Jamsostek, Mr. Herry Harlan, Mr. Syami Syahrizzamzami Jamsostek, Mr Darmanto, Depnaker Work Injury policy staff	Discussion about Work Injury insurance, Field studies in Indonesia, overseas study tours for IT staff and for commissioners.	Jamsostek Head Office
11	9-Oct-2001	Mr. Syami Syahrizzamzami, IT Assistant Manager	Arrange future meetings, study tours and information collection.	ILO office in Jamsostek Head Office
12	10-Oct-2001	Mr. Syami Syahrizzamzami, IT Assistant Manager	General discussion on customer identification and to arrange future meetings, study tours and information collection.	ILO project office in Jamsostek Head Office
13	11-Oct-2001	ILO Project team	Project meeting to discuss 6 month progress report and options for progressing project and field trip arrangements	ILO project office in Jamsostek Head Office
14	12-Oct-2001	IT Section managers Ms Amalia Artiningsih and Retno Widowati	Analysis of statistics capability and to specify the statistical requirements for the pensions modelling.	Jamsostek IT Office
15	12-Oct-2001	Prof Yaumil and members of Social Security Task force and Pres Dir. Jamsostek and ILO project staff	Discussion of progress of project and support required to complete the Task force recommendations to the President R.I.	Jakarta
16	13-Oct-2001	Project Team	Discussion and planning for field tour to Bali Province	Puri Casablanca, Jakarta
17	15-Oct-2001	Bali Jamsostek Branch office manager Mr John Keleng, Mr. Syami Syahrizzamzami, Mr Herry Harlan and ILO project team	Planning for the field tour, meetings and clarification of information requirements	Kuta Jaya, Bali
18	16-Oct-2001	DINAS Regional Director	Preparation for seminar with Dinas staff and representatives from employer and union groups	DINAS, Bali
19	16-Oct-2001	DINAS Director and 30 staff and employer and Union representatives	Seminar to provide information about social security reforms and to obtain preferences and opinions from the group	DINAS conference room, Bali
20	17-Oct-2001	DINAS Labour section MD Lastrainan, Inalayu, Putu Dibia, Ida Bagud Rai and John Keleng	Discussion about the duties of labour section including Labour Inspectors, Minimum Wage setting, Jamsostek liaison, company registration, Regional autonomy, problems and suggestions for improvements	Jamsostek Bali Branch office meeting room.

21	17-Oct-2001	Market staff from about seven stalls.	Personal interviews with informal sector at Wahati markets. Stall holders and owners selling crafts, textiles, paintings and clothing	Wahati markets, Denpasar
22	17-Oct-2001	Mr. Part owner of the showroom and of wood products factory.	Furniture showroom and craft local and export manufacturing and sales	Showroom at South Kuta
23	18-Oct-2001	Dr.	Local Health Care service provider (Puskeskmas). Representative from the local Bali hospital to discuss the health care services provided to Jamsostek members, problems and suggestions for improvement.	Jamsostek Bali Branch office meeting room
24	18-Oct-2001	DINAS	Medical officer and work injury delegates. Discussion about the processes for decision and review procedures for Work Injury and degrees of disability.	Jamsostek Bali Branch office meeting room
25	18-Oct-2001	Section managers and John Keleng	Jamsostek Branch office customer service, finance and marketing sections	Jamsostek Bali Branch office meeting room
26	18-Oct-2001	DINAS manpower section Dr. Ketut Necher, Mr Made Sutedja and support staff	Overseas Migrant workers (OMW) processes, agency registration and monitoring procedure, advertising, nomination and selection procedures for OMW,	Jamsostek Bali Branch office meeting room
27	18-Oct-2001	I. Gusti Nguram Oka	Employer representative. Discussions about existing social security provisions and future options and their impact on employers	Jamsostek Bali Branch office meeting room
28	18-Oct-2001	Mr John Keleng, IT staff	Bali Branch Office IT, Claims processing, SIPT computer application, accounts. Processes, problems and future improvements.	Jamsostek Bali Branch office meeting room
29	19-Oct-2001	Project team, Messrs Mike Smith, David Preston, David Gent and John Angelini	Review of information gained and strategy for study papers	Kuta Jaya meeting area
30	22-Oct-2001	GTZ	Good governance project and national numbering and personal identity system	ILO project office Depnaker
31	22-Oct-2001	Dr. Bambang Purwoko, Director of Planning and Social Security Jamsostek	Jamsostek organization, proposed legislative changes, presentation to task force and pensions scheme	Jamsostek Head Office
32	23-Oct-2001	Dr. Bambang Purwoko, Director of Planning and Social Security Jamsostek	Proposed changes to Work Injury insurance scheme	ILO project office in Jamsostek Head Office
33	23-Oct-2001	Mr. Syami Syahrizzamzami, IT Assistant Manager	Discussion about Dinas, Regional Autonomy, study tours and MIS.	ILO project office in Jamsostek Head Office
34	26-Oct-2001	Mr. Alan Boulton, Ms Mukda Sunkool, ILO Director and Office Manager	Process for presentation of Project report to Social Security Task Force	ILO Office
35	26-Oct-2001	Mr. Didi Achtijat, Executive Director of Operations TASPEN	Overview of the operations of TASPEN, the civil service retirement pensions and life insurance agency	TASPEN Offices Cempaka Putih, Jakarta
36	29-Oct-2001	Presidential Task Force for Social Security Reform	Presentation on ILO project and benefit studies	Vie Presidential Offices
37	29-Oct-2001	Mr. Imam Soebari and Mr. Pungky Widiatmoko Work Injury Directorate, Depnaker	Work Injury Directorate in Depnaker	Depnaker Head Office, Jakarta
38	30-Oct-2001	Mr. Rafianto Taxation IT Division	Ministry of Finance, Taxation Collectors, IT, Processes, support data.	Pajak Offices, Jl Gatot Subroto
39	30-Oct-2001	Mr. Clive Bailey Senior Social Security Specialist ILO Geneva	Project progress, pensions policy and feedback report	ILO project office in Jamsostek Head Office

17.3. Annex 4

Monthly minimum wages by province, year 2000

No.	Local province/region	Minimum wage (Rp)	
1	Daerah Istimewa Aceh	265,000	
2	Sumatera Utara	254,000	
3	Sumatera Barat	200,000	
4	Riau Di Luar Batam - Tk. I. Riau	250,700	
5	Riau Di Luar Batam - Tk. Kepulauan	300,000	
6	Riau - Batam	350,000	Highest
7	Jambi	173,000	Lowest
8	Sumatera Selatan - Daratan	190,000	
9	Sumatera Selatan - Kepulauan	209,000	
10	Bengkulu	173,000	Lowest
11	Lampung	192,000	
12	DKI Jakarta	286,000	
13	Jawa Barat – Wilayah I	270,000	
14	Jawa Barat – Wilayah II	245,000	
15	Jawa Barat – Wilayah III	230,000	
16	Jawa Barat – Wilayah IV	225,000	
17	Jawa Tengah	185,000	
18	Daerah Istimewa Yogyakarta	194,500	
19	Jawa Timur - Wilayah I	236,000	
20	Jawa Timur - Wilayah II	212,000	
21	Jawa Timur - Wilayah III	208,000	
22	Jawa Timur - Wilayah IV	202,000	
23	Bali – Kab. Badung & Kodya Denpasar	214,300	
24	Bali – Lainnya	190,300	
25	Nusa Tenggara Barat	180,000	
26	Nusa Tenggara Timur	184,000	
27	Kalimantan Barat	228,000	
28	Kalimantan Tengah	285,000	
29	Kalimantan Selatan	200,000	
30	Kalimantan Timur	233,000	
31	Sulawesi Utara	186,000	
32	Sulawesi Tengah	203,000	
33	Sulawesi Selatan	200,000	
34	Sulawesi Tenggara	210,000	
35	Maluku	180,000	
36	Irian Jaya	315,000	

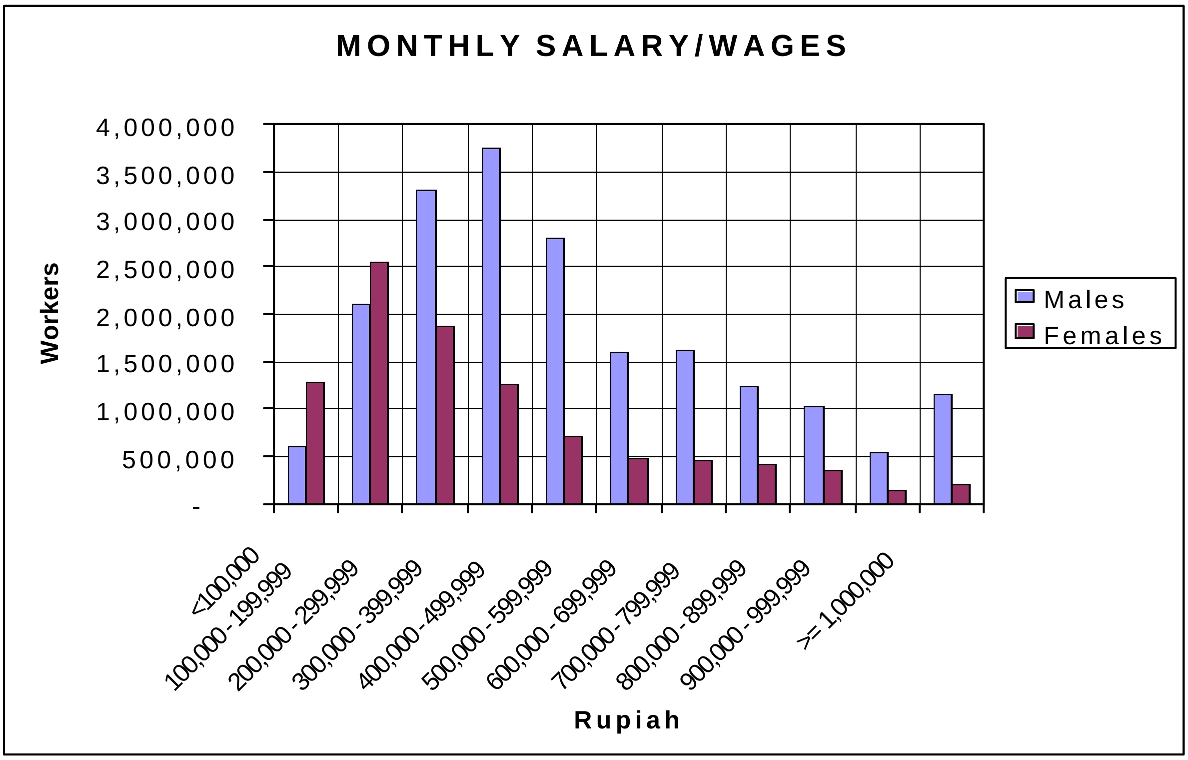
Source: Statistik Upah Triwulanan, Triwulan II Tahun 2000.

17.4. Annex 5

Monthly salary / wages – Urban and rural formal sector

Salary/Wages	Males	Females
<100,000	613,902	1,274,041
100,000 - 199,999	2,102,231	2,554,905
200,000 - 299,999	3,322,169	1,873,592
300,000 - 399,999	3,765,106	1,268,492
400,000 - 499,999	2,803,574	708,409
500,000 - 599,999	1,604,603	475,677
600,000 - 699,999	1,612,200	451,876
700,000 - 799,999	1,234,045	412,810
800,000 - 899,999	1,032,876	342,271
900,000 - 999,999	543,196	139,081
>= 1,000,000	1,154,304	208,679
Total	19,788,206	9,709,833

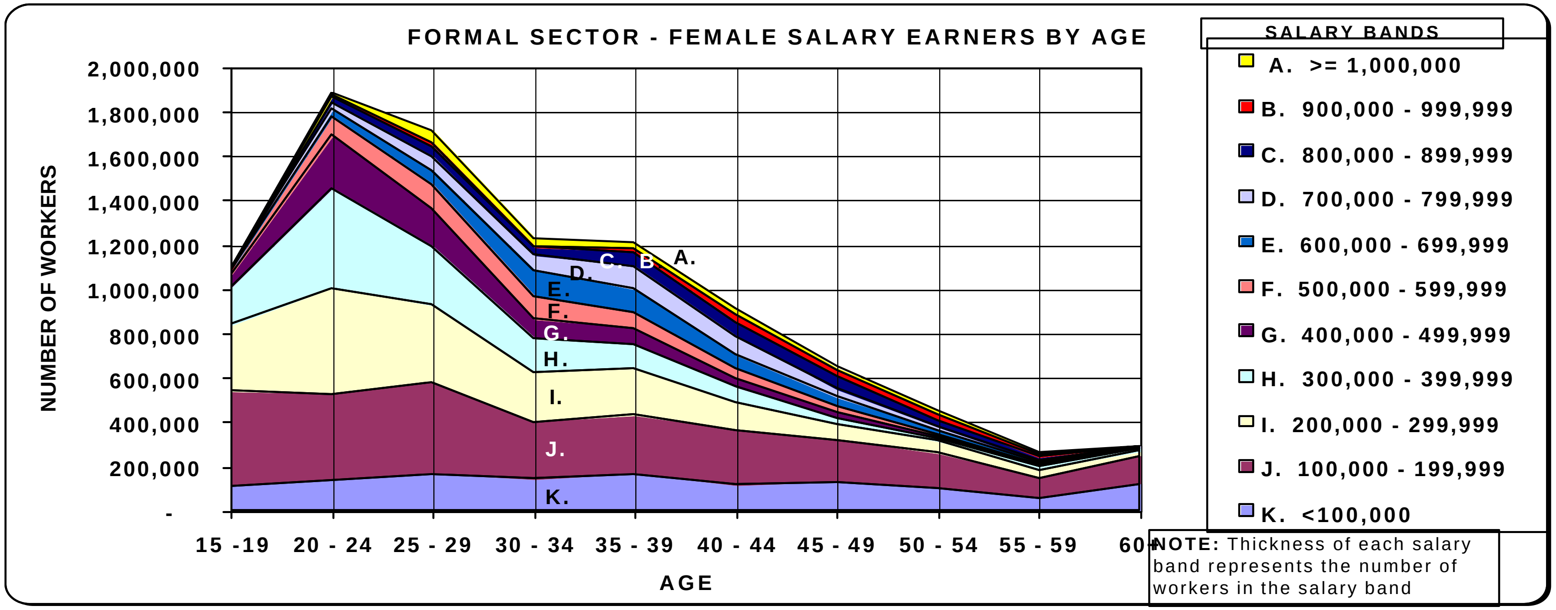
TOTAL	29,498,039



17.5. Annex 6.

Formal sector – Female salary earners by age

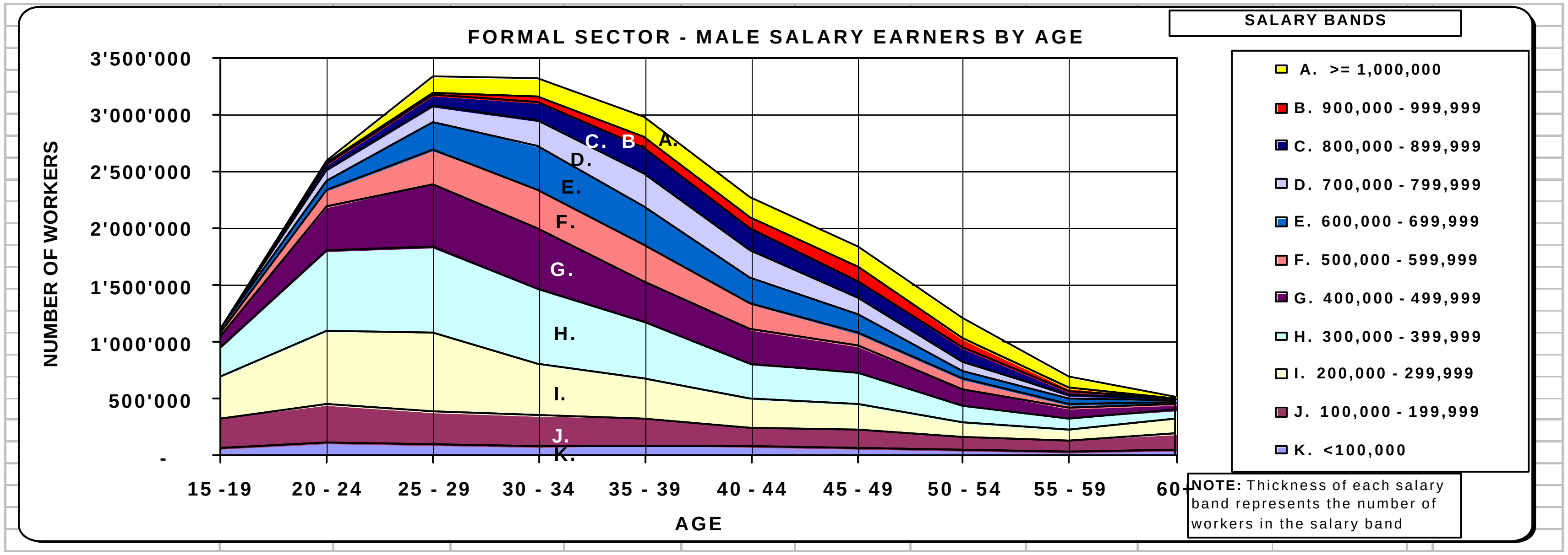
Salary	15 -19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60+	Total
K. <100,000	114,114	142,477	169,562	144,016	167,201	118,594	132,929	104,580	56,700	123,868	**1,274,041**
J. 100,000 - 199,999	426,029	385,291	413,306	257,058	267,200	245,562	187,789	156,378	93,760	122,532	**2,554,905**
I. 200,000 - 299,999	296,752	480,118	344,519	225,712	210,957	127,670	71,425	55,674	37,167	23,598	**1,873,592**
H. 300,000 - 399,999	167,738	445,744	264,706	150,907	104,774	68,729	25,421	13,519	14,701	12,253	**1,268,492**
G. 400,000 - 499,999	56,685	240,335	169,994	87,711	75,242	36,228	26,072	5,843	4,714	5,585	**708,409**
F. 500,000 - 599,999	17,758	84,977	110,993	102,074	71,640	46,664	28,052	11,382	2,137	-	**475,677**
E. 600,000 - 699,999	2,389	33,556	64,377	118,810	103,305	58,250	41,835	18,247	11,107	-	**451,876**
D. 700,000 - 799,999	-	32,950	63,433	67,456	101,196	85,484	36,068	14,638	5,823	5,762	**412,810**
C. 800,000 - 899,999	329	25,570	45,297	36,464	66,338	63,244	57,331	27,910	18,684	1,104	**342,271**
B. 900,000 - 999,999	2,098	2,179	14,139	5,820	18,668	32,324	26,329	26,625	10,899	-	**139,081**
A. >= 1,000,000	2,124	13,956	57,741	31,635	26,609	32,636	14,798	20,411	7,432	1,337	**208,679**
Total	**1,086,016**	**1,887,153**	**1,718,067**	**1,227,663**	**1,213,130**	**915,385**	**648,049**	**455,207**	**263,124**	**296,039**	**9,709,833**



17.6. Annex 7

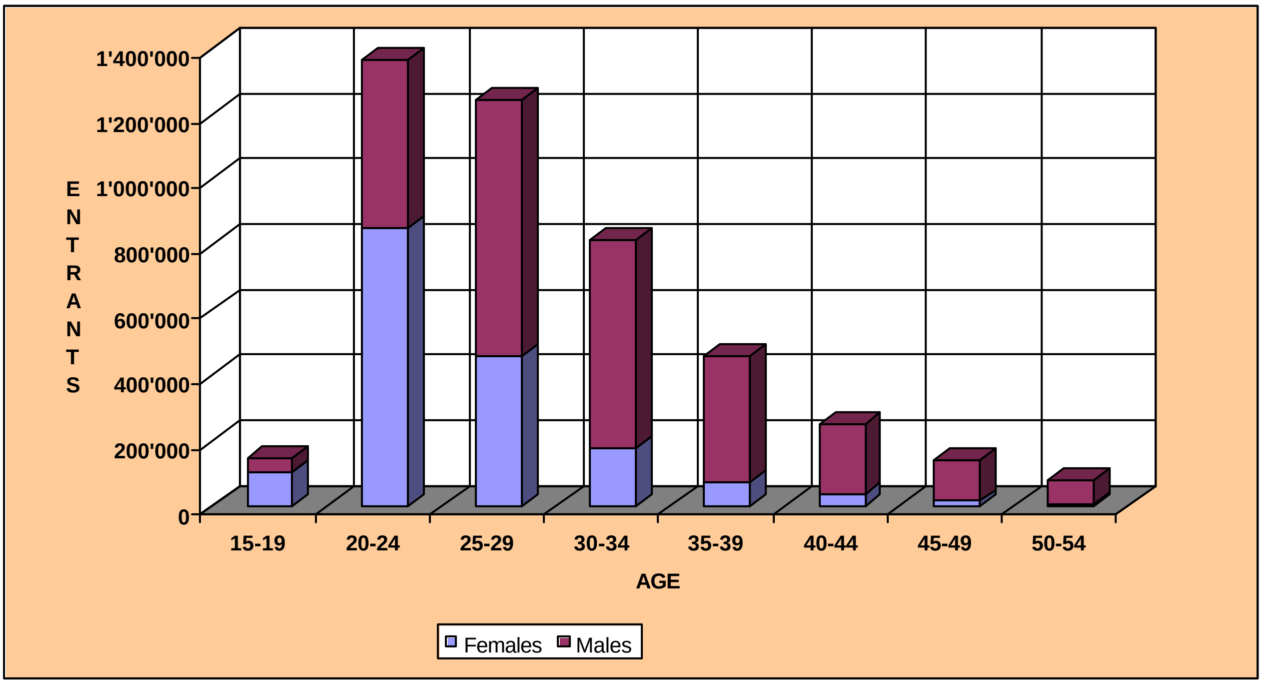
Formal sector – Male salary earners by age

Salary	15 -19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60+		Total
K. <100,000	54,843	96,962	95,235	66,013	79,875	64,787	55,113	35,730	26,829	38,515		**613,902**
J. 100,000 - 199,999	262,969	341,704	283,453	273,148	238,478	170,908	169,082	122,996	94,525	144,968		**2,102,231**
I. 200,000 - 299,999	365,514	644,950	692,120	452,988	349,702	249,596	223,090	125,735	88,341	130,133		**3,322,169**
H. 300,000 - 399,999	251,589	701,587	747,819	662,050	496,386	303,278	272,115	149,604	102,214	78,464		**3,765,106**
G. 400,000 - 499,999	110,342	389,139	561,440	539,992	364,310	312,554	233,048	148,377	93,839	50,533		**2,803,574**
F. 500,000 - 599,999	26,171	142,333	294,007	342,374	320,447	224,465	114,665	87,968	40,753	11,420		**1,604,603**
E. 600,000 - 699,999	28,424	98,112	246,266	368,772	341,702	227,486	162,796	64,075	50,012	24,555		**1,612,200**
D. 700,000 - 799,999	7,442	89,611	137,637	229,658	275,254	236,842	149,040	77,087	22,493	8,981		**1,234,045**
C. 800,000 - 899,999	-	40,167	102,491	156,706	226,927	196,734	145,763	123,406	33,795	6,887		**1,032,876**
B. 900,000 - 999,999	1,323	12,047	27,066	60,134	92,934	95,839	126,193	87,961	34,929	4,770		**543,196**
A. >= 1,000,000	1,323	23,736	130,980	156,664	186,477	187,132	176,341	180,267	97,147	14,237		**1,154,304**
Total	**1,109,940**	**2,580,348**	**3,318,514**	**3,308,499**	**2,972,492**	**2,269,621**	**1,827,246**	**1,203,206**	**684,877**	**513,463**		**19,788,206**



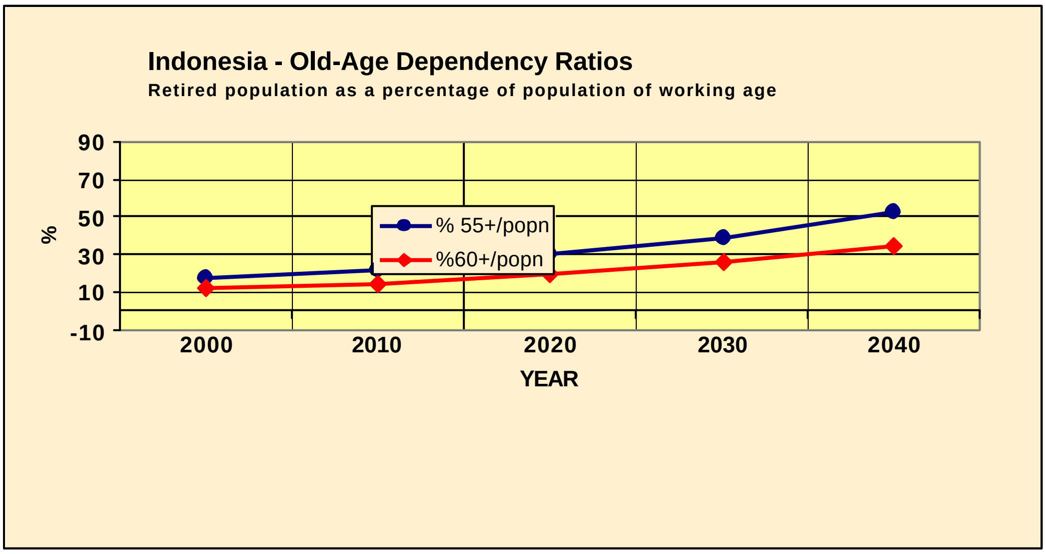
17.7. Annex 8

New entrants to Jamsostek provident fund 1998 – 2000



17.8. Annex 9

Old age dependency ratios



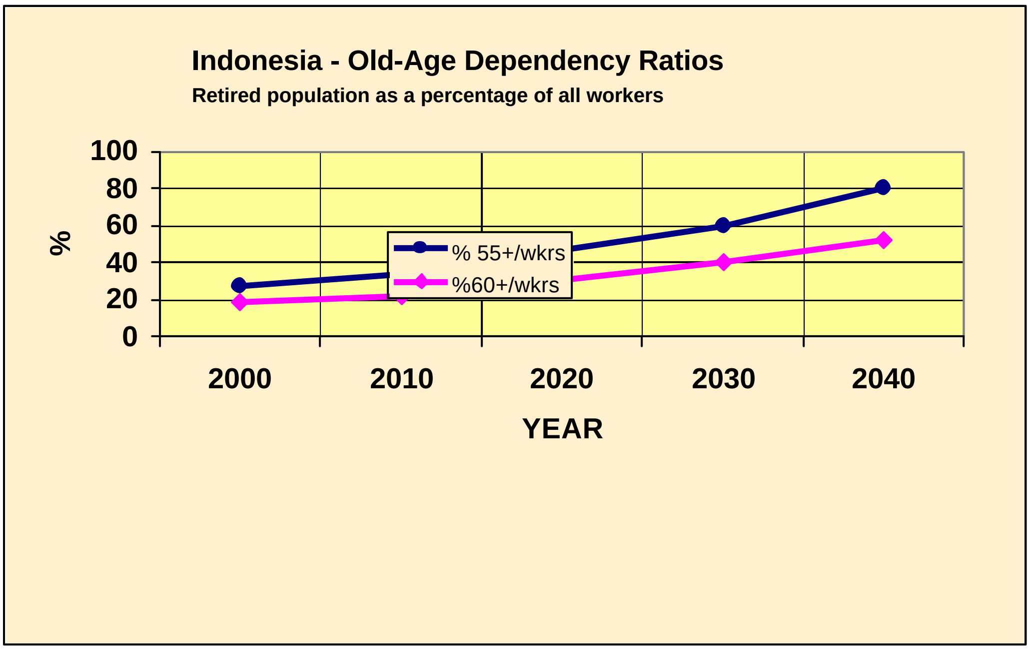
NOTES

1. Population estimates from ILO actuary Sept 2001.
2. Workers statistics from Labour Force survey August 2000.
3. Assumptions made:

(a) workers remain at 66 per cent of population (includes unemployed and those seeking work);

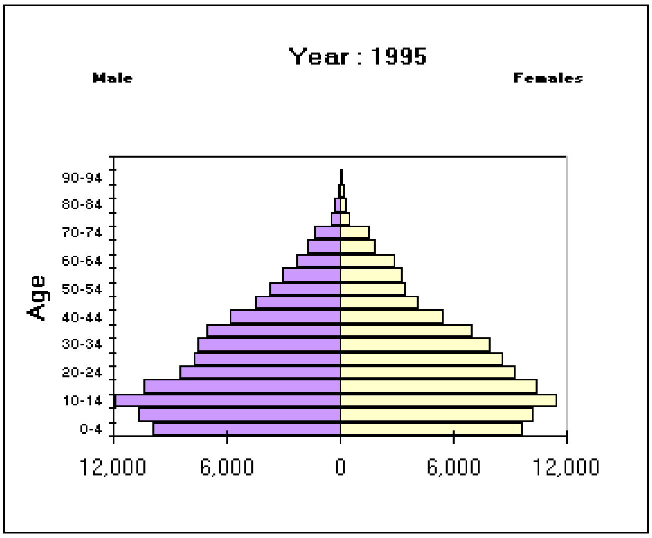
(b) female participation rates at 2000 level; and

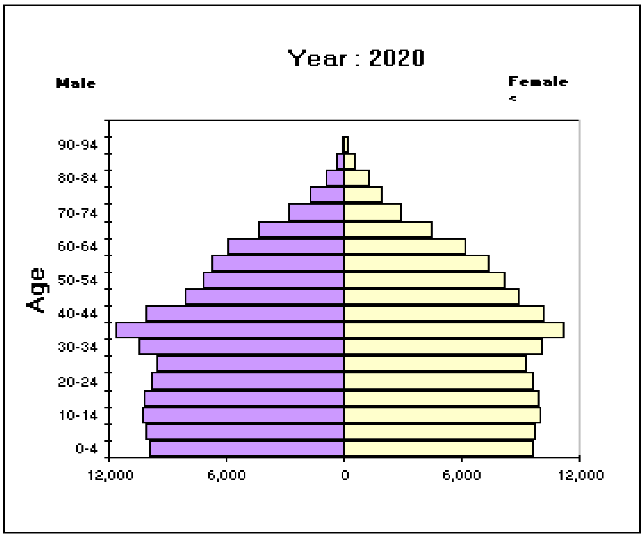
(c) youth employment rates at 2000 level.

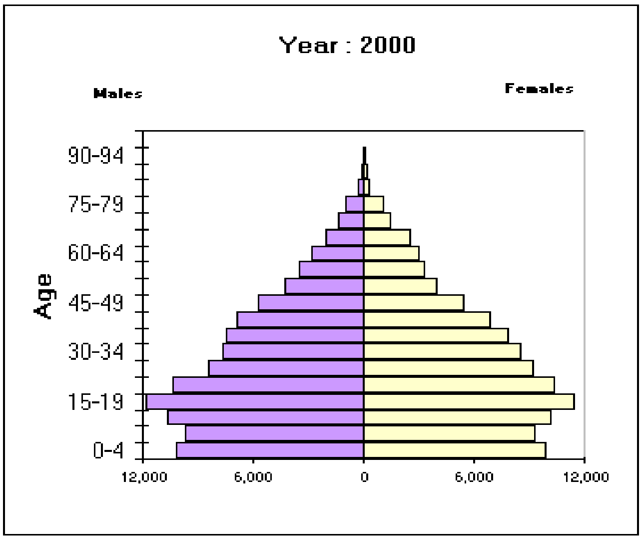


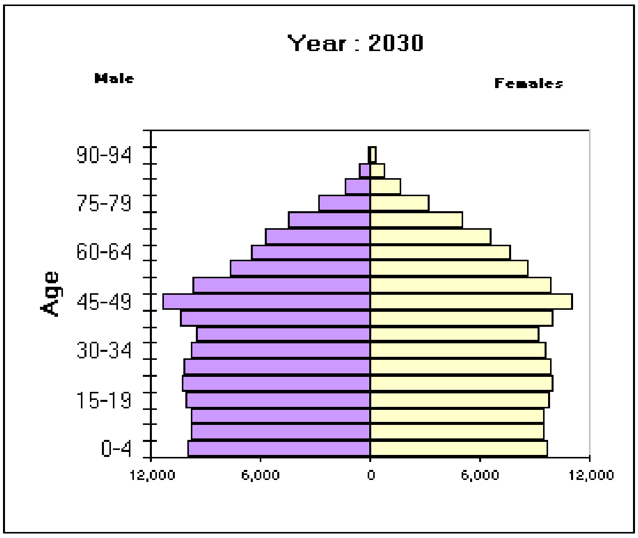
17.9. Annex 10

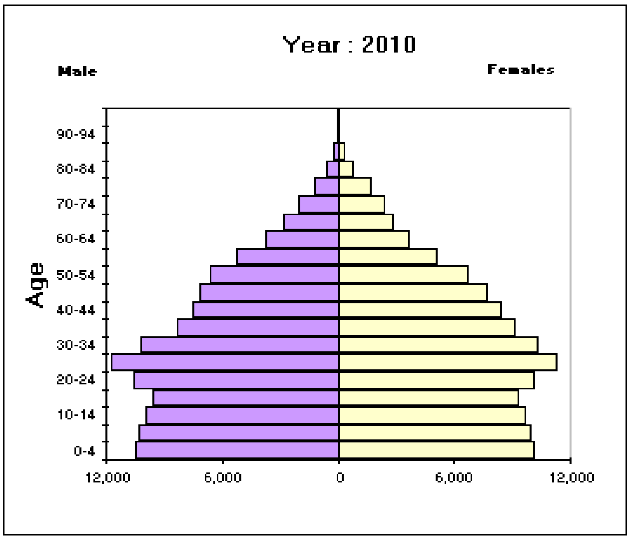
Population Projections 1998 –2040

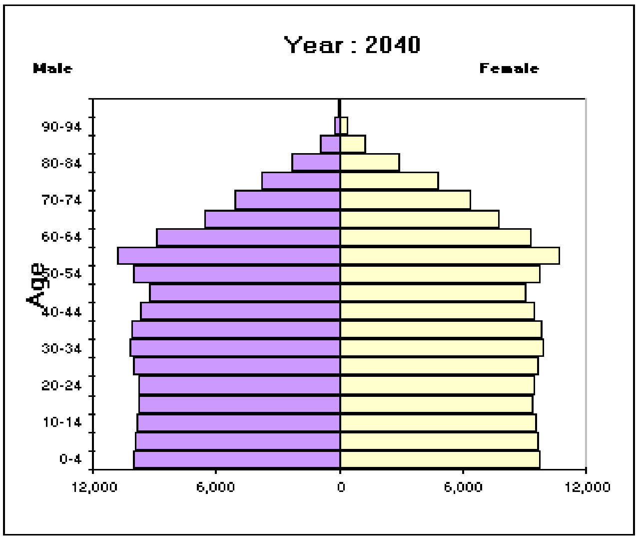








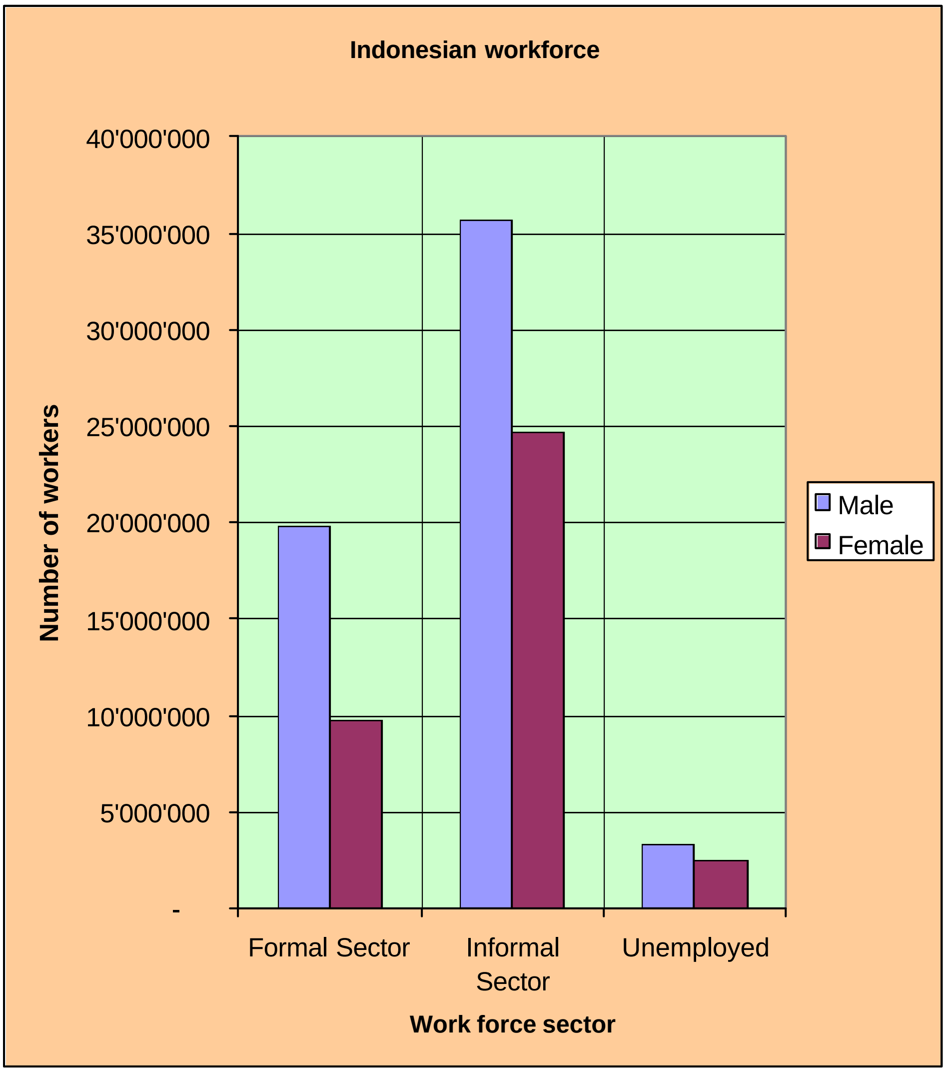




17.10. Annex 11

Workforce composition in Indonesia

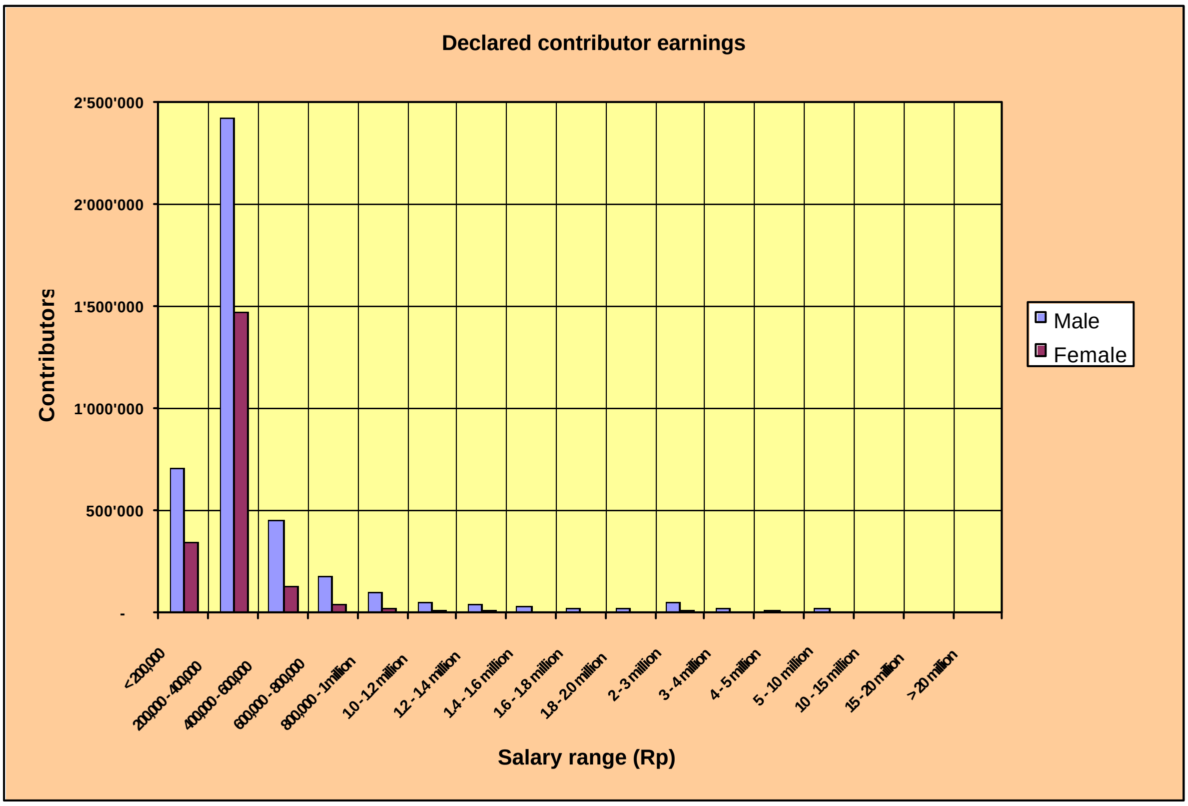
Workers	Male	Female	Total
Formal Sector	19,788,206	9,709,833	29,498,039
Informal Sector	35,650,857	24,688,834	60,339,691
Unemployed	3,340,659	2,472,572	5,813,231
Total	58,779,722	36,871,239	95,650,961



17.11. Annex 12

Average declared earnings; Jamsostek contributors 2000

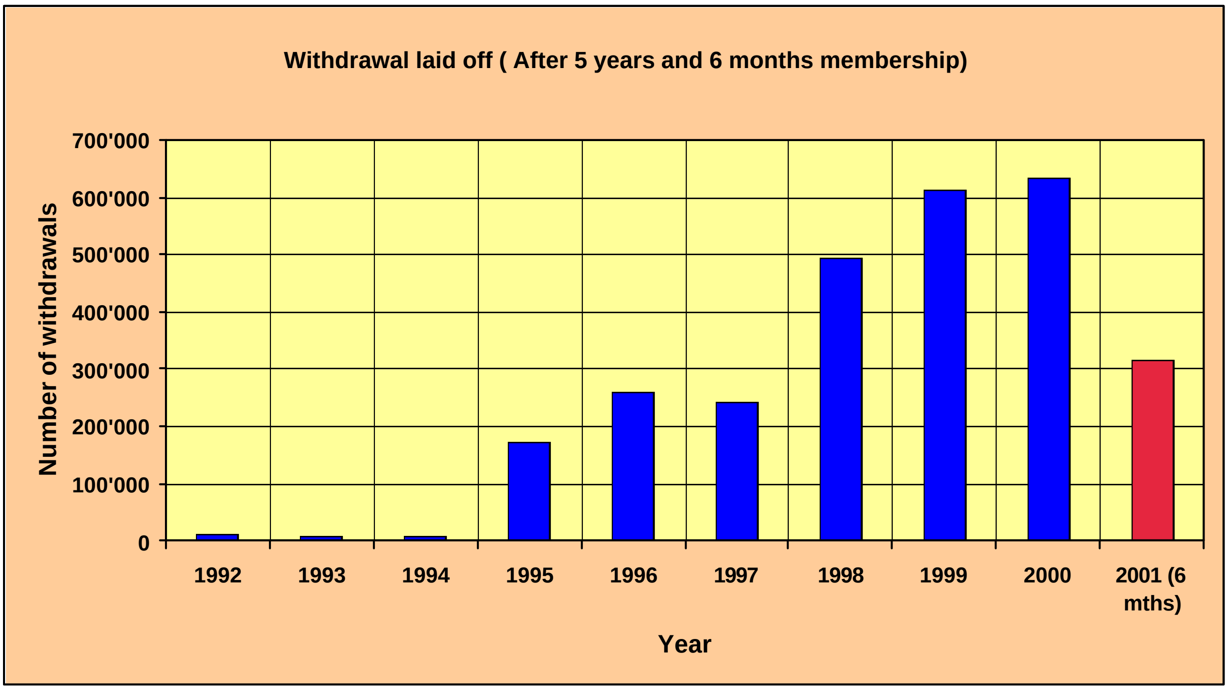
Salary Range (Rp)	Male	Female	Total
< 200,000	712,448	348,243	1,060,691
200,000 - 400,000	2,424,627	1,470,285	3,894,912
400,000 - 600,000	452,384	129,448	581,832
600,000 - 800,000	175,471	40,306	215,777
800,000 - 1million	97,347	24,045	121,392
1.0 - 1.2 million	56,497	13,533	70,030
1.2 - 1.4 million	39,180	9,330	48,510
1.4 - 1.6 million	29,746	7,782	37,528
1.6 - 1.8 million	21,673	5,909	27,582
1.8 - 2.0 million	18,258	5,591	23,849
2 - 3 million	52,589	14,319	66,908
3 - 4 million	22,940	5,823	28,763
4 - 5 million	13,053	3,075	16,128
5 - 10 million	20,932	4,217	25,149
10 - 15 million	4,442	747	5,189
15 - 20 million	1,396	207	1,603
> 20 million	1,601	238	1,839
Total	4,144,584	2,083,098	6,227,682



17.12. Annex 13

Withdrawals form Jamsostek provident fund

Reason for Withdrawal	1998	1999	2000	2001 (6 months)
Attaining Age 55	33657	33650	34085	19139
Leaving the Country	2889	2178	689	577
Deceased from Natural Causes	12081	10742	9382	6982
Deceased from Work Injury	1563	1376	1283	635
Total and Permanent Disability	351	58	38	22
Laid off (5years 6 months membership)	493131	610791	632055	316242
TOTAL	**545670**	**660794**	**679532**	**343597**



17.13. Annex 14

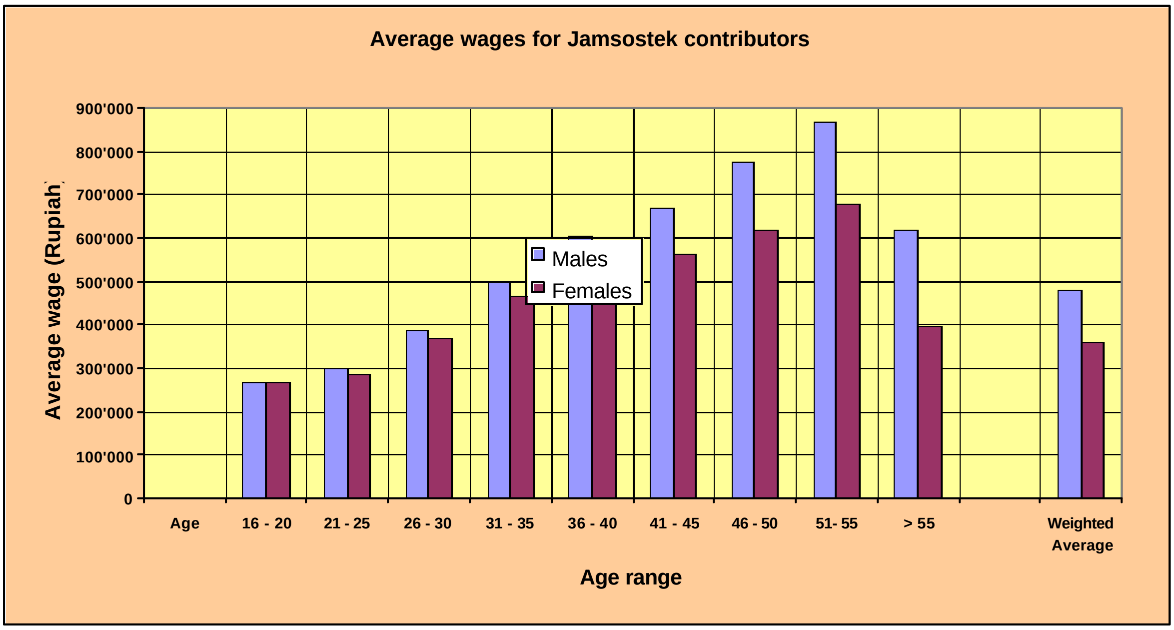
Indonesia population projections

YEAR		1995 0	2000 5	2005 10	2010 15	2015 20	2020 25	2025 30	2030 35	2035 40	2040 45
POPULATION	**Total**	194,454	208,867	223,423	237,423	250,185	261,543	271,867	281,291	289,500	296,075
	Males	96,765	103,969	111,226	118,202	124,544	130,143	135,182	139,739	143,713	147,003
	Females	97,689	104,898	112,196	119,221	125,640	131,400	136,685	141,552	145,787	149,073
GROWTH RATES	**Total**		1.41%	1.31%	1.16%	0.98%	0.84%	0.74%	0.65%	0.53%	0.40%
	Males		1.41%	1.32%	1.16%	0.98%	0.83%	0.72%	0.63%	0.52%	0.41%
	Females		1.41%	1.31%	1.16%	0.99%	0.85%	0.76%	0.67%	0.54%	0.39%
SEX RATIO (males : females)		1	1	1	1	1	1	1	1	1	1
AVERAGE AGE	**Total**	27	29	30	31	33	34	35	37	38	38
	Males	27	28	30	31	32	33	35	36	37	38
	Females	27	29	30	32	33	35	36	37	38	39
TOTAL FERTILITY RATE		3	2	2	2	2	2	2	2	2	2
LIFE EXPECTANCY AT BIRTH (E)	**Males**	62	64	66	68	69	70	71	72	72	73
	Females	65	67	69	71	72	73	74	75	76	77
INFANT MORTALITY RATE (E)	**(per 1000 births)**	75	67	59	53	49	44	41	37	31	26
POPULATION CHANGE			2,903	2,897	2,717	2,431	2,178	1,995	1,803	1,519	1,176
BIRTHS PER YEAR			4,401	4,447	4,354	4,193	4,087	4,082	4,109	4,102	4,052
DEATHS PER YEAR			1,498	1,550	1,636	1,762	1,908	2,086	2,306	2,583	2,876
NET MIGRATION PER YEAR			0	0	0	0	0	0	0	0	0
GROWTH RATE			1.41%	1.31%	1.16%	0.98%	0.84%	0.74%	0.65%	0.53%	0.40%
CRUDE BIRTH RATE			2.14%	2.02%	1.85%	1.69%	1.58%	1.51%	1.47%	1.42%	1.37%
CRUDE DEATH RATE			0.73%	0.70%	0.70%	0.71%	0.74%	0.77%	0.82%	0.90%	0.98%
NET MIGRATION RATE			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

17.14. Annex 15

Average wages for contributors to Jamsostek

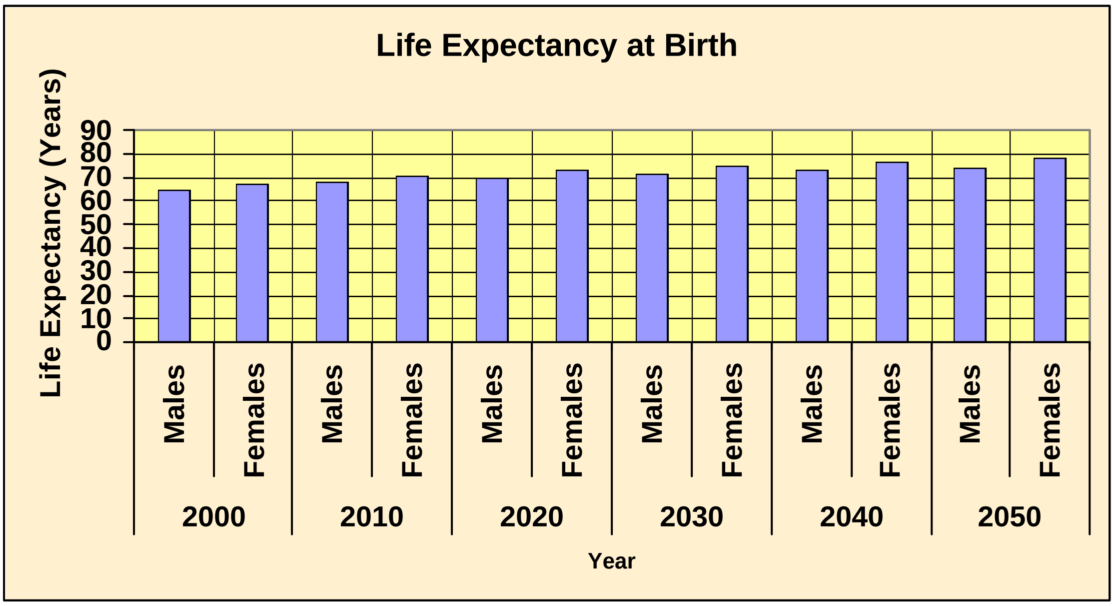
Age	Males	Females
	Average Wage	Average Wage
16 - 20	270,456	269,724
21 - 25	301,279	287,202
26 - 30	386,672	367,414
31 - 35	496,695	466,642
36 - 40	606,558	530,888
41 - 45	667,534	561,639
46 - 50	777,245	616,889
51- 55	865,796	676,802
> 55	620,884	399,010
Weighted Average	**480,489**	**358,931**

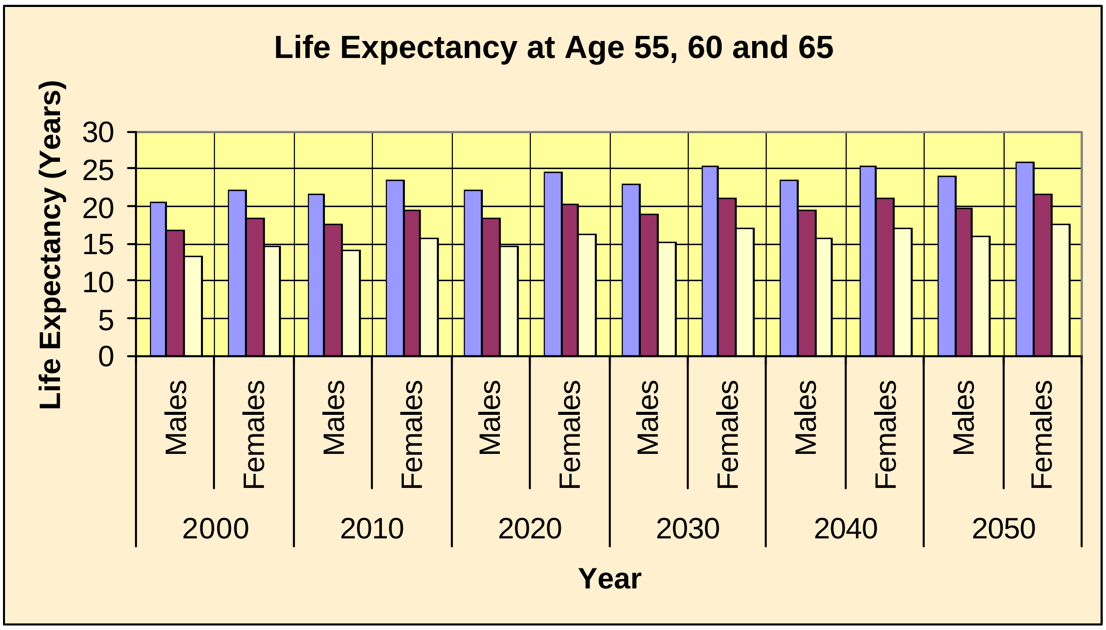


Source: Jamsostek IT Bureau October 2001 (Year 2000 Data).

17.15. Annex 16

Life expectancy





17.16. Annex 17

Taspen pension fund balance sheet 2000

Taspen pension fund
Balance sheet 2000

Part 1

Assets	
A. Investments (normal value)	
1. Promissory notes and mid term notes	0
2. Deposit on call	0
3. Fixed deposits	8,590,663,384,964
4. Bank Indonesia Certificates	0
5. Company shares	53,130,920,343
6. Bonds	73,500,000,000
7. Direct investments	148,052,842,418
8. Other Investments	34,133,809,641
Total investments	**8,899,480,957,366**
B. Current assets outside of investments	
9. Cash, Bank & clearing account	2,351,476,684
10. Fixed deposit	2,255,000,000
11. Contributions to be collected	121,620,591,860
12. Expenses paid in advance	10,307,015
13. Investment results to be collected	31,991,959,176
14. Debts to be paid by third parties	250,000,000
15. Advance payments made to third parties	0
16. Debts to be paid to third parties	0
17. Other current assets	902,824,148
18. Benefits of pensions paid in advance	1,048,429,594,449
Total current assets outside of investments	**1,207,811,753,332**
C. Operational assets	
13. Land	13,689,583,170
14. Office building	63,323,988,689
15. Official residence/home	5,390,894,890
16. Vehicles	18,000,000
17. Computers	767,927,270
18. Office Equipment	11,772,642,588
Total fixed assets	**94,963,036,607**
Accumulation of the depreciation of fixed assets	**(36,432,297,016)**
	58,530,739,591
D. Other assets	
19. Land	216,858,485,500
20. Assets being settled	3,808,217,364
21. Deferred financial responsibilities (expenses)	26,775,000
22. Long-term accounts receivable	24,389,939,500
Total other assets	**245,083,417,364**
Total assets	**10,410,906,867,653**

Debts and other liabilities	
1. Debts owed to the old age benefit program	35,540,473,568
2. Expenses that will have to be paid	1,159,430,736
3. Contributions received in advance	789,747,000,000
4. Taxes owed	1,992,832,858
5. Debts owed to contractors	140,719,845
6. Debts owed to third parties	292,360,281
7. Payment for Askes discounts	1,298,669,707
8. Debts owed to the State	949,123,149
9. Reassignment money debts	2,139,202,813
10. Government employee contribution debts	15,010,605
Total debts & other liabilities	**833,274,823,562**
A. Net assets for pensions	**9,577,632,044,090**
Total liabilities	**10,410,906,867,652**

Part 2

List of changes in net assets	
Civil servants pension fund 2000	
I. Addition	
A. Investment income	
1. Interest of promissory & mid-term notes	159,151,987
2. Interest of deposit on call	28,423,595,694
3. Interest of deposit on call	1,213,718,205,933
4. Interest of Bank Indonesia certificate	0
5. Dividend from shares	1,654,132,719
6. Interest from shares	18,305,067,362
7. Dividend from participating shares	729,209,000
8. Profits earned from releasing investments	895,119,920
9. Rental income	714,865,980
10. Part of profit (loss) of direct participation	0
11. Results of open investments	0
12. Capital gain from the sale of shares	0
Total income from investments	1,264,599,348,595
B. Increase (decrease) in investment value	**(73,249,026,212)**
C. Income from premiums	
1. Civil servant's premuim 4.75%	736,262,405,133
2. Government's pension contributions	9,757,147,192,898
3. State owned enterprise premiums	22,201,103,912
Total income from premiums	**10,515,610,701,943**
D. Other income	
1. Other income	74,325,761,444
Total other income	**74,325,761,444**
Total addition	
II. Reduction in net assets	
A. Operational expenses	
1. Pension Administration expenses	35,110,929,161
2. General and administrative expenses	34,111,798,682
3. Other operational expenses	584,899,000
4. Accumulated depreciation	0
Total operational expenses	69,807,626,843
B. Benefits paid	
1. Civil servant pensions	11,507,759,766,916
2. State owned enterprise pensions	28,621,400,332
Total benefits paid	11,536,381,167,248
Other expenses	
3. Other expenses	0
Transfers of pawning pension fund	30,979,778,759
Total reduction	**11,637,168,572,850**
Increase in net assets	**77,225,027,620**
III. Net assets available for benefits at the beginning of the period	**9,535,835,732,430**
Correction to last years net assets	(35,428,715,960)
IV. Net assets available for benefits at the end of the period	**9,577,632,044,090**

17.17. Annex 18

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