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## Eleventh actuarial valuation of the Social Security Fund and capacity building of Social Security Organisation (SOCSO) on actuarial work and investment governance

### Note on Reform and Extension Options to be assessed

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## Introduction

The objective of this note is to identify the elements of the coverage extension and reform options that need clarifications and to provide guidance on the actuarial model structure and data required for the actuarial valuation of those elements. The Annex presents the five elements of the terms of reference (11 to 15) covering these aspects of the project. They refer to Law 4 (elements 11 and 12) and Law 789 (elements 13 to 15).

The note is structured to identify for each element:

- (1) the clarifications needed by the ILO and to be discussed with SOCSO; and
- (2) the actuarial approach regarding the model and the data required for each element. In some cases, reference is made to data templates that are joined to this note.

Items of the terms of reference not covered in this note do not need any clarification and do not present any particular modeling or data requirement issue.

It is understood that demographic and financial projections of Law 4 and Law 789 are produced separately and that the projections related to Law 4 are also produced separately for the Employment Injury (EI) scheme and the Invalidity and Survivors' (IS) scheme.

The elements of the terms of reference discussed in this note can be classified in two categories, namely those concerning the **extension of the current regimes** to new groups and those which provide for a **fundamental modification to the existing regimes** (closure of Law 4 and Law 789 followed by an opening of new laws). Although it seems legitimate to analyze these two types of change, it would be unrealistic to consider implementing both at the same time. In practice, a temporal prioritization should be considered. The report will discuss the matter.

To avoid overburdening the report and in order to optimize the precision of the projections concerning the scenario of the closure of Law 4 and Law 789 followed by an opening of new laws, we recommend studying this scenario only for salaried workers in the private sector currently covered. All requests dealing with extension to new groups would be analyzed in the context of current Law 4 and Law 789.

### 1. Closure of Act 4 to new entrants and introduction of New Act (Item 11 in Terms of Reference)

#### To be clarified:

- 11 a) Concept of **New entrants**: do new entrants also include reentrants who registered before the implementation of the New Act? It is suggested not to include reentrants for sake of simplicity in the modeling of the cost estimate.

An alternative transition mechanism between Act 4 and a new Act could be contemplated for the employment injury scheme. The new Act would apply to all accidents (not only those of new entrants) occurring after implementation of the new Act. This would simplify the claims administration as only one set of rules would



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apply to all cases a few years after implementation. The same alternative could be contemplated to the IS for invalidity and survivors' benefits. Please make sure whether the same alternative to the IS for invalidity and survivors' benefit should be carried out or not.

- 11 b) i **Deductions to the Employees' provident Fund:** we understand that the pension paid by the EI scheme will be reduced by a contribution to be transferred to the Provident Fund. SOCSO's confirmation of this interpretation is needed as well as the formula for calculation of that contribution. Some other key questions are:
1. Would the contribution be based on the reference salary used for the calculation of pension or the pension amount paid by the EI scheme?
  2. In case of partial disablement, will the contribution be proportional to the degree of disablement? If this is the case, this would be implicitly done if the contribution deduction is on the pension as opposed to the reference salary.
  3. If the contribution is proportional to the degree of disablement, is there any concern with the risk of inadequate protection at retirement when the injured worker cannot go back to work at all after the employment injury even if his disablement is not total?
  4. SOCSO to confirm that the contribution to the Provident Fund will be indexed in parallel with the indexing of the disablement pension. This is implicitly taken into account if the contribution is levied on the disablement pension, not on the reference salary.
- 11 b) ii Under **Survivors' Pension and Dependents' Benefit**, there is no **Option 2**: Our understanding is that the expression Option 1 is useless and could be deleted. Please confirm that there is no Option 2 to be analyzed.
- 11 b) iii **Cessation of Invalidity Grant and Lump sum payments for Permanent Disability Benefits:** does it mean that only pensions will be paid irrespective of the degree of disablement or that those lump sums will be eliminated completely including those paid to participants in the IS who do not attain the eligibility requirements (15 years of contribution)?
- 11 b) iv **Schedule of injuries:** is this part of the new Act only or should this change be also considered in the current Act?
- 11 b) v **Maximum pensions for EI and IS:** is this part of the new Act only or should this change be also considered in the current Act?
- 11 b) vi **Abolishment of reversion in survivors' pensions:** is this part of the new Act only or should this change be also considered in the current Act?
- 11 b) vii **Reduction of compensation rate for subsequent injuries:** is this part of the new Act only or should this change be also considered in the current Act?

- 11 c) **Differential contribution rates by industry for the EI under the new Act:** determination of the industry categories to be used. Would they be those used in Table 4 of Statistical reports in financial statements or would they be those listed in item 13 of the TORs discussed below for the Self-Employed under Act 789? Is there a correspondence table between the two groupings?

It would be useful to understand the reasons SOCSO are considering this scenario (closing Act 4 and implementing a new Act). Is it to correct any overcompensation problems? Are there any analyses documenting this phenomenon or are the concerns about current legislation based on theoretical considerations only?

### **Modeling approach and data requests**

- 11 b) **New entrants**

*Model:* The projected active population would be split into two parts: those registered before the date of implementation of a new law and those registering from that date, assuming that SOCSO agrees with ILO's suggestion on definition of new entrants.

*Data:* No specific data requirement as SOCSO has been asked to provide data on new entrants and reentrants in the first batch of requests. The data on contributors' flow provided for the 10<sup>th</sup> valuation should be improved to display new entrants and reentrants separately. See file "Insured&Earnings(14-11-15) Active ContFlow SalDistEIS SalDistIS Den\_17Feb2016.xlsx".

- 11 b) iv **Revised Schedule of injuries**

*Model:* no development is needed. An analysis will be made to identify the impact of the new Schedule. It is understood that data requested will allow calculation of coefficient adjustments applicable to the average degree of disablement for the determination of disablement costs.

*Data:* provide the revised schedule and data on individual cases of permanent disablement claims indicating the type of injury (according to current Schedule 2), the percentage of disablement under the current schedule for the last five years and the percentage of disablement under the revised schedule. (see tab *Schedule of injury* in the Excel template)

- 11 b) v **Cases with pension above 100% of the reference salary**

*Model:* a coefficient adjustment by sex and age would be developed to adjust the average amount of new pensions in each scheme (EI and IS).

*Data:* SOCSO to provide data on individual cases whose pension is above 100% by age and sex for the last five years. (see tab *Pens. Over 100%* in the Excel template)

- 11 b) vii **Reduction in the daily rate for cases with more than one accident in one year**

*Model:* a coefficient adjustment by sex and age would be developed to adjust the average amount of new pensions in each scheme.



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*Data:* SOCSO to provide data on cases with more than one accident in one year by age and sex for the last five years. (see tab 2 *and more accidents* in the Excel template)

11 c) **Differential contribution rates by industry for the EI**

*Model:* risk ratios by industry would be developed based on the experience of the last 5 years. The risk ratio by industry is the cost of accidents by unit of insurable salaries over the corresponding cost for all industries. For example, if the cost of accidents for mining and quarrying is 2.5% and the average cost of accidents is 1% for all industries, the risk ratio for “mining and quarrying” would be 2.5 (2.5%/1%). For the determination of the contribution of each rate group, the administration expenditure must be considered. Options on how to do it will be discussed in the report.

*Data:* determine the industry classification to be used in collaboration with SOCSO. SOCSO to provide data on number of claims by type of benefits, cost of benefits (cash benefits for TD, lump sum PD, medical service, rehabilitation services and present value of awarded pensions for PD and Dependants of deceased workers) and insurable salaries for the last five years by industry. The number of claims should be consistent with those in the table Number of new benefit recipients in Statistical reports of Annual Reports, e.g. Table 30 in 2018. (see tabs *Industry rates* in the Excel template)

**Comments on the desirability to close Act 4 and implement new Act**

*Data:* information on contributions, benefits and accumulated savings amount by age and sex of the Provident Fund would be useful to assess the impact of the change on the social protection of workers. A template will be provided separately.

**2. To project the financial situation for the potential extension of the cover to new segments/entrants below under existing Act 4 (Item 12 in Terms of Reference)**

**To be clarified:**

- 12 b) **Homemakers/Housewives:** are they synonymous or is homemaker the male equivalent of housewife? Is there a gender issue as males seem to be excluded by definition “housewife” means a female? How does SOCSO intend to determine the salary base of participants?
- 12 d) i **Foreign workers (IS scheme):** clarify whether the contribution rate would be the same as for nationals (1 per cent equally distributed between employer and worker) and what “half the benefits” means. In principle, the contribution should not be the same for this group since benefits would be lower than for those actually covered.

Does the following description of “half the benefit” correspond to SOCSO’s view? Changes from current benefits are highlighted in **yellow**.

“Invalidity pension” is payable, subject to qualifying contribution conditions, in the event of a serious disablement or disease of a permanent nature that is incurable or

unlikely to be cured, occurring before age 60 and as a result of which an employee's earning capacity is reduced by at least two-thirds.

Subject to a credit of at least 12 contribution months over the preceding 20 months, or contributions for at least two-thirds of the period since entry subject to a minimum of 12 months, a "full pension" is payable: 25 percent of the reference wage, augmented by 0.5 percent for every 12 contribution months in excess of 12, subject to a maximum of 32.5 percent. The reference wage is the average assumed wage over the last 12 contribution months.

If the above conditions are not satisfied, but subject to a contribution record of at least one-third of the period since entry and a minimum of 6 months, a "reduced pension" is payable: 25 percent of the reference wage.

In either case, the pension is subject to the minimum of MYR200 per month. If the invalidity pensioner needs constant attendance, a constant attendance allowance of MYR250 per month is payable.

"Invalidity grant" if qualifying conditions for pension are not satisfied, subject to a minimum of 6 contributions, the invalidity pension contributions are reimbursed with the addition of simple interest.

"Survivors' pension" is payable on the death of an insured employee before age 60, or of an invalidity pensioner. The basic amount of the pension is the invalidity pension actually received by the deceased or which would have been payable if a claim had been made on the date of death. The provision relating to the eligible beneficiaries, and to their shares, is identical to that which applies to the dependants' benefit.

"Funeral benefit" (MYR1000) is payable on the death of an invalidity pensioner, or of an insured employee before age 60 subject to the satisfaction of the minimum qualifying conditions for Invalidity Pension.

"Rehabilitation benefit" (vocational and physical rehabilitation) is provided to employees who suffer invalidity.

"Dialysis benefit" is provided to employees suffering from chronic renal failure.

The equity or discrimination issue should be discussed in the report as the benefits are smaller than those of nationals taking into consideration the contribution rate that will be applied.

## Modeling approach and data requests

### 12 a) Civil servants

*Model:* a specific set of assumptions would be determined for that group and the projections would be made separately.



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*Data:* detailed information on the number of civil servants and their salaries for the last three or five years is needed. For the determination of assumptions regarding the incidence and severity of accidents, data are possibly available from the government. If they are not, assumptions will be determined based on national experience for the private sector for equivalent risk and international experience. (see tab *Civil Servants* in the Excel template). The data request will be completed after discussion on data availability related to incidence and severity of claims.

12 b) **Homemakers/Housewives**

*Model:* a specific set of assumptions would be determined for this group and the projections would be made separately.

*Data:* the number of people to be covered by age would have to be estimated probably from general statistics on the population and the labour force (probably unpaid family workers). Has SOCSO undertaken any research on the matter? Would SOCSO have a preliminary estimate on the covered population and the incidence of injuries? Please share any relevant information and studies already undertaken. Assumptions on incidence and severity of accidents will probably have to be assessed from international experience.

12 c) **Domestic workers**

*Model:* a specific set of assumptions would be determined for this group and the projections would be made separately.

*Data:* the number of people to be covered by sex and gender would have to be estimated possibly from statistics on the labour force. Has SOCSO undertaken any research on the matter? Would SOCSO have a preliminary estimate on the covered population and the incidence of injuries? Please share any relevant information and studies already undertaken. Assumptions on incidence and severity of accidents will probably have to be assessed from the international experience.

12 d) **Foreign workers (IS scheme)**

*Model:* the projections would be made in a specific valuation run. The covered population would be the same as that used for the EI scheme. To the extent possible, specific assumptions would be developed.

*Data:* SOCSO to provide most recent information that it has for the year 2019 by reporting separately for this the data requested in the file **Data\_request\_SOCSO\_v20201022.pdf** previously submitted. As the coverage has probably not reached maturity, it will most likely be necessary to undertake research using national data. The details of this research will be defined after assessing the reliability and completeness of SOCSO data.

**3. To recommend the appropriate contribution rates for the extension of the self-employed injury scheme to 18 other sectors (Item 13 in Terms of Reference)**

**To be clarified:**





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**Benefits:** would the benefits be those under current Act 4 or those defined by the new Act replacing Act 4? It is recommended that the exercise is based on the current law Act 4.

The **industry categories** are listed in the First Schedule of Act 789. Correspondence between this classification system and the one used in statistical reports for employers must be assessed.

#### **Modeling approach and data requests**

*Model:* The module used for the Self-Employed currently covered would be used for the demographic and financial projections. For the determination of contributions rates, the risk ratios determined for the employed workers would be used subject to investigation regarding possible differences in the experience of salaried and self-employed workers.

*Data:* the covered population and their earnings by sex and age will be necessary. The data may possibly be obtained from statistics on labour force and the economy. SOCSO may also have made some studies in the matter. Data regarding frequency and severity of accidents are probably not available. Assumptions will have to be developed from the experience of the scheme of the employed workers by economic sector. Specific data requests may follow subsequently.

#### **4. To evaluate the impact on Act 789's sustainability, recommend new contribution rates, and provide recommendation on the extension of Invalidity and Survivors' Pension to the currently covered and the 18 other sectors (Item 14 in Terms of Reference)**

##### **To be clarified:**

Would benefits be the current ones or those contemplated in a new Act? It is recommended to do the exercise based on the current law Act 4.

The contribution rate for the IS would be the same for all sectors.

Should the analysis on extension to IS be made separately for those covered currently under the Act (e-hailing, taxi and bus drivers,) and the other sectors not currently covered or for all sectors together?

#### **Modeling approach and data requests**

*Model:* The model for the employed workers would be used. Projections would be made separately for the extended group.

*Data:* needs regarding the covered population and the earnings are the same as those of the projection of the self-employment injury scheme discussed in Section 3.

#### **5. To evaluate the impact on Act 4's sustainability and provide opinions on the proposal to pool and manage Act 789's fund together with Act 4's (Item 15 in Terms of Reference)**

##### **To be clarified:**





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The first part of the sentence seems to duplicate item 5 of the TORs which is: “An assessment of the long-term financial sustainability of SOCSO with regards to the status-quo situation as to the reform options”. Therefore, would the objective be to determine the impact on the sustainability of Act 4 from pooling fund of Act 4 and Act 789? In principle, it has no impact unless the combination of funds makes it politically more difficult increases to contribution rates when needed.

Would this pooling require a change in the law or could it be achieved under the current legal framework?

## **6. Final remarks**

The description of the required data in this note seeks to present the ideal situation but remains subject to the final decisions made regarding the model and the capacity of SOCSO to respond to the requests within a reasonable time frame. It is understood that subsequent data requests will follow after clarification of some issues.

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## **Annex: Detailed terms of reference (extract)**

11. To recommend new contribution rates and evaluate the impact on the fund's sustainability considering:

- a) The closure of Act 4 from new entrants;
- b) The introduction of a new act applicable to new entrants with the following changes from Act 4, all else being equal:

- i. Insured Person will receive monthly payments (after the deductions to the Employee's Provident Fund) for Invalidity Pension and Permanent Disability benefit until the retirement age e.g., 60 years old;

- ii. Survivors' Pension and Dependents' Benefit with the following payout:

- Option 1:

- Widow(er), parent, or grandparent will receive monthly payments from the death of the Insured Person to when the Insured Person reaches retirement age e.g. 60 years old, had the insured been alive, or to when the widow(er), parent, or grandparent dies, whichever is earlier;

- Child or sibling will receive monthly payments from the death of the Insured Person to when the Insured Person reaches retirement age e.g. 60 years old, had the insured been alive, or to when the child or sibling reaches the age of 25, or to when the child or sibling marries or starts working, whichever is earlier;

- iii. Cessation of Invalidity Grant and lump sum payments for Permanent Disability Benefit;

- iv. Revised schedule of injuries (will be provided by SOCSO);

- v. For cases when insured person incurred different disablement at a different period and as a result is entitled to both invalidity pension and permanent disablement benefit, the total amount of benefit received by the insured person shall not exceed 100% of the average monthly wage;

- vi. Reduction in the number of dependants would reduce the amount of monthly payments by the distributed proportion of the dependants i.e., no redistribution of monthly payment amounts;

- vii. Reduction in the daily rate for temporary and permanent disability by 10% for each subsequent accident incurring during the period of one (1) year until reaching the minimum daily rate of 50%;

- c) Differential contribution rates by industry for the Employment Injury Scheme under the new act. 28



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12. To project the financials for the potential extension of the cover to new segments/entrants below:

- a) Civil servants – to be included under existing coverage provided under Act 4;
- b) Homemakers/Housewives
  - i. Homemaker/ Housewife means a female who manages a household and includes
    - Any wife, divorcee, or widow whose marriage has been registered under any written law; and
    - Any mother of a child including a single mother.
  - ii. To establish a new scheme with the following benefit payout
    - Permanent Disability – lump sum payment between RM 1,000 to RM 30,000 depending on the severity of injury i.e. percentage of disability;
    - Medical benefit – the same rate as Act 4;
    - Constant Attendance Allowance – RM 250 per month and the eligibility criteria for this benefit remains the same as Act 4's;
    - Physical or vocational rehabilitation facilities – up to RM 50,000 per claim and dialysis treatment is subject to a maximum of RM 200 per month;
    - Invalidity Pension – RM 300 per month up to the age of 55 or death, whichever is earlier;
    - Survivors' Pension – RM 300 per month payable if insured person dies before the age of 55 years old, subject to up to age 21 for a child or up to age 55 for other than a child or until marriage and other conditions to be imposed on dependents, according to the same proportion of daily rate payment as stipulated under Act 4;
    - Funeral Benefit – RM 2,000 for the death of insured person before reaching the age of 55 years old;
  - iii. Funded by the government (RM 20 million for the year 2020);
- c) Domestic workers – to be included under existing coverage provided under Act 4;
- d) Foreign workers
  - i. To provide invalidity and survivors' pension coverage that pays out half of the benefit entitlement stipulated under Act 4 and reduction of qualifying period to the fulfilment of at least 12 months in the last 20 months of contribution paid.

Specific deliverables for Act 789



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13. To review the sustainability of the fund and recommend the appropriate contribution rates for the extension of the self-employed injury scheme to 18 other sectors, namely:

- a) Agriculture, forestry, and fisheries;
- b) Mining and quarrying;
- c) Manufacturing, processing, preservation, manufacturing, repair, installation or producing;
- d) Manufacturing, distribution, generation, the transmission of electricity, gas, steam, air conditioning, and gaseous fuels;
- e) Water supply, sewerage, waste management, and remediation activities;
- f) Construction;
- g) Wholesale and retail trade, sales, maintenance, and repair;
- h) Transportation and storage of goods or materials;
- i) Accommodation and food and beverage service activities;
- j) Information and communication;
- k) Service, agency or activity of financial support, insurance or takaful;
- l) Real estate management for own property, leasing or rental of real estate on a payment or contract basis;
- m) Professional, scientific and technical services;
- n) Administrative and support services;
- o) Public or private education pre-school, primary, secondary, high, special, sports, arts, skills, vocational including educational support services;
- p) Health, mental, physical or social care, treatment, and recovery;
- q) Arts, entertainment, creatives, libraries, archives, museums, culture, sports, and recreation;
- r) Other households or personal services include domestic workers, diners, trainers or pet care, and funeral management.

14. To evaluate the impact on Act 789's sustainability, recommend new contribution rates, and provide recommendations on:

- a) The introduction of Invalidity and Survivors' Pension for self-employed e-Hailing, taxi and bus drivers, and self-employed individuals under the 18 sectors described above;



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15. To evaluate the impact on Act 4's sustainability and provide opinions on the proposal to pool and manage Act 789's fund together with Act 4's.