



Financial services associated with insurance and pension schemes (Social insurance schemes)

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Outline of presentation

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- Overview of social insurance schemes
 - Social security schemes
 - Employment-related social insurance schemes other than social security
- Allocation of output
- Volume measures
- References



Overview of social insurance schemes

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- Insurance scheme where the following two conditions are satisfied:
 - Benefits received are conditional on participation in the scheme and constitute social benefits
 - At least one of the three conditions following is met:
 - Participation in the scheme is obligatory either by law or under terms and conditions of employment
 - Scheme is collective one operated for the benefit of a designated group of workers, whether employed or non-employed, participation being restricted to members of that group
 - Employer makes a contribution (actual or imputed) to the scheme on behalf of an employee, whether or not the employee also makes a contribution



Overview of social insurance schemes

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- Two main classes
 - Social security schemes
 - Employment-related social insurance schemes other than social security
- Always involves at least one unit (employer, general government, financial corporation, or NPISH) other than the beneficiary
- Beneficiaries can be resident or non-resident households



Social security schemes

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- A social insurance scheme covering the entire community, or large sections of the community, that are imposed, controlled and financed by government units
- Individual must participate in the scheme to receive social security benefits
- Two types
 - Pension
 - Non-pension



Social security schemes

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Output

- If the social security fund is a separate unit, output is calculated as the sum of costs
- If the social security fund is not a separate unit, output is included with the output of the level of government at which it operates



Employment-related social insurance schemes other than social security

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- Two types
 - Pension
 - Defined contribution
 - Defined benefit
 - Non-pension
 - Unfunded
 - Funded



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Pension-defined contribution

- Benefits payable on retirement are defined exclusively in terms of the level of the fund built up from the contributions made over working life and increases in value that result from the investment of these funds
- Entire risk to provide adequate income in retirement is borne by participant



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Pension-defined benefit

- Benefits payable on retirement are determined actuarially by the use of a formula, either alone or as a minimum amount payable
- Risk to provide an adequate income in retirement is borne either by the employer or is shared between the employer and employee



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Output of defined contribution and defined benefit pension funds

- If operated by employer
 - Sum of costs recorded as output of employer
- If fund is administered by pension administrator
 - Output is explicit fee payable to pension administrator
- If insurance corporation runs scheme for several employers (multiemployer scheme)
 - Output is calculated as
 - Social contributions
 - plus contribution supplements
 - minus benefits payable
 - minus increases (plus decreases) in pension entitlements



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Output of defined contribution and defined benefit pension funds

- Social contributions
 - Actual or imputed payments by employers, employees, self employed and unemployed to social insurance schemes to make provision for social insurance benefits to be paid
- Social insurance benefits
 - Social benefits payable because the beneficiary participates in a social insurance scheme and the social risk insured against has occurred
- Contribution supplements
 - Investment income payable on pension entitlements which is retained by pension funds
 - Equivalent of premium supplements



Additional points regarding defined contribution and defined benefit pension funds

- **Adjustment for change in pension entitlements**
 - Needed in order to reconcile the treatment of pensions as current transfers with the treatment of pension entitlements as financial assets
 - Adds social contributions back to, and subtracts pension receipts from, the balance on secondary income
 - After the adjustment, the saving of households is the same as what it would have been if social contributions and pension receipts were not recorded as current transfers



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Additional points regarding defined contribution and defined benefit pension funds

- **Net social contributions** which are actual or imputed contributions made by households to the funds to make provision for social benefits to be paid
 - Employers' actual social contributions
 - plus employers' imputed social contributions
 - plus employees' actual social contributions
 - plus contribution supplements
 - payable by pension schemes on pension entitlements
 - minus service charges payable to pension schemes
- Employers' imputed social contributions apply only to unfunded employer-related non-pension schemes, defined contribution pension schemes operated by employers and defined benefit pension schemes



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Additional points regarding defined benefit pension funds – need for equality

- Increase in pension entitlements is actuarially determined considering
 - **Current service increase** (increase in entitlement associated with the wages and salaries earned in the current period)
 - **Past service increase** (increase in the value of the entitlement since retirement is one year nearer)
 - Decrease in the level of entitlement due to the payment of benefits to retirees of the scheme
 - Other factors (reflected in other changes in assets account)
- Current service increase and past service increase are contractual promises to pension beneficiaries



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Additional points regarding defined benefit pension funds – need for equality

- If sum of employers' and employees' actual pension contributions are insufficient to meet current service increase and service charge of pension fund
 - **Imputed employers' pension contribution is needed to ensure equality** and is recorded in
 - Generation of income account
 - Allocation of primary income account
 - Secondary distribution of income account



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Additional points regarding defined benefit pension funds – need for equality

- If past service increase reflecting investment income payable on pension entitlements is not matched by actual property income earned from investing pension funds
 - **Imputed property income is needed to ensure equality** and is recorded in
 - Allocation of primary income account
- Claim of pension fund on pension manager
 - Represents imputed employers' pension contribution and imputed property income on pension fund's claim on the pension manager and is recorded in
 - Financial account
- AEG is still discussing exact term for imputed property income



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Non-pension unfunded

- Typically operated and managed by employers
- Employers make imputed non-pension contribution on behalf of employees
- No investment income and thus, no contribution supplements
- Output is calculated as sum of costs



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Non-pension funded

- May be carried out by insurance corporations or employers on behalf of present and past employees (for example, health cover)
- Liabilities are recorded only when and to the extent that they exist in the employer's accounts
- Output is calculated in the same way as output of non-life insurance



Allocation of output

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- In general, the approach is similar to the approach for other financial services such as non-life insurance, life insurance, reinsurance, etc.



Social insurance schemes which pay pension benefits

- If output is calculated as sum of costs
 - Deflate current-price output by composite index of input prices
- If output is an explicit fee
 - Deflate output by appropriate price index
- If output is calculated using the life insurance output formula
 - Extrapolate base-period output by volume growth of social contributions
 - Calculate volume measures of social contributions by deflation using an appropriate wage index



Social insurance schemes which pay non-pension benefits

- If output is calculated as sum of costs
 - Deflate current-price output by composite index of input prices
- If output is calculated using the non-life insurance output formula
 - Extrapolate base-period output by composite volume growth of relevant classes of non-life insurance which are also found in social insurance



References

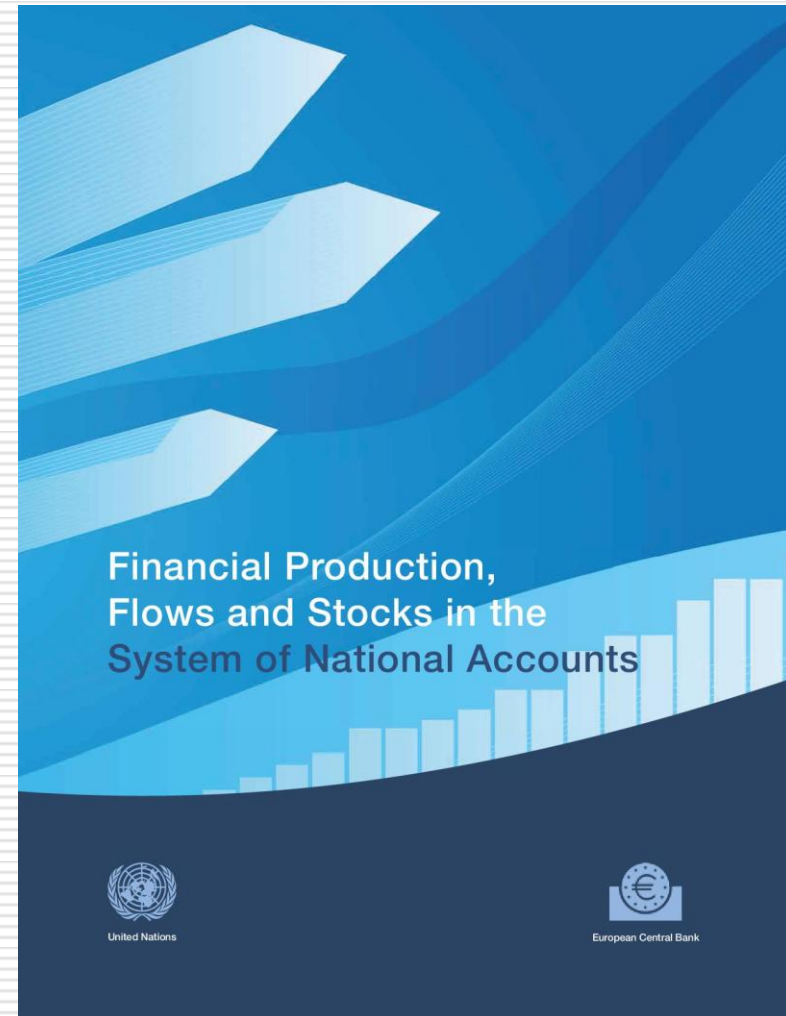
- Worked examples 3.22, 3.23, 3.24, 3.25, 3.26 on pages 193, 199, 207, 221 and 225 of financial handbook show how to calculate and record output and other transactions of social insurance schemes



References

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- To obtain a copy of the financial handbook, send your name and mailing address to sna@un.org
- Email sna@un.org if you have any other questions





Thank you