The Taxation of Pensions: Issues, concepts and international experiences

Robert Holzmann (Austrian Academy of Sciences, Vienna)
Bernd Genser (University of Constance)

Joint Vienna Institute

Thursday, January 17, 2019
3:45 p.m. to 5:15 p.m.
Motivation: There are issues

- Pensions systems/retirement income are complicated issues
- Taxation of income (wages, profits, ..) are complicated issues
- The taxation of retirement income/pensions is a very, very complicated issue
- The portability of pensions across national borders is a complicated issue
- The taxation of pensions across borders is a very, very, very complicated issue that is not on the radar screen of economists and policy makers
Motivation: Do these issues matter and is there a solution?

- Pensions/retirement income is an increasing tax base of countries as population ages and retirement income becomes more formal.
- International mobility of workers and retirees is increasing, at times influenced by tax arbitrage.
- Current taxation rules and practices of pensions create a double fairness dilemma: between countries and between individuals.
- The OECD model convention and the existing network of bilateral double taxation treaties do not pay attention to the fundamental intertemporal character of pension taxation.
- Our proposed solution is to move from back- to front-loaded taxation under three payment options.
Figure 1.1. Gross pension replacement rates from mandatory public, private and voluntary private pension schemes

Percent of individual earnings, average earner

Note: Theoretical gross replacement rates, full career worker, 2016 legislation.
Source: (OECD, 2017), other OECD data.
Figure 1.2. Mandatory pension contribution rates for an average worker in 2016

* indicates social insurance contribution, including non-pension benefits

Source: (OECD, 2017[2]), other OECD data
Figure 1.3. Total assets in funded and private pension arrangements, in 2002 and 2017
As a percentage of GDP

Outline

Part I: The Taxation of Pensions: A very brief introduction (Holzmann)
1. Pension systems, their pillars and taxation
2. Three phases of earnings-related income taxation
3. Two basic concepts of pension taxation: CIT and EIT

Part II: The Taxation of Cross-Border Pensions: Issues and proposal (Genser)
4. The state of cross-border taxation of pensions
5. The double fairness dilemma of back-loaded pension taxation – for countries and individuals
6. The proposal: Front-loading taxation under three payment options
Part 1: The Taxation of Pensions – A very brief introduction

1. Pension systems of countries consists of various schemes (pillars) with different objectives, benefit types, financing and taxation modes

**Key objectives:** Poverty reduction, income replacement/consumption smoothing

**Benefit type:** Defined benefit, defined contribution

**Funding:** Unfunded/non-financial, funded/financial

**Taxation:** At contribution/saving; returns; disbursement/benefits
<table>
<thead>
<tr>
<th>Pillar</th>
<th>Lifetime poor</th>
<th>Informal sector</th>
<th>Formal sector</th>
<th>Characteristics</th>
<th>Participation</th>
<th>Funding/ Collateral</th>
<th>Contributions</th>
<th>Returns</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Social pension, at least social assistance, universal or means tested</td>
<td>Residual</td>
<td>Budget General revenues</td>
<td>n.a.</td>
<td>n.a.</td>
<td>typically exempt</td>
</tr>
<tr>
<td>1</td>
<td>X</td>
<td></td>
<td></td>
<td>Public pension plan, publicly managed, unfunded DB or DC (i.e. NDB, NDC)</td>
<td>Mandated</td>
<td>Contributions, maybe with financial reserves</td>
<td>typically exempt</td>
<td>n.a.</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>X</td>
<td></td>
<td>Occupational or personal pension plans, funded DB or funded DC</td>
<td>Mandated</td>
<td>Financial assets</td>
<td>x</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>x</td>
<td>X</td>
<td>X</td>
<td>Occupational or personal pension plans, funded DB or funded DC</td>
<td>Voluntary</td>
<td>Financial assets</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Home ownership, medical care, family support, etc.</td>
<td>Voluntary</td>
<td>Financial assets</td>
<td>x/ n.a.</td>
<td>x/ n.a.</td>
<td>x/ n.a.</td>
</tr>
</tbody>
</table>

Note: Importance of each pillar for each target group:

X Very                    X Moderate            x Little

Source: Holzmann and Hinz 2005, Genser and Holzmann 2018
2. Three phases of earnings-related retirement income taxation

• At contribution payment (saving effort) C
  – Example: Income Y 100, contribution rate 10%, tax rate 20%
    
    \[
    C = 0.1 \times 100 = 10; \\
    T_1 = 0.2 \times 100 = 20; \text{ or } T_2 = 0.2 \times (100-10) = 18
    \]
    
    Taxed: T \quad \text{Exempt: E}

• At return receipt (rate of return) on accumulations (financial or non-financial) [E or T]

• At disbursement/benefit receipt [E or T]

Note: In countries often lower tax rates t or even subsidies s are used to further retirement savings
3. Concepts of (retirement) income taxation

- Differ in their tax base definition/phase of taxation and views on the importance of distortions on savings/labor supply decisions
- **Comprehensive Income Tax (CIT):** Tax base for a period/year is consumption plus change in net wealth (i.e. any form of savings)
- **Expenditure Income Tax (EIT):** Tax base is only individual consumption; non-consumption expenses and net savings are excluded
- Tax treatment of retirement income over life cycle under CIT vs EIT
  - CIT: T-T-E
  - EIT: T-t-E or its equivalence E-E-T
- The actual income taxation of retirement income in and across countries varies across pillars with some dominance of E-E-T and heterogeneity for 2nd and 3rd pillars (Table 1)
<table>
<thead>
<tr>
<th>Tax</th>
<th>Statutory</th>
<th>Occupational</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-T-E</td>
<td>NZ, TR</td>
<td>NZ, TR</td>
<td>AU, DK</td>
</tr>
<tr>
<td>T-t-E</td>
<td>AU, DK</td>
<td>AU</td>
<td>IT, SE</td>
</tr>
<tr>
<td>T-E-t</td>
<td>IT, SE</td>
<td>DE</td>
<td>SK</td>
</tr>
<tr>
<td>t-T-E</td>
<td>IT, SE</td>
<td>DE</td>
<td>SK</td>
</tr>
<tr>
<td>t-E-T</td>
<td>CA, FR, GB, MT, NL</td>
<td>BE, HR, NO</td>
<td>AT, FI, HR, NO</td>
</tr>
<tr>
<td>t-t-t</td>
<td>FR</td>
<td>FR</td>
<td>FR</td>
</tr>
<tr>
<td>E-t-T</td>
<td>DK, LV, SE</td>
<td>DK</td>
<td>DK</td>
</tr>
<tr>
<td>T-E-E</td>
<td>LV, PL</td>
<td>LV, PL</td>
<td>LV, PL</td>
</tr>
<tr>
<td>t-t-E</td>
<td>AU</td>
<td>AU</td>
<td>AU</td>
</tr>
<tr>
<td>t-E-t</td>
<td>CH, DE, EE, LI, NO</td>
<td>AT, BE, FR, LU, MT, PT</td>
<td>AT, BE, FR, MT, PT</td>
</tr>
<tr>
<td>E-E-T</td>
<td>AT, BE, CH, CY, DE, DK, ES, FI, GR, HR, IR, IS, IT, LU, MK, PL, RO, SI, SK</td>
<td>CA, CH, ES, FI, DE, GR, HR, IS, NL, SI, US</td>
<td>CA, CH, ES, GR, HR, IS, NL, PL, SE, SI, US</td>
</tr>
<tr>
<td>E-t-t</td>
<td>CZ</td>
<td>IT</td>
<td>IT, LV</td>
</tr>
<tr>
<td>s-E-T</td>
<td>SE</td>
<td>SE</td>
<td>SE</td>
</tr>
<tr>
<td>t-E-E</td>
<td>AL, HU, LT, ME</td>
<td>CZ, HU</td>
<td>CZ, EE</td>
</tr>
<tr>
<td>E-t-E</td>
<td>ME</td>
<td>CY</td>
<td>CY</td>
</tr>
<tr>
<td>E-E-t</td>
<td>LI, LV, PT, TR, US</td>
<td>EE, GB, IR, IS, RO</td>
<td>GB, IR, LU, PL, RO</td>
</tr>
<tr>
<td>E-E-E</td>
<td>AM, AZ, BG, BY, GE, MC, MD, RS, RU, UA</td>
<td>BG, SK</td>
<td>BG, LT</td>
</tr>
</tbody>
</table>
The Taxation of Pensions

Edited by Robert Holzmann and John Piggot

Policy makers and academic researchers have been preoccupied in recent decades with the design of pension schemes and effective pension system reform. Relatively little attention has been given to the taxation of pensions and, more broadly, the provision of retirement income. In this book, experts from a range of countries explore the interconnections. Their contributions are especially timely, given recent demographic and political developments including population aging that lengthens the time between contribution payment and benefit receipt, the mobility of capital and labor brought about by globalization, and the complexity of pension taxation within and between countries. In shedding light on these issues, the chapters document the various forms of taxation of pension systems; use economic theory to explain both qualitative and quantitative observations; and consider whether the observed interaction of taxation and pensions is efficient. Theoretical overviews are followed by rigorous analyses of pension taxation in specific countries, including Denmark, Sweden, Portugal, Australia, Germany, the United Kingdom, and the United States.

Robert Holzmann is a member of the Austrian Academy of Sciences and holds honorary positions at the University of New South Wales and the University of Malaysia. John Piggott is Director of the ARC Centre of Excellence in Population Ageing Research (CEPAR) and Senior Professor of Economics at the University of New South Wales.

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Part II: The Taxation of Cross-Border Pensions - Issues and Proposal

4. The state of cross-border taxation of pensions

• The national rules for pension taxation
  - are highly diverse within countries
  - differ between countries (Table 1)

• If individual pension income contains cross-border pension benefits, national tax rules are complemented by bilateral tax treaty rules and the complexity of pension taxation is substantially increased (Table 2)

• Rising mobility of workers and pensioners will substantially increase the share of pensioners who receive cross-border pension payments (Table 3)
International double taxation occurs, if
- income tax is levied on worldwide income of a resident, and
- foreign source income is also taxed in the source state

**Bilateral tax treaties**
- signed to avoid international double taxation on income (since 1850)
- internationally coordinated by the OECD Model Tax Convention
- recommend two avoidance methods
  - tax exemption in one of the two states
  - tax credits in the residence state for income tax payments in the source state
- assign the right to tax income for each type of taxable income and define the avoidance method for each type of income
# Table 2: Tax Assignment of Cross-border Pension Benefits

<table>
<thead>
<tr>
<th>Tax assignment in German tax treaties</th>
<th>Statutory pensions</th>
<th>Occupational pensions</th>
<th>Personal pensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive residence taxation</td>
<td>CA, CH, CZ, EE, ES, FI, GR, HU, IR, IT, LU, PT, SE, SI, UK, US</td>
<td>AT, BE, CH, CZ, EE, ES, FI, FR, GR, HU, IR, IT, LU, MT, NL, PL, SE, SI, UK, US</td>
<td>AT, BE, CH, CZ, DK, EE, ES, FI, FR, GR, HU, IR, IT, LU, MT, NL, PL, PT, SE, SI, UK, US</td>
</tr>
<tr>
<td>Exclusive source taxation, progression proviso in residence country</td>
<td>AT, BE, DK, FR, IT (citizens), MT, NL, PL, SE</td>
<td>FR (mandatory)</td>
<td></td>
</tr>
<tr>
<td>non-exclusive source taxation, tax credit in residence country</td>
<td>CA, DK</td>
<td>CA, DK (rents),</td>
<td></td>
</tr>
</tbody>
</table>

Source: Genser/Holzmann (2018), Wellisch et al. (2008), tax treaties
## Table 3: Recipients of statutory German pensions

<table>
<thead>
<tr>
<th>Number of pensioners</th>
<th>2015</th>
<th>2010</th>
<th>2005</th>
<th>annual growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total pensioners</td>
<td>25,511 (100%)</td>
<td>25,013 (100%)</td>
<td>24,473 (100%)</td>
<td>0.42%</td>
</tr>
<tr>
<td>Pensioners living outside Germany</td>
<td>1,746 (6.84%)</td>
<td>1,629 (6.51%)</td>
<td>1,427 (5.83%)</td>
<td>2.03%</td>
</tr>
<tr>
<td>Non-German pensioners living in Germany</td>
<td>1,157 (4.54%)</td>
<td>0,944 (3.78)</td>
<td>0,773 (3.16)</td>
<td>4.05%</td>
</tr>
<tr>
<td>Potential recipients of cross-border pensions</td>
<td>2,784 (11.38%)</td>
<td>2,574 (10.29%)</td>
<td>2,201 (8.99)</td>
<td>2.81%</td>
</tr>
</tbody>
</table>

Source: Genser and Holzmann (2016, based on Eurostat Online Database, June 2015)
5. The double fairness dilemma of back-loaded pension taxation (E-E-T)

- E-E-T taxation of pensions is a key concept of OECD countries and promoted in EU documents
- E-E-T taxation creates a fairness dilemma for cross-border pensions
- Source state receives no tax on migrants’ earned income spent on pensions contributions if residence state has the exclusive right to tax pension payments
- Migrants are double taxed if source countries try to avoid income tax losses by pre-taxing pensions while pension wealth is accumulated because treaties only allow tax credits for source taxes on pension benefit payouts
Table 4: Migrants tax burden for different regimes and assignments

<table>
<thead>
<tr>
<th></th>
<th>residence principle</th>
<th>source principle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E-E-T</td>
<td>T-E-E</td>
</tr>
<tr>
<td>A1 income</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>A1 pension saving</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>A1 tax base</td>
<td>96</td>
<td>120</td>
</tr>
<tr>
<td>A1 income tax</td>
<td>28,8</td>
<td>36</td>
</tr>
<tr>
<td>A2 pension benefit</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>A2 tax base</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A2 income tax</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B2 tax base</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>B2 income tax</td>
<td>14,4</td>
<td>14,4</td>
</tr>
<tr>
<td>B2 tax credit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>total income 1/</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td>total tax 1/</td>
<td>38,4</td>
<td>45,6</td>
</tr>
<tr>
<td>in A / in B</td>
<td>28,8/9,6</td>
<td>36/9,6</td>
</tr>
</tbody>
</table>

Parameters: labor income in A 120, income tax rate in A and B 30%, pension contribution rate 20%, normal rate of return 50%, excess return rate 50%, A1 working period in A, A2 retirement period in A, B2 retirement period in B
Motives for pension taxation in the residence state:
- better information on personal circumstances of tax payer (ability-to-pay, world-wide income)
- simple individual tax compliance (only one tax authority)
- exemption only for recipients of cross-border public pensions

Administration of E-E-T on cross-border pensions:
- monitoring foreign pension benefits and foreign taxes is costly for the residence state
- source-taxed migrants have to comply with tax authorities in source and residence state
- double taxation of migrants if source countries pretax pensions, because the Model Tax Convention does not consider credits for these tax payments
- no feasible way define and to monitor bilaterally acceptable tax credits based on past income tax payments
6. Income taxation with pre-taxed pension income

Starting position

a. pension taxation should be feasible over the whole pension cycle (contribution, pension wealth accumulation, pension benefit)

b. pensions should be taxed efficiently under the cash-flow/ expenditure taxation (Fisher/Kaldor principle)

c. avoidance of international double taxation of pensions must incorporate the whole pension cycle
Essentials of the pre-taxed pension income proposal

i. Deferred income taxation of saving, viz. E-E-T, is equivalent to immediate taxation of investment savings plus taxation of excess returns on capital wealth, viz. T-t-E (front-loaded expenditure taxation)

ii. Applied to pension taxation equivalence implies that in present value terms a pensioner’s tax burden over the pension cycle is the same under E-E-T and T-t-E (see table 5)

iii. Under T-t-E, pension benefits are regarded as withdrawals from pre-taxed pension wealth and exempt from income tax

iv. For pre-taxation states there is no requirement to assign the right to tax pension benefits in double taxation treaties
Table 5: Expenditure tax burden on migrants under different tax assignments

<table>
<thead>
<tr>
<th></th>
<th>residence principle</th>
<th>source principle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E-E-T</td>
<td>T-t-E</td>
</tr>
<tr>
<td>A1 income</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>A1 pension saving</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>A1 tax base</td>
<td>96</td>
<td>120</td>
</tr>
<tr>
<td>A1 income tax</td>
<td>28,8</td>
<td>36</td>
</tr>
<tr>
<td>A2 pension benefit</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>A2 tax base</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>A2 income tax</td>
<td>0</td>
<td>3,6</td>
</tr>
<tr>
<td>B2 tax base</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>B2 income tax</td>
<td>14,4</td>
<td>0</td>
</tr>
<tr>
<td>B2 tax credit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>total income 1/</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td>total tax 1/</td>
<td>38,4</td>
<td>38,4</td>
</tr>
<tr>
<td>in A / in B</td>
<td>28,8/9,6</td>
<td>38,4/0</td>
</tr>
</tbody>
</table>

Parameters: labor income in A 120, income tax rate in A and B 30%, pension contribution rate 20%, normal rate of return 50%, excess return rate 50%, A1 working period in A, A2 retirement period in A, B2 retirement period in B
Attractive features of front-loaded pension taxation

i. No international double taxation of pensions

ii. No tax revenue losses in source state as a migrant’s pension wealth is fully income taxed in the source country whenever he/she emigrates

iii. Only minor revisions of double taxation treaties are required if states maintain back-loaded pension taxation

iv. Reduced compliance and administration costs of pension taxation
   - no itemized pension saving in tax returns
   - substantial reduction of tax return filing for pensioners
   - pre-taxation of excess pension wealth returns directly by pension funds

v. Pensioners’ tax allowance leaves room for tax-free market activities
Tax payment options with pre-taxed pension income

Does front-loaded pension taxation cut disposable period income?

Three pre-paid tax payment options

i. indirect tax payment by the pension fund

ii. deferred tax payment in line with pension benefit payout

iii. phased tax payment over the whole pension cycle

Why may deferred payment of T-t-E pension tax liability be desirable?

- cash flow effects similar to deferred pension tax
- deferred tax revenue access as a break for government expenditure
- gross pension wealth accumulation may earn higher return rates
7. Concluding Remarks

- The complex and inconsistent status quo of taxing old-age pensions is unsustainable in a global environment.
- While useful in a closed economy setting, EU recommendations for E-E-T cannot be efficiently combined with existing double taxation treaties in a global economy setting.
- Replacing E-E-T by T-t-E taxation opens an efficient coordination path to solve the double equity dilemma of cross-border pension taxation.
- We hope that coordination in pension taxation will become a topic in the agenda of the EU Commission and G20 and provide a broader forum to check the potential of front-loaded pension taxation and confirm that improvement in efficiency and equity, protection of national tax revenue, and simplification of tax administration and tax compliance is feasible.


