Tax Expenditure Management of Korea

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ATI Regional Workshop on Tax Expenditure
Manila, the Philippines, March 1~3, 2023

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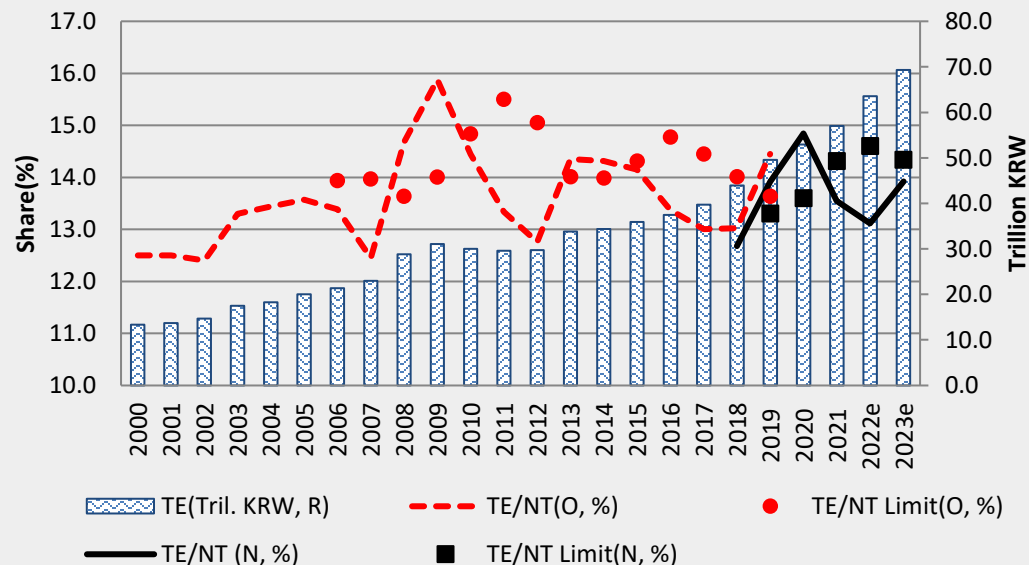# 1 Overviews

A. Tax expenditure

Tax exp.
- Increasing trend of TE is getting stronger.
- The share of TE to national tax revenue is 13.5% in 2021.

Ceiling
- TE/NTR ceiling is a discretionary policy target.
- TE/NTR exceeded the target during 2019~2020, but is under the control now.

Trend of TE

Note: O, N denote old and new definitions of NT(national tax revenue)

B. TE incidence

- Individuals are major TE recipients which accounts for 63% of TE
  - ✓ 70% of individual benefits goes for who earns less than 76 mil. KRW.
- 70% of corporate sector benefits is received by small enterprises.

Benefit structure of TE

Recipients	Classification	2021		2022		2023	
		Amount	Share	Amount	Share	Amount	Share
Individual	~ 76 mil. KRW	25.8	71.1%	27.3	68.4%	29.8	68.8%
	Over 76 mil. KRW	10.5	28.9%	12.6	31.6%	13.5	31.2%
	Sub-total	36.3	100.0%	39.9	100.0%	43.3	100.0%
	(sub-total/total)		63.6%		62.8%		62.5%
Corporate	Small Enterprises	14.4	70.9%	15.6	67.4%	16.8	66.2%
	Medium Enterprises	0.7	3.3%	0.9	3.8%	1.0	3.8%
	Large Enterprises	2.2	10.9%	3.6	15.5%	4.2	16.7%
	Others	3.0	14.9%	3.1	13.3%	3.4	13.3%
	Sub-total	20.3	100.0%	23.2	100.0%	25.4	100.0%
	(sub-total/total)		35.5%		36.5%		36.7%
Others		0.5	0.9%	0.4	0.7%	0.6	0.8%
Total		57.0	100.0%	63.6	100.0%	69.3	100.0%

Source: 2023 Tax expenditure budget, Korea government(2022)

2 TE management system

◆ **Legal backgrounds**

- 3 acts: National finance act, Framework act on national taxes, Restriction of special taxation act

  - National finance act(NaFA): defines a ceiling on reduction of national tax.

  - Framework act on national taxes(FANT): requires a long-term plan for tax policy which includes TE.

  - Restriction of special taxation act(ReSTA): defines TE tax codes and TE management schemes.

- Role of acts in TE management

  - Discretionary target: NaFA

  - Compulsory procedure: FANT, ReSTA

◆ **TE ceiling(NaFA)**

- TE/National tax revenue(NTR) ratio needs to be under the ceiling.

  - TE ceiling = 3 year MA of TE/NTR + 0.5%p

  - Discretionary target → effectiveness ??

- Announcement effect

- **Long-term tax plan(FANT)**

  - A tax plan covers 5+ years and is submitted to National Assembly.

◆ **Management schemes(ReSTA)**

- 3 stage control mechanism:

  • Pre-feasibility study → Operational evaluation → Comprehensive study

- Administrated by

  • MOEF: Pre-feasibility study, Comprehensive study

  • Executing ministries: Qualitative operational evaluation (report to MOEF)

- **Policy procedures**

- Annual TE plan (MOEF, March) → Submit new TE proposals and Operational evaluations of existing TEs(Line ministries, April) → TE budget (MOEF, September) → National Assembly

  • Pre-feasibility study & Comprehensive study are carried out during the first half of a year:

◆ **Pre-feasibility study(PFS) and Comprehensive study(CS)**

- Coverage: TEs which reduces revenue by more than 30 bill. KRW and discretionary choices (CS)

  - Comprehensive study has to be done before a TE expires.

  - Most TEs are managed by sunset clause(3 yrs) under ReSTA .

- Policy flow:

  - Selecting TEs to be analyzed (MOEF) → Competition for research (KIPF, KDI) → Data supports (NTS) → Study

    Report → MOEF → National Assembly (reviewed in the next year budget session)

- Contents of the study

  - PFS: necessity and timeliness of a TE, expected effects and problems etc.

  - CS: contributions on policy objectives, economic effects, redistribution effect, revenue effect etc.

3 **A case study**

◆ **Backgrounds**

- Korea constructs a multi-pillar pension system.

  - And provides tax incentives for private pension.

- Introduction of catch-up limit in 2020

  - Additional tax-deferred contributions is allowed for retirement savings (KRW 2 mil. ↑)

  - Eligible for those aged 50 or more

- Issues

  - Responsiveness to tax-deferred contribution limit

  - The extent of reshuffling

- We focus on the responsiveness/effectiveness (intensive margin)

  - Jeon and Kim(2022)

03 Catch-up limit of retirement saving

◆ **Literatures**

- Chetty et al. (2014)

  - Pension reform in Denmark

  - 15% of pop. are active savers who almost completely reshuffle

  - 85% are passive savers who do not reshuffle

- Lavecchia (2018)

  - Evaluation using RD (Regression discontinuity)

  - Increase in IRA contributions among those without 401(k) plans

  - No effect on 401(k) contributions

- Goodman(2020)

  - Increase in both IRA & 401(k) contributions

  - Limited evidence for reshuffling

◆ **Policy changes(2020.1.1)**

- Ceiling of tax credit amounts is increased for the low and aged earners.

    - Applied to both private pension accounts and IRA.

Total Income (Salary)	Credit rate (incl. local tax)	Contribution limits(incl. IRA, mil.)	
		Under 50	50 and more
~ 40 mil. (~55 mil.)	15% (16.5%)	4 (7)	6 (9)
40 ~ 100 mil. (55 ~ 120 mil.)	12% (13.2%)	4 (7)	6 (9)
Over 100 mil. (over 120 mil.)	12% (13.2%)	3 (7)	3 (7)

◆ **Data**

- Tax return data(2019~2020, 73,444)

- Birth cohort: 1966~1974(age 46~54 at 2020)

- Salary workers who have contribution records.

Descriptive statistics (2019~2020)

Variable	Mean	S.D
Female	0.35	0.48
Age	49.36	2.57
Total salary(10 thou. KRW)	7,136.33	2,463.55
Tax base	4,360.35	1,990.50
Private pension contribution	206.33	167.92
IRA contribution	92.32	179.17
Birth year 1966	0.09	0.29
Birth year 1967	0.10	0.30
Birth year 1968	0.11	0.31
Birth year 1969	0.12	0.32
Birth year 1970	0.12	0.32
Birth year 1971	0.12	0.33
Birth year 1972	0.12	0.32
Birth year 1973	0.11	0.32
Birth year 1974	0.11	0.32
No. of observations	73,444	

Source: NTS

◆ **Model**

- $y_{i,t} = \alpha \quad + \delta D_{i,t} + f(a_{i,t}) + m_{i,t} + \tau_t + u_{i,t}$

  - i: Individual, t year, $D_{i,t}$: policy dummy (treatment =1, otherwise =0), $f(a_{i,t})$: 2nd order age function
    $m_{i,t}$:total salary, τ_t: year dummy (2020 =1), $u_{i,t}$: error term.

Result 1: private pension

- Catch-up limit shows significant effects on pension contributions
- Size: 150~180 thou. KRW.

Effects on qualified private pension contributions

Variables	Qualified private pension contributions				
Cohort	1970-71	1969-72	1968-73	1967-74	1966-75
	(1)	(2)	(3)	(4)	(5)
Policy	15.48***	14.61***	18.38***	16.33***	17.94***
	(2.281)	(3.618)	(2.767)	(2.360)	(2.239)
Age	9.261***	-32.85	76.79**	33.95	59.84***
	(1.522)	(78.90)	(38.76)	(24.44)	(20.84)
Age-squared		44.09	-70.23*	-25.62	-53.16**
		(82.16)	(40.76)	(25.97)	(22.14)
Total salary	0.0188***	0.0197***	0.0196***	0.0195***	0.0195***
	(0.0019)	(0.0013)	(0.0010)	(0.0009)	(0.0009)
Constant	-385.6***	613.7	-2,012**	-983.9*	-1,593***
	(72.16)	(1,893)	(920.4)	(573.7)	(488.9)
No. of obs.	17,580	34,606	50,906	66,706	73,444
No. of taxpayers	8,790	17,303	25,453	33,353	36,722
Adj-R square	0.066	0.070	0.068	0.068	0.067

Note: Numbers in parenthesis is robust standard error and *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Effects on qualified retirement pension contributions

◆ **Result 2: IRA**

▪ Catch-up limit shows insignificant or small effects on retirement pension contributions

▪ Size: 40~70 thou. KRW.

Variables	Qualified retirement pension contributions				
Cohort	1970-71	1969-72	1968-73	1967-74	1966-75
	(1)	(2)	(3)	(4)	(5)
Policy	7.467***	7.444	3.798	4.858	4.478
	(2.884)	(4.577)	(3.505)	(2.995)	(2.843)
Age	32.03***	31.08	-75.00	-52.84*	-59.28**
	(2.010)	(99.98)	(49.20)	(31.13)	(26.74)
Age-squared		1.226	111.8**	88.85***	95.56***
		(104.1)	(51.80)	(33.13)	(28.44)
Total salary	0.0117***	0.0130***	0.0133***	0.0136***	0.0141***
	(0.00220)	(0.00162)	(0.00131)	(0.00114)	(0.00110)
Constant	-1,564***	-1,556	983.6	445.3	581.7
	(96.09)	(2,399)	(1,167)	(729.3)	(626.0)
No. of obs.	17,580	34,606	50,906	66,706	73,444
No. of taxpayers	8,790	17,303	25,453	33,353	36,722
Adj-R square	0.081	0.083	0.086	0.088	0.091

Note: Numbers in parenthesis is robust standard error and *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

◆ **Result 3:**

- Different effects by income class.

  - We find insignificant effects for workers earn under 55 mil. KRW.

  - But significant effects for higher income earners, 55 ~ 120 mil. KRW.

- We also find the catch-up limit can stimulate pension savings of salary workers who did not consume contribution limit previously.

- No significant effects for the self-employed.

4 **Concluding remarks**

Concluding remarks

◆ **Legal management framework is necessary to control TEs.**

- ▪ TEs has a natural tendency to increase b/c of existence of beneficiaries.

- • In policy aspects, there's lots of demand side pressure to alleviate/stimulate negative/positive socio-economic effects

▪ **Korea constructs 3-step management system.**

- • PFS, Operational evaluation, CS

- • Data provision is very important for evidence-based management.

▪ **Unfortunately, political viability is another problem.**

Thank you