Tax Base Protection: Implications from Korea's Experience

Dec 6, 2016

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Organization of Talk

- Fiscal Pressure in the AP region
- Tax Revenue (% GDP) rises with growth.
- Tax Structure: theory vs. practice
  - Evolving toward ones observed in rich countries
  - Still, narrow bases / “non-optimal” features
- Measures for Base Protection
  - Informal activity (PIT/VAT)
  - Corporate tax base; Role of tax/nontax incentives
  - Local vs. foreign firms
  - Taxation of financial sector; Earmarking

Fiscal Pressure in AP

- Little Revenue and High public spending needs
  - Revenue/GDP for LDC: ½ as large as DC
  - Poor infrastructure, education , health
- Population Aging, welfare spending (EMC)
  - Low fertility rates (Korea 1.24; OECD 1.70)
  - Welfare/GDP (Korea 10%; OECD 22%)
- The policy question is then**, how to reform existing tax structures** so as to
  - Raise more revenue, and
  - Encourage a more rapid rate of growth

Korea's Public Finance

- During the past thirty years, Korean per capita GDP grew from $2,500 to $28,000 (2010 $)
- Tax Revenue has grown from 17% of GDP to 25% (1980-2014)
- Spending priorities moved from 'growth infrastructure' to 'welfare.'
- Welfare expenditure as a fraction of GDP in Korea reached 10%, which is still half the average OECD level (20%).

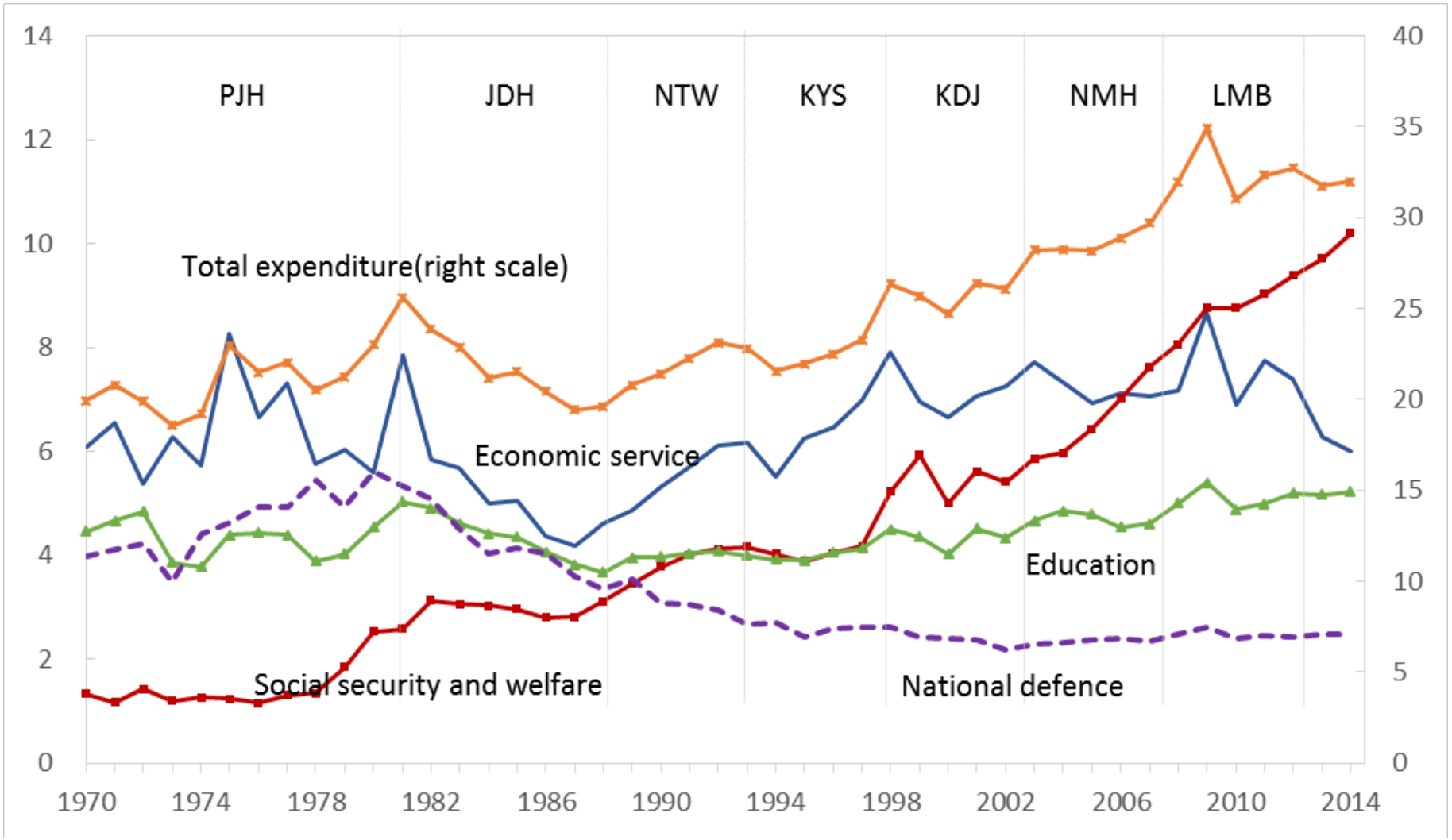
Tax Revenue as percentage of GDP

	1980	1990	1995	2000	2005	2010	2013	1980-2013 Change
Korea	16.8	16.9	16.8	17.9	17.8	17.9	17.9	**1.1**
	(16.9)	(18.8)	(19.1)	(21.5)	(22.5)	(23.4)	(24.3)	**(7.4)**
OECD[2]	23.2	24.7	24.8	25.7	25.4	24.0	25.1	**1.9**
	(30.1)	(32.1)	(33.6)	(34.2)	(33.9)	(32.8)	(34.2)	**(4.1)**
U.S.	19.9	19.3	19.7	21.5	19.5	17.0	19.3	-0.6
	(25.5)	(25.9)	(26.4)	(28.2)	(25.9)	(23.2)	(25.4)	(-0.1)
Sweden	31.2	36.0	33.0	36.1	34.1	32.3	32.9	1.7
	(43.7)	(49.5)	(45.6)	(49.0)	(46.6)	(43.2)	(42.8)	(-0.9)

Notes: 1. Figures in parentheses are with social security contributions included.
2. Unweighted averages.

Source: OECD (2015), *Revenue Statistics 1965-2014*

Changing Spending Priorities (% GDP)



Source: The Bank of Korea

Welfare Expenditures (% of GDP)

	1990	1995	2000	2005	2010	2015
Korea	2.7	3.1	4.5	6.1	8.3	**10.1**
OECD	16.9	18.8	18.0	18.8	21.1	**21.0**
Sweden	27.2	30.6	26.8	27.4	26.3	26.7
U.S.	13.2	15.1	14.3	15.6	19.3	19.0
Japan	11.1	14.1	16.3	18.2	22.1	n.a.

Source: OECD SOCX Database

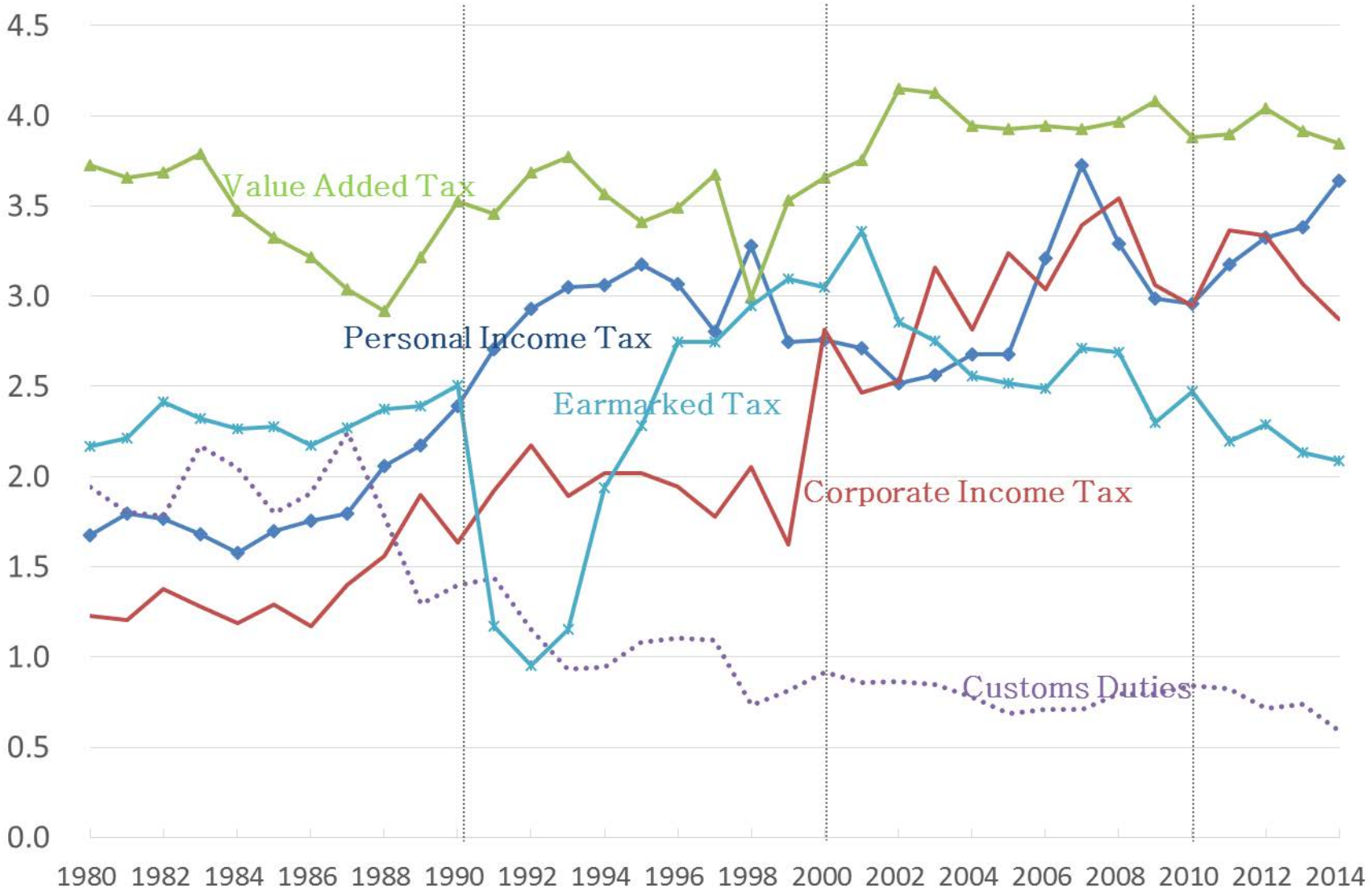
Korea's Evolving Tax Structure

- Optimal tax literature recommends:
  - A broad base with low tax rates
    (Consumption, labor income)
  - No trade barriers
- Korea's tax structure has changed dramatically during the same period (1980-2014)
  - Excise taxes and customs duties fell from 40.7% of tax revenue to 12.7% of revenue
  - Income and payroll taxes grew from 26.6% of tax revenue to 56.0% of revenue

Korea's Evolving Tax Structure

- **Still, narrow bases**
  - PIT plays a minor role (15.3% of revenue/3.7% GDP vs. 24.8%/8.8% OECD in 2013)
  - CIT/VAT, major sources of revenue, fall mostly on large corporations
  - Tax expenditures, PIT (32.8% of taxes paid, 2014)
  - Informal sector 26% (OECD 17%, US 9%. Avg99-10)
- **Unconventional instruments**
  - Earmarked taxes (17.3% revenue / 3.5% GDP)
  - Transaction taxes; surcharges (8% revenue)

Trends in Major Taxes (% of GDP)



Structure of Tax Revenue

	% of GDP		% of total tax revenue	
	1980	2014	1980	2014
Total tax revenue	**16.9**	**24.7**	**100.0**	**100.0**
Income	**4.3**	**7.2**	**25.5**	**29.1**
Personal income tax	1.9	4.0	11.5	16.3
Corporate income tax	1.9	3.2	11.0	12.8
Social security contributions	**0.2**	**6.6**	**1.1**	**26.9**
Consumption	**8.0**	**6.8**	**47.5**	**27.5**
Value added tax	3.7	4.2	22.0	17.2
Excise taxes	4.3	2.5	25.5	10.2
Property	**1.4**	**2.8**	**8.0**	**11.4**
Taxes on wealth holding	0.5	1.1	3.1	4.4
Taxes on transactions	0.8	1.7	5.0	7.0
Customs duties	**2.6**	**0.6**	**15.2**	**2.5**

Note: 1. Surtaxes are included where relevant.
2. Local consumption tax is included in value added tax in 2010.

Structure of Tax Revenue

(% of total tax revenue)

	Korea						OECD
	1980	1990	2000	2005	2010	2013	2013
Income taxes	26.6	42.8	45.5	50.4	51.4	**55.7**	**59.4**
. Personal income tax	11.5	20.0	14.6	13.3	14.2	15.3	24.8
. Corporate income tax	11.0	12.8	14.1	15.9	13.8	14.0	8.5
. Social Security Contributions	1.1	10.1	16.7	21.2	23.3	**26.4**	**26.1**
Property taxes	8.0	11.8	12.4	12.5	11.7	**10.7**	**5.6**
Consumption taxes	62.7	44.3	38.4	34.3	33.7	**30.7**	**32.7**
Other taxes	2.7	1.1	3.8	3.4	3.6	3.3	1.5

Notes: 1. Surtaxes are included where relevant.
2. Customs duties are included in consumption taxes.

Source: OECD Tax database

Comparison of Tax Structures

	Tax Revenue (% of GDP)	Income and Social Security Taxes (% of Revenue)	Corp Income Tax (% of income taxes)	Consumption and Production Taxes (% of Revenue)	Border Taxes (% of Revenue)	Informal Economy (% of GDP)
All developing	21.1	43.9	24.9	42.5	7.1	30.0
Korea	25.3	45.1	**31.6**	29.2	3.9	**26**
OECD	35.9	68.6	9.9	23.0	0.5	14.0

Source: Gordon and Jun (2014)

Comparison of Tax Structures

- Korea's tax structure at this point is intermediate between those seen in other developing countries and the typical tax structure among OECD countries
- As the economy grows, the expectation is that the personal income tax will grow in importance and the corporate tax will play a less dominant role.

Why do revenue figures vary so much among countries?

	Maximum Corp Tax Rate	Maximum Personal Tax Rate	Maximum VAT rate
Developing	26.7%	34.7%	14.7%
Korea	24.2%	38.5%	10%
Developed	29.6%	42.8%	16.2%

Source: Gordon and Jun (2014)

Comparison of Personal Income Tax

		1990	1995	2000	2005	2010	2014
Korea	% of GDP	3.8	3.5	3.1	3.0	3.3	4.0
	% of tax rev.	20.0	18.1	14.6	13.3	14.2	16.3
	Top rate[1]	53.8	43.0	44.0	38.5	38.5	41.8
OECD	% of GDP	10.1	9.1	9.1	8.6	8.2	8.8[2]
	% of tax rev.	29.5	26.0	25.3	24.1	24.0	24.8[2]
	Top rate[1]	50.6	52.2	46.4	42.7	41.8	43.4
U.S.	% of GDP	9.7	9.5	11.9	9.1	7.9	9.9
	% of tax rev.	37.6	36.1	42.1	35.3	33.9	38.2
	Top rate[1]	35.6	-	46.7	41.4	41.9	46.3
Sweden	% of GDP	19.1	15.3	16.3	14.7	12.0	12.2
	% of tax rev.	38.5	33.5	33.2	31.6	27.9	28.6
	Top rate[1]	66.2	61.3	55.4	56.6	56.6	56.9

Source: OECD Tax database
Notes: 1. Surtaxes are included.
2. Figures in 2013

Why do revenue figures vary so much among countries?

- As seen in the table, the sharp differences in tax revenue from each of the major taxes do NOT primarily reflect differences in tax rates.
  - Korean statutory tax rates a bit on the low side in comparison to other countries, but differences are small.
- Instead revenue difference largely reflects differences in the size of the informal economy.
  - Tax revenue/(GDP in the formal sector) broadly comparable in Korea and OECD countries as a whole (25% / 74% = 33%; 42.2% for OECD)

Rates of evasion then central to the evolution of tax structures

- Given high evasion rates on broad-based income and consumption taxes, developing countries make use of many supplementary sources of revenue that are easier to enforce
  - Tariffs
  - Excise taxes
  - Seignorage

Rates of evasion then central to the evolution of tax structures

- Policies also commonly favor those sectors where compliance is greater
  - Favorable access to bank loans
  - Protection through tariffs
  - Protection from competition from foreign subsidiaries

Optimal tax theory vs. Tax Structure

- Standard optimal-tax theory focuses on changes in labor supply / saving
- But changes in evasion can be the dominant source of efficiency losses in many developing countries.
- Only when evasion rates drop enough do we see tax structures that broadly correspond to the recommendations of existing optimal tax theories

What policies can reduce evasion?

- Economic growth per se
  - More productive firms find it more costly to operate in the informal economy
  - Publicly traded firms face pressures from market to report higher profits, even at cost of paying higher taxes
- Economic growth in Korea during the last thirty years has indeed increased tax revenue/GDP: from 16.9% to 24.6%, largely due to increased compliance

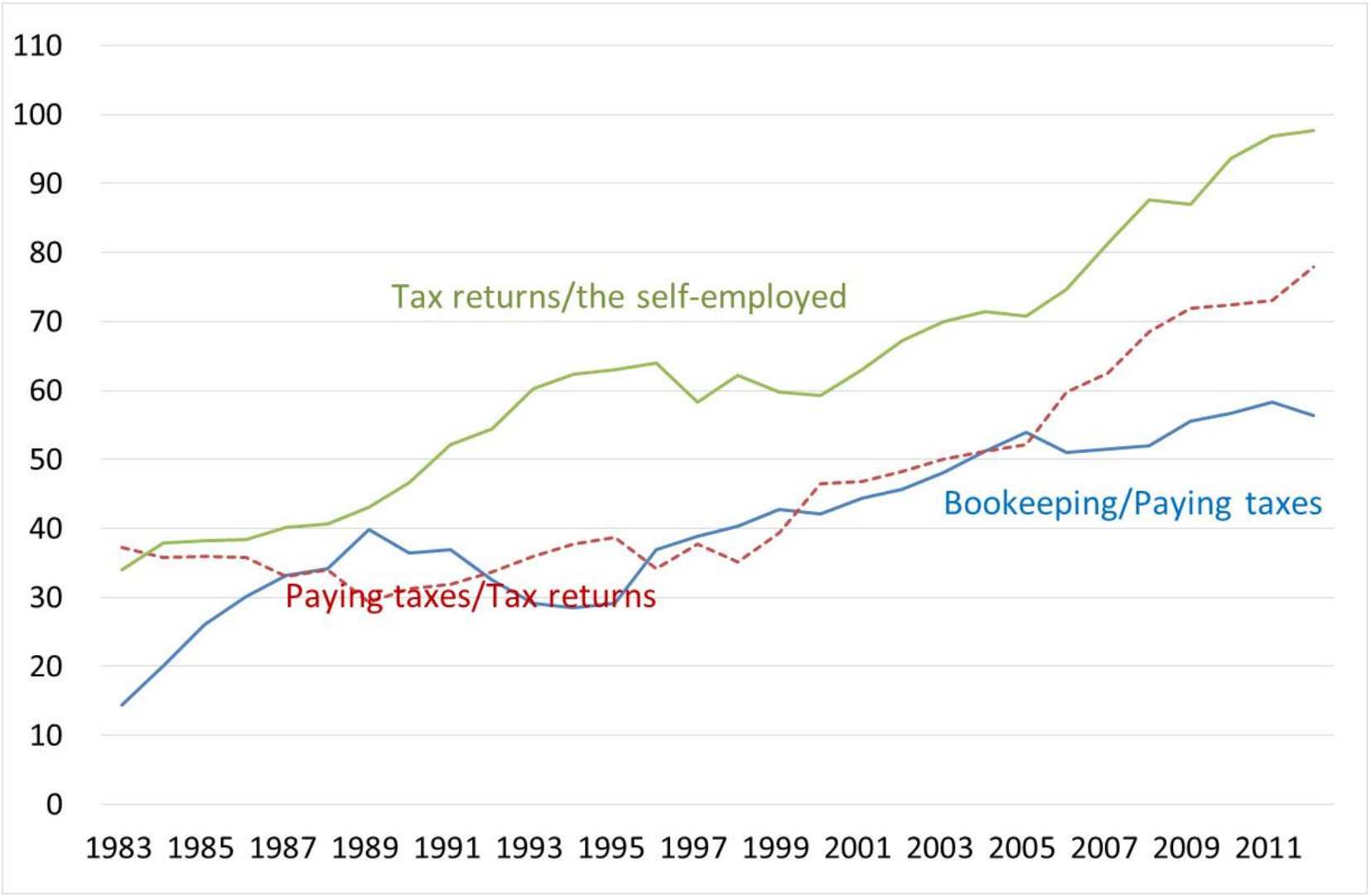
What policies can reduce evasion?

- Various policies already in use in Korea:
  - Encourage more firms to list on the stock exchanges
  - Subsidize use of credit cards (cash receipts)
  - Subsidize firms to adopt electronic reporting of transactions to the government
  - Presumptive value-added taxes at reduced rate, to pull more firms into the formal sector
- Other suggestions

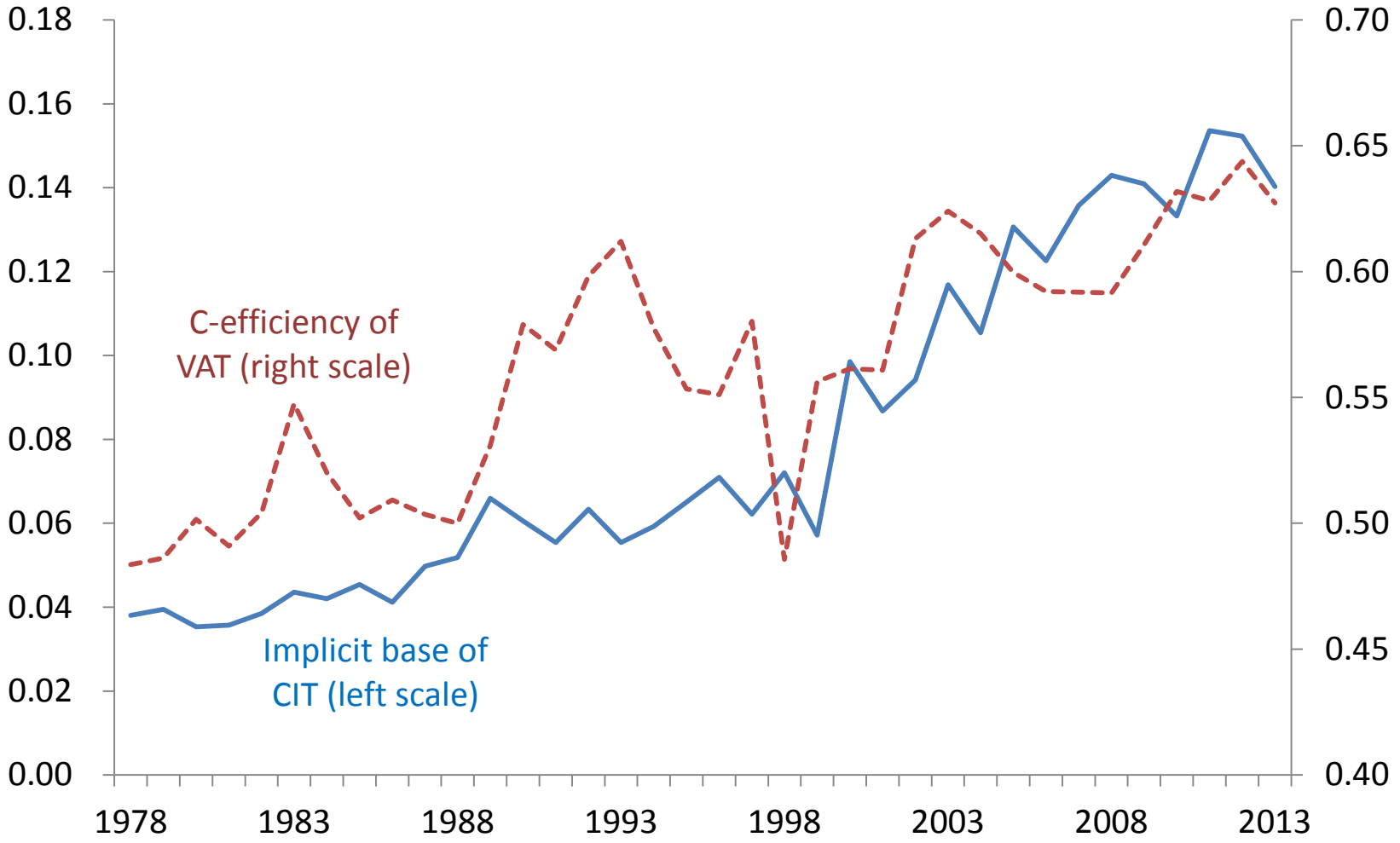
Tax expenditures, 2014

	Central government tax revenue		Tax expenditure		
	billion won	%	billion won	%	
	(1)	(2)	(3)	(4)	(3)/(1)
Personal income tax	53,325	25.9	17,490	50.9	**32.8**
Corporate income tax	42,650	20.8	7,090	20.6	16.6
Value added tax	57,139	27.8	7,691	22.4	13.5
Other taxes	52,404	25.5	2,067	6.0	3.9
Total tax revenue	205,518	100.0	34,338	100.0	16.7

Compliance among the self-employed



Compliance with VAT and corporate tax in Korea



Why Is Corporate Tax Base Large?

- Revenue Raiser (3.2% of GDP; 12.8% of taxes)
  - Even higher than developing country average
- Easy to monitor capital-intensive firms
  - High ETRs on these firm which are less likely to evade taxes; lower rates on the rest (shifting tax burden from labor to capital income)
  - Such distortions can be offset through other policies favoring firms paying more taxes
- Leaving personal income within corporations
- Discriminate against foreign firms

Corporate Tax Burden, 2014

Tax base	Taxpayers		Taxes paid	
(100 million won)	(Number of firms)	(%)	(billion won)	(%)
Low bracket(10%)	**481,868**	**87.54**	**1,111**	**3.13**
Deficit	259,433	47.13	63	0.18
0-2	222,435	40.41	1,048	2.96
Middle (20%)	**67,592**	**12.28**	**10,398**	**29.34**
2-20	60,260	10.95	4,097	11.56
20-200	7,332	1.33	6,302	17.78
High bracket(22%)	**1,012**	**0.18**	**23,935**	**67.53**
200-500	595	0.11	3,160	8.92
500-1000	201	0.04	2,602	7.34
1000-5000	174	0.03	6,226	17.57
5000-	42	0.01	11,947	33.71
Total	550,472	100.00	35,444	100.00

Personal and Corporate Tax Rates

	Personal Income Tax		Corporate Income Tax			(2)-(4)	(2)-(5)
	Top Rate	Top Rate Inclusive of Subcharges[1]	Top Rate	Top Rate Inclusive of Subcharges[1]	Bottom Rate Inclusive of Subcharges[1]		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1981	62.0	79.1	40.0	53.0	31.9	**26.1**	**47.2**
1991	50.0	53.8	34.0	36.6	21.5	**17.2**	**32.3**
1995	45.0	48.4	30.0	34.3	19.4	**14.1**	**29.0**
1996	40.0	44.0	28.0	30.8	17.6	**13.2**	**26.4**
2002	36.0	39.6	27.0	29.7	16.5	**9.9**	**23.1**
2005	35.0	38.5	25.0	27.5	14.3	**11.0**	**24.2**
2008	35.0	38.5	25.0	27.5	12.1	**11.0**	**26.4**
2009	35.0	38.5	22.0	24.2	12.1	**14.3**	**26.4**
2010	35.0	38.5	22.0	24.2	11.0	**14.3**	**27.5**
2012	38.0	41.8	22.0	24.2	11.0	**17.6**	**30.8**

Note: 1. Currently, a 10 percent local income tax is levied on personal/corporate income taxes payable.

Better coordination of personal and corporate tax rates

- To avoid distortions to where income is reported, tax rate should be the same regardless of whether income is reported as personal or corporate
  - Current rate difference, in contrast, encourages shifting expenses to non-corporate firms, e.g. non-corporate investment funds, and income to corporate firms.
  - Low corporate rate undermines accurate reporting of wages paid to high-bracket employees
  - Rate difference helps explain high corporate tax base

Raising corporate rate and reducing personal tax rate?

- Possible compensating tax changes: corporate
  - Introduce expensing for new investment, linked to an increase in the corporate tax rate
  - Cut taxes on financial sector, linked to an increase in the corporate tax rate
- Possible compensating tax changes: personal
  - Introduce excise taxes on luxury goods, linked to a cut in top personal tax rates
  - Cut wage subsidies, and compensate by cutting personal tax rates

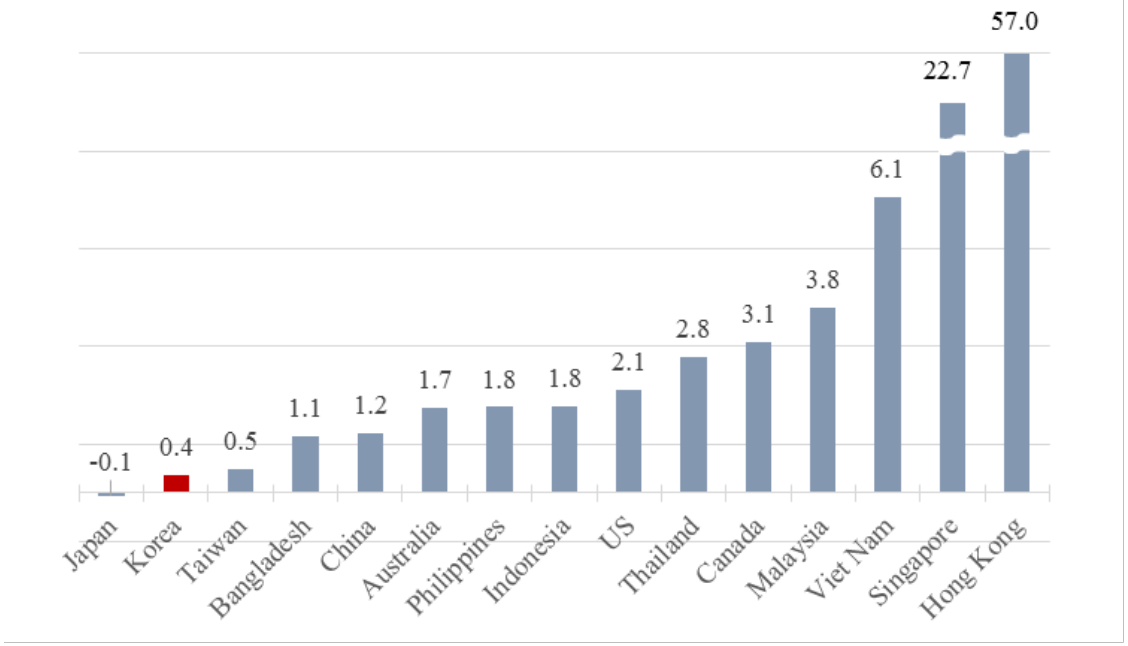
Note on international tax issues

- Multinationals face incentive to shift reported earnings abroad
  - To lessen these distortions, repatriated profits should be subject to domestic corporate taxes, with a credit for taxes paid abroad to abide by OECD rules
- Korea can also face threat of portfolio investments shifting abroad to avoid domestic taxes. Can justify cut in taxes on personal financial income.

Domestic firms vs. foreign firms

- Tax incentives for FDI
  - Effectiveness? Rather, tax base erosion?
  - Focus on high-tech industries
- Korea was less enthusiastic about inviting foreign firms
  - Local conglomerates (*chaebol*) emerge
  - High compliance; major source of revenue
  - Favorable access to bank loans; Protect through tariffs; Protection from competition from FDI

Figure. FDI Inward flows, 2015 (as a Percentage of GDP)



Source: UNCTAD database

Mobility of rents

- Profits (taxes) are highly concentrated
  - 42/174 firms (0.01/0.03%) – 33.7/17.6% of tax
- Immobile rents?
  - Return on entrepreneurial efforts vs. locally "embedded" (linked to government, affiliates, etc.)
  - Foreign ownership 33%; Samsung elect. 49.7%
- Rent subject to managerial diversion
  - less mobile? (Korean firm data: corporate governance affects the effects of tax-induced rents on firm value - extent of rent diversion)

Taxation of Financial Sector

- Significant source of tax revenue in Korea
  - Gross receipts; Financial Transactions
- Justifications for these taxes questionable
  - Tax discourages use of financial sector, leading firms to operate instead in the cash economy
  - To neutralize this incentive to shift into the informal sector, other tax rates must fall
  - A drop in taxes on financial sector pulls firms into the formal sector

Earmarking, etc.

- Earmarked taxes have been important source of tax revenue in Korea (Bird and Jun 2005)
  - About 17% of revenue from such taxes
- But, T&E linkage is mostly loose and not based on benefit rationale
  - Earmarked funds are inframarginal; mostly used for **compliance** purpose
  - Fiscal transparency/accountability issues remain
- Surcharges; Transactions taxes