

# Comments on VAT and Indirect Taxes

Motohiro Sato  
Hitotsubashi University

# Why VAT?

- VAT has been regarded as the most appropriate government revenue sources (at least from the economic standpoint)
- VAT is (i) market preserving (i.e. less distortionary) whereas (ii) generating adequate revenue.

# Washington Consensus?

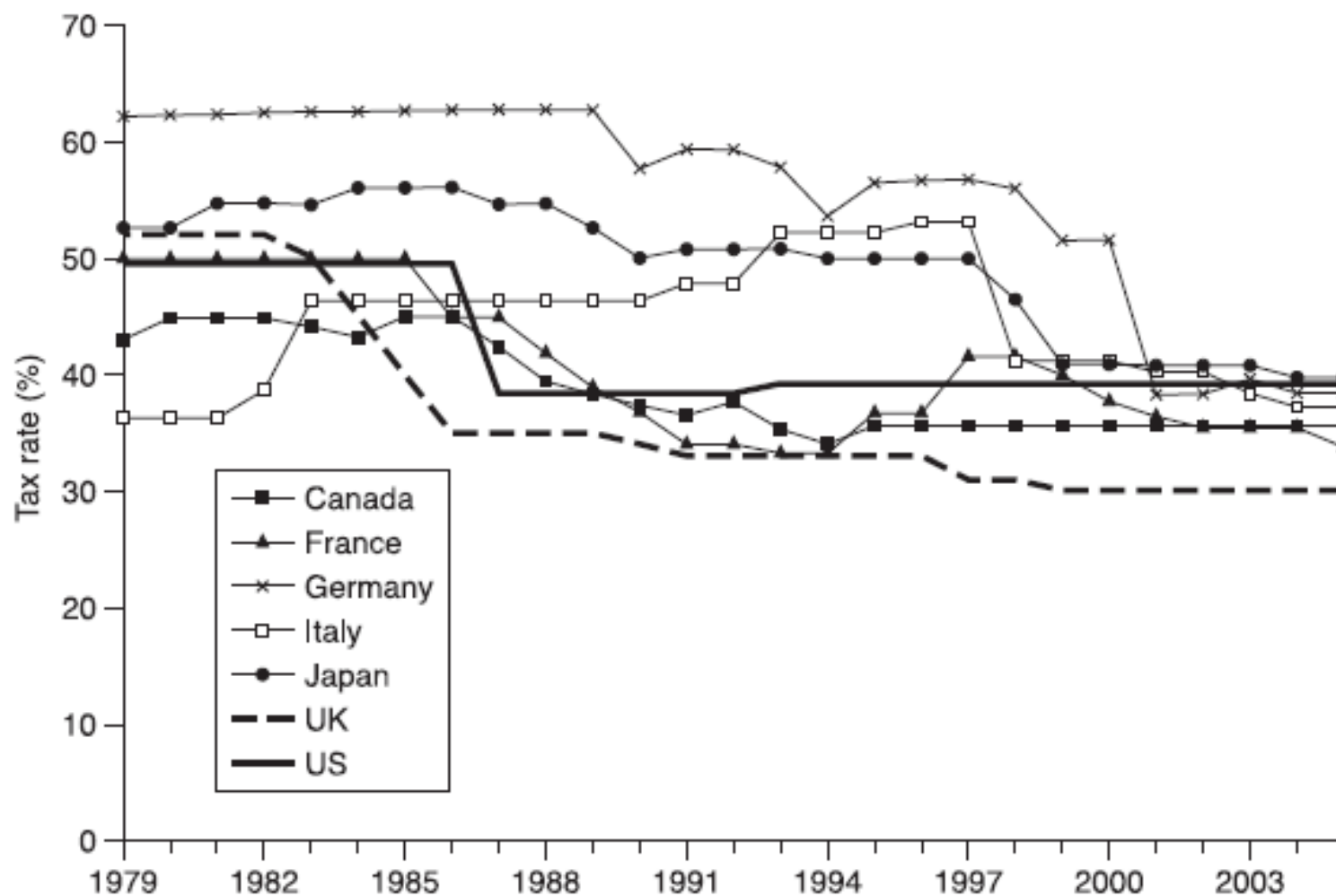
- It has been proposed that VAT should replace (a) international trade taxes (import and export duties) and (b) turnover/ production taxes and (c) excise taxes.
- VAT is more desirable since it preserves production efficiency and does distort less consumption (if tax rate is uniform and exemption is not much) .

# VAT and Globalization

- With economic globalization, it is getting harder to tax mobile factors such as capital.  
⇒ International tax competition
- Taxation on mobile resources is becoming more distrotional, distorting resource allocation and increasing tax avoidance activities.
- VAT as taxation on domestic consumption may be suitable to the era of economic globalization.

FIGURE 2

*Statutory corporate tax rates*



Source: Devereux, Griffith and Klemm (2002), as updated on the IFS website, August 2005, table A1 ([http://www.ifs.org.uk/publications.php?publication\\_id=3210](http://www.ifs.org.uk/publications.php?publication_id=3210)).

Source Auerbach (2006)

# Different Faces of VAT

- VAT accrue to consumers, serving as consumption tax.
- VAT is equivalent to taxation on (i) wage, (ii) cash flow and (iii) old capital.
- VAT is tax on intermediate inputs for non-registered business/informal sector.

# Theory and Evidence

- Theory: VAT is non-distortionary, preserving economic growth.
- Evidence: Kneller et al (1999) “Fiscal policy and growth: evidence from OECD countries,” J of Public Economics 74.
- Theory: VAT generates adequate revenue.
- Evidence: Keen and Lockwood(2007)” The Value-Added Tax: Its Causes and Consequences,”  
IMF Working Paper

# Kneller et al (1999)

- (i) Tax on income and profit
- (ii) Payroll tax
- (iii) Social security contribution and
- (iv) Tax on property

Tax on domestic goods and services

Table 3  
Regression results

Estimation technique: 5-year averages, two-way FE

Dependent variable: Per capita growth

Omitted Fiscal Variable:	Non-distortionary taxation	Non-productive expenditures	Non-dis. taxation and non-prod. expenditures
Initial GDP p.c.	-0.490 (2.79)	-0.490 (2.79)	-0.483 (2.82)
Investment	-0.020 (0.33)	-0.020 (0.33)	-0.020 (0.34)
Labour force growth	-0.327 (1.09)	-0.327 (1.09)	-0.336 (1.14)
Lending minus repayments	0.417 (1.82)	0.380 (2.13)	0.384 (2.18)
Other revenues	-0.154 (0.81)	-0.117 (1.12)	-0.118 (1.13)
Other expenditures	0.315 (2.00)	0.279 (2.42)	0.289 (2.75)
Budget surplus	0.446 (2.79)	0.410 (4.60)	0.416 (4.93)
Distortionary taxation	-0.446 (2.79)	-0.410 (4.21)	-0.410 (4.37)
Non-distortionary taxation	-	0.037 (0.23)	-
Productive expenditures	0.290 (1.98)	0.253 (1.95)	0.268 (2.43)
Non-productive expenditures	0.037 (0.23)	-	-
Adjusted $R^2$	0.602	0.602	0.621
No. of observations	98	98	98

Note: *t*-statistics in parentheses. For definitions of variables see Table 2. Observations are 5-year averages 1970–95. Country and time intercepts are included in the regression.



# Keen and Lockwood(2007)

$$r_{it} = \alpha V_{it} + \beta' X_{it} + \beta'_V V_{it} X_{it} + \mu_i + \lambda_t + u_{it}$$

Log Revenue ratio To GDP

VAT Dummy

Interaction Term

Per capita income

Lagged dependent variable

Sample: Unbalanced panel of 143 countries over 1975~2000

	1	2	3
ln(YPC)	-0.126 (4.05)**	-0.088 (4.44)**	-0.103 (4.93)**
OPEN	0.175 (4.83)**	0.122 (5.16)**	0.123 (5.24)**
AGR	-1.199 (6.04)**	-0.546 (4.25)**	-0.592 (4.33)**
V	0.034 (2.70)**	0.017 (2.07)*	-0.054 (1.32)
ln(r1)		0.626 (13.65)**	0.619 (13.24)**
ln(YPC)*V			0.025 (2.07)*
OPEN*V			0.024 (1.69)
AGR*V			0.109 (0.94)
FED*V			0.011 (0.76)

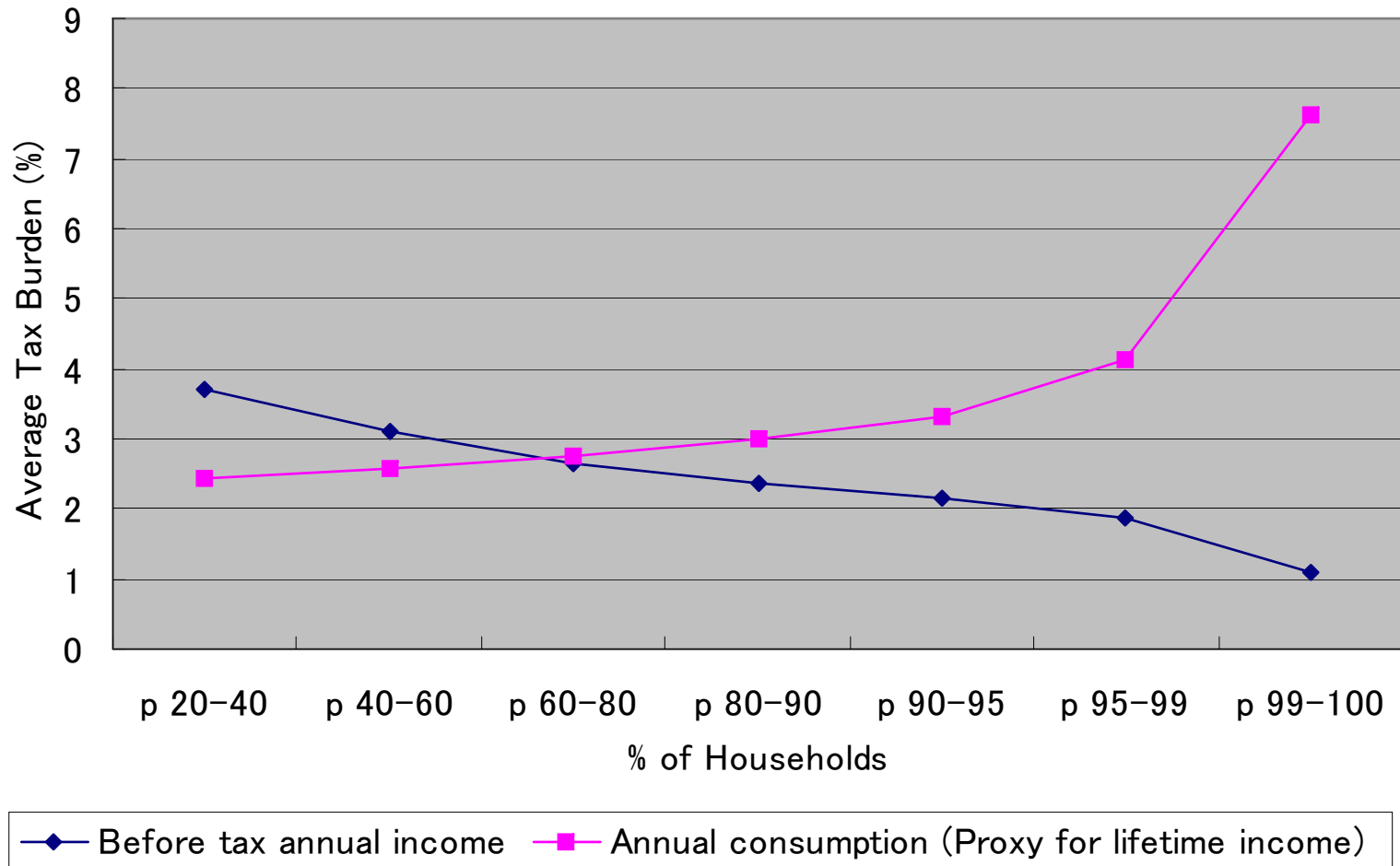
# Facts of Japan's VAT

- Named “Consumption tax”
- Uniform tax rate at 5%
- Tax revenue sharing between the central and prefecture governments.
- Less exemption and lower threshold
- Subtraction method instead of invoice and credit method.

# Distributive Consequence

- VAT is regarded as regressive in the sense that tax payment in proportion of annual income is higher for low (annual) income households.
- If measured by life time income (or its proxy), however, VAT is not much regressive.
- How to measure equity of tax?  $\Rightarrow$  This may be the matter of consensus rather than science.

Distributive Impliaction of Consumption Tax in Japan (FY2004)



Source: Fumio Otake (Osaka University) presented in Government Tax Commission

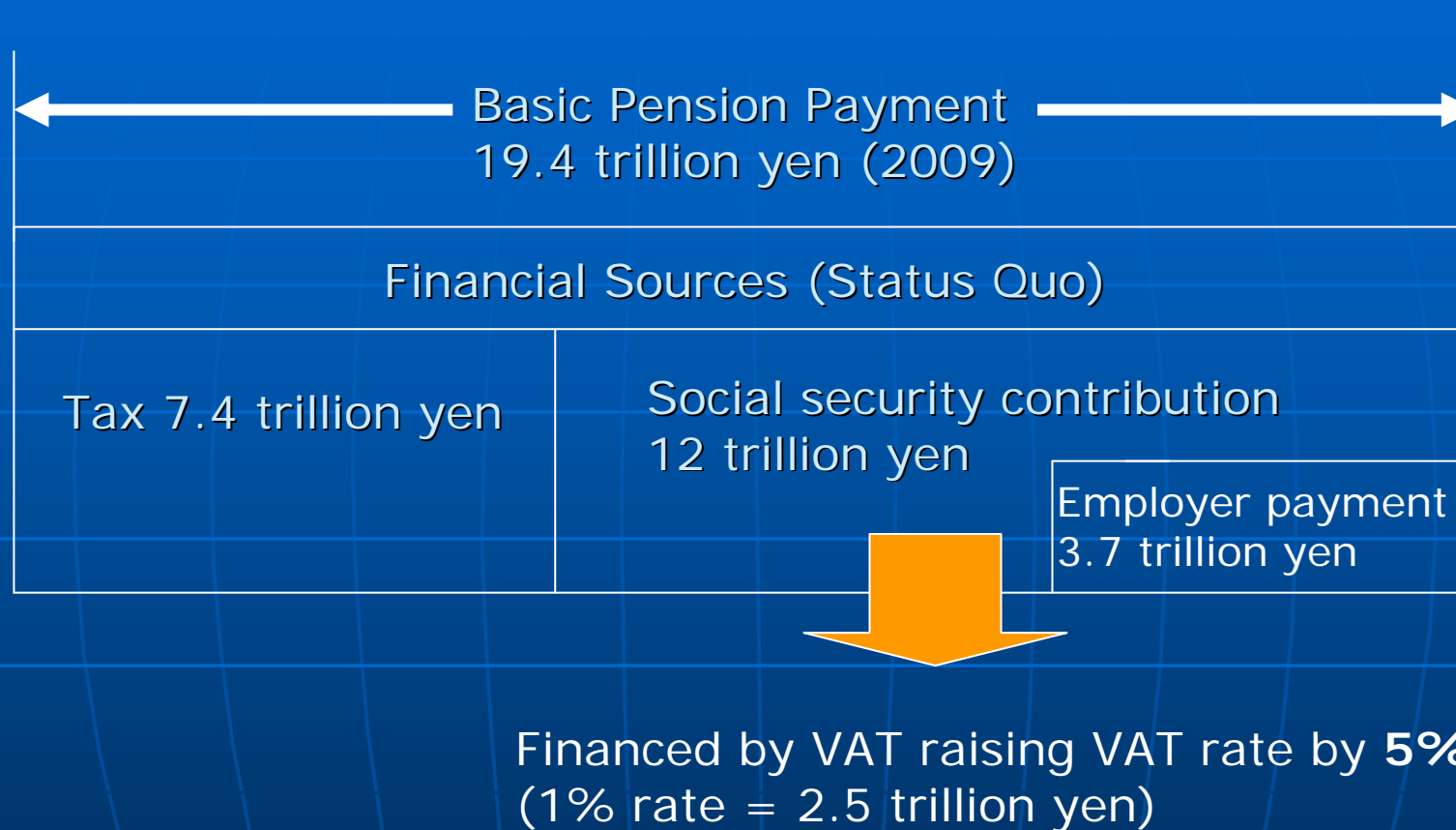
# Compensation for Low income

- How to deal with regressive nature of VAT?
- More exemption/Reduced tax rate  
⇒ Distort consumption/may benefit high income persons as well.
- Tax credit/benefit targeted to low income taxpayers: ex. GST credit in Canada  
⇒ How to deal with income gap/compliance?

# Social VAT

- There has been proposal that VAT should be earmarked to finance basic public pension (and other social spending).
  - VAT like ?? in France will assure steady/stable revenue to meet increasing demand for public pension/ social spending, but argument for social VAT is rather political.
- ⇒ Social VAT may ease social consensus to raise VAT rate. (Many regard VAT increase to finance public deficit inequitable.)

# Social VAT



# Local VAT

- In Japan, 1% out of 5% tax rate is local consumption tax.
- Local consumption tax is collected by the central government and distributed according to consumption index among prefecture governments.
- There is discussion if local VAT should be enhanced to replace local business taxes.



# Questions and Comments

- Should VAT be earmarked to social spending?
- Is VAT a good local tax?
- Is refundable tax credit for low income person feasible policy option when VAT rate is increased?
- Can VAT be a major tax revenue source in era of globalization and aging?