## Tax Rates!

## MVV182K Property-related Taxation: Issues and Trends <br> Masaryk University Brno, Czech Republic

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## Introduction (1)

- Tax base
- Property discovery
- Valuation
- Assessment
- Tax rates
- Tax relief
- Billing
- Collection
- Enforcement
- System Management


## Introduction (2)

- Tax rate = converting assessment (i.e. assessed value) into a tax bill
- Determining an appropriate tax rate constitutes a critically important step in the context of any property tax system
- The tax rate depends primarily on
- the revenue requirements of the taxing authority
- the nature and extent of the tax base
- A further important policy issue: How often should tax rates be determined?


## The Revenue Mobilization Model



CR: Coverage ratio
VR: Valuation ratio
Col R: Collection ratio

## Values versus Tax Rate (1)



## Values versus Tax Rate (2)



## Values versus Tax Rate (3)




Base Coverage Valuation Tax rate Collection
Tax Effort


Base Coverage Valuation Tax rate Collection
Tax Effort


Base Coverage Valuation Tax rate Collection
Tax Effort


Base Coverage Valuation Tax rate Collection
Tax Effort

## Base v Rate v Revenue

- Revenue and tax base are the most important determinants for the tax rate
- The approach to tax base:
- Narrow base = High nominal rate or rates
- Broad base = Low nominal rate or rates
- The approach to revenue:
- "How much can we get?" - primary source of revenue
- "How much do we need?" = residual source of revenue


## What should the tax rate be?

## Examples of Residential Tax Rates

- Kingstown, Saint Vincent (2014): 0.08\%
- Dar es Salaam, Tanzania (2012): 0.1\%
- Cape Town, South Africa (2014): 0.45\%
- Toronto, Canada (2015): 0.7056037\%
- Nairobi, Kenya (2016): 17\%
- Mumbai, India (2011): 276\%


## Examples: Residential Tax Rates...

- Kingstown, Saint Vincent (2014): 0.08\%
- Revenue neutral tax reform
- Dar es Salaam, Tanzania (2012): 0.1\%
- Tax base - capital value of buildings only; very poor community
- Cape Town, South Africa (2014): 0.45\%
- Market value, first year of new valuation roll
- Toronto, Canada (2015): 0.7056037\%
- Market value; affluent community; tax also funds education
- Nairobi, Kenya (2016): 17\%
- Land value only; last valuation done in 1982
- Mumbai, India (2011): 276\%
- Annual rental value; rent control enforces an artificial ceiling value

So, do not compare apples with pears!

## Tax Rate Comparisons

- Rate comparisons are difficult because -
- Tax bases differ (nature)
- Narrow base versus broad base (i.e. extent)
- Valuation assessment levels may differ
- Ages of valuation rolls may differ
- Importance of property tax as a source of revenue differ
- Expenditure responsibilities differ
- Expenditure needs differ
- Tax administration may also be a determinant -
- Weak collection may necessitate higher rates
- Improved base coverage may result in lower rates
- Regular revaluations may result in lower nominal rates


## Relationship: Tax Rate and Tax Base

$$
\begin{array}{llr}
\text { Land }(\$ 200,000)+\text { Building }(\$ 800,000) & =\$ 1,000,000 \\
\text { Annual yield is } 10 \% & =\$ 100,000 \\
& =\$ 1,000,000 \\
\text { Base = Total Value } & =\$ r & 10,000 \\
\text { Tax @ 1\% } & =\$ & 200,000 \\
& =\$ & 10,000 \\
\text { Base = Land Value } & & \\
\text { Tax @ 5\% } & \$ 800,000 \\
& =\$ & 10,000 \\
\text { Base = Building value } & & \\
\text { Tax @ 1,25\% } & =\$ & 100,000 \\
& =\$ & 10,000
\end{array}
$$

## Tax Rate Design

# Flat rate or progressive rates (i.e., sliding scale)? 

and

## Uniform rate or differential rates?

## Progressive Tax Rates

- Basis for progressive rates:
- Usually value, but could be area ( $\mathrm{m}^{2}$ )
- Why use progressive property tax rates?
- What is the objective with the tax?
- Perceived ability to pay
- Land reform?
- Administration
- Single versus multiple-ownership
- Linking multiple properties to a single owner
- Billing and collection
- Complexity (cost and opportunities for corruption)
- Examples:
- Armenia; Morocco


## Differential Tax Rates

- Basis for differential rates:
- Property use categories
- Actual use
- Zoned use
- Land versus improvements
- Size
- Value
- Reasons for differentiation?
- Issues?


## City of Perth, Western Australia Rates for 2015/2016

| Land use category | Rate <br> (c/\$ of gross rental value) | Ratio in relation <br> to residential |
| :--- | :---: | :---: |
| Residential | 4.4107 | $1: 1$ |
| Hotel | 5.0032 | $1: 1.13$ |
| Commercial | 5.0032 | $1: 1.13$ |
| Retail | 5.0032 | $1: 1.13$ |
| Office | 2.9079 | $1: 0.66$ |
| Vacant land | 5.8157 | $1: 1.32$ |

Source: www.perth.wa.gov.wa (2015)

## City of Toronto, Ontario, Canada - 2015 Property Tax Rates

| Description | City Tax Rate \% | Education Tax <br> Rate \% | Transit Tax Rate \% | Total Tax Rate \% |
| :--- | :---: | :---: | :---: | :---: |
| Residential | $0.5081190 \%$ | $0.1950000 \%$ | $0.0024847 \%$ | $0.7056037 \%$ |
| Multi-Residential | $1.5290188 \%$ | $0.1950000 \%$ | $0.0025294 \%$ | $1.7265482 \%$ |
| New <br> Multi-Residential | $0.5081190 \%$ | $0.1950000 \%$ | $0.0024847 \%$ | $0.7056037 \%$ |
| Commercial <br> General | $1.5361843 \%$ | $1.2278260 \%$ | $0.0025294 \%$ | $2.7665397 \%$ |
| Residual <br> Commercial - <br> Band 1 | $1.2811685 \%$ | $1.2278260 \%$ | $0.0021095 \%$ | $2.5111040 \%$ |
| Residual <br> Commercial - <br> Band 2 | $1.5361843 \%$ | $1.2278260 \%$ | $0.0025294 \%$ | $2.7665397 \%$ |
| Industrial | $1.5301969 \%$ | $1.2946100 \%$ | $0.0025294 \%$ | $2.8273363 \%$ |
| Pipelines | $0.9773995 \%$ | $1.5065730 \%$ | $0.0047794 \%$ | $2.4887519 \%$ |
| Farmlands | $0.1270297 \%$ | $0.0487500 \%$ | $0.0006212 \%$ | $0.1764009 \%$ |
| Managed Forests | $0.1270297 \%$ | $0.0487500 \%$ | $0.0006212 \%$ | $0.1764009 \%$ |

## Tax Rates and Ratios for 2015/2016: 4 Metropolitan Municipalities in South Africa

| Property <br> categories | Cape Town |  | eThekwini |  | Johannesburg |  | Tshwane |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $c / R$ | Ratio | $c / R$ | Ratio | $c / R$ | Ratio | $c / R$ | Ratio |
| Residential | 0.6931 | 1.00 | 1,115 | 1.000 | 0.6531 | 1.00 | 1,013 | 1.00 |
| Com \& Bus | 1.2508 | 1,80 | 2.528 | 2.267 | 1.8287 | 2,80 | 3,056 | 3.02 |
| Industrial | 1.2508 | 1,80 | 3,262 | 2.926 | 1.8287 | 2,80 | 3,056 | 3.02 |
| Vacant land | 1.2508 | 1,80 | 4.998 | 4.483 | 2.6124 | 4.00 | 6,573 | 6.49 |
| Agricultural | 0.1251 | 0.18 | 0.279 | 0.250 | 0.1632 | 0.25 | 0.253 | 0.25 |
| State- <br> owned | - | - | - | - | 0.9796 | 1.50 | 3,056 | 3.02 |
| PSI | 0.2234 | 0.18 | 0.279 | 0.250 | 0.1632 | 0.25 | - | - |

Source: Metropolitan Municipalities

## Split-Rate Tax Rates: Example

## Mbabane, Eswatini Tax Rates for 2014/2015

| Category | Land Value | Improvements |
| :--- | :---: | :---: |
| Developed Residential | $1.29 \%$ | $0.21 \%$ |
| Undeveloped Residential | $1.51 \%$ | - |
| Developed Commercial | $2.53 \%$ | $0.7 \%$ |
| Undeveloped Commercial | $2.22 \%$ | - |
| Public Open Spaces | $1.82 \%$ | - |

Source: City of Mbabane

## Who sets the Tax Rate(s)?

- Central government
- Rate fixed in law (e.g. Cameroon, Egypt, Uganda)
- Issues?
- Shared tax versus shared revenue
- Local government:
- Direct oversight and/or central government approval (e.g. Botswana, Namibia)
- Indirect oversight (e.g. South Africa)
- Ratios pertaining to differential rates
- Compliance with constitutional guidelines
- Statutory limitations (maximum and/or minimum rates) (e.g. Uganda)
- Citizen oversight (e.g. California)


## Advantages and disadvantages?

## How are Rates Set?

"Budget residual option"

| Tax rate | $=\frac{(\text { Expenditure }- \text { other revenues })}{\text { Total assessed value }}$ |
| ---: | :--- |
| Tax rate | $=\frac{(\$ 50,000,000-\$ 20,000,000)}{\$ 2,000,000,000}$ |
|  | $=0.015$ |
|  | $=1.5 \%$ |
|  | $=1.5 \mathrm{c}$ in the $\$$ |

## Nominal versus Effective Rates

- Whether set locally or centrally, and whether fixed or set annually, nominal tax rates tend to be higher than effective tax rates
- Effective rate = Tax amount/Property value
- Reasons:
- Value reductions
- Assessment ratios
- Rebates
- Exemptions

| Example |  |
| :--- | :--- |
| Property value | $\$ 100,000$ |
| Value reduction | $\$ 15,000$ |
| Assessment <br> ratio | 0.8 |
| Nominal tax rate | $1.5 \%$ |
| Rebate | $10 \%$ |
| Tax Amount | $\$ 918$ |
| Effective tax rate | $\$ 918 / \$ 100,000$ <br> $=0.918 \%$ |

## Tax Rates Issues

- Multiplicity of differential tax rates
- Many countries allow for differential rates
- Armenia; Poland
- Static tax rates
- Armenia
- Centrally- or locally-determined tax rates
- Central: Armenia
- Local: Some central (or provincial/state) oversight or control over locally-set tax rates

