

## Appendix

The property tax is assessed on the value of residential real property. There is significant heterogeneity in the administration of the tax across jurisdictions. Abstracting from this heterogeneity, property tax revenue can be defined as being equal to the effective tax rate times the market value of property:

$$T = \tau V$$

Where  $\tau$  is the effective property tax rate and  $V$  is the market value of taxable property. Holding the tax rate constant, when the market value of property increases, tax revenue increases.

Policymakers do not have to accept this mechanical increase; they may choose to offset some or all of the mechanical change by adjusting the effective tax rate. The change in tax revenue is therefore equal to the sum of the mechanical and policy offset components:

$$\Delta T = \tau \Delta V + \Delta \tau V$$

Where  $\tau \Delta V$  is the mechanical change in tax revenue and  $\Delta \tau V$  is the change caused by a change in the effective rate – the policy change.