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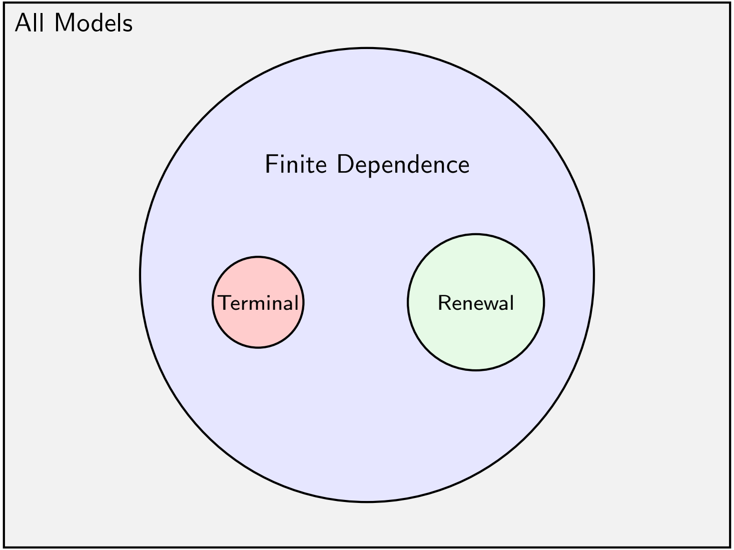
- Typically can get models where $\tau = 3$, meaning only need 2-period-ahead CCPs



Terminal and Renewal are *disjoint* special cases

State cancellation for Rust bus engine model:

	t	$t+1$	V_{t+2}
$v_{0t}(X_t)$:	(maintain)	(replace)	
	X_t	X_{t+1}	0

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When taking $v_{1t}(X_t) - v_{0t}(X_t)$, both paths lead to state $X_{t+2} = 0$

V_{t+2}'s cancel, so only need $u_j(X_{t+1})$ and $\log(p_j(X_{t+1})$ terms—no backward recursion

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Can we get this model to satisfy finite dependence?

State cancellation:

	t	$t+1$	$t+2$	V_{t+3}
$v_{ht}(X_t)$:	(home)	(work)	(home)	
	exper_t	exper_t	$\text{exper}_t + 1$	$\text{exper}_t + 1$
	d_{t-1}	$d_t = h$	$d_{t+1} = w$	$d_{t+2} = h$

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	t	$t+1$	$t+2$	V_{t+3}
$v_{ht}(X_t)$:	(home)	(work)	(home)	
	exper_t	exper_t	$\text{exper}_t + 1$	$\text{exper}_t + 1$
	d_{t-1}	$d_t = h$	$d_{t+1} = w$	$d_{t+2} = h$
$v_{wt}(X_t)$:	(work)	(home)	(home)	
	exper_t	$\text{exper}_t + 1$	$\text{exper}_t + 1$	$\text{exper}_t + 1$
	d_{t-1}	$d_t = w$	$d_{t+1} = h$	$d_{t+2} = h$

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$v_{ht}(X_t)$:	(home)	(work)	(home)	
	exper_t	exper_t	$\text{exper}_t + 1$	$\text{exper}_t + 1$
	d_{t-1}	$d_t = h$	$d_{t+1} = w$	$d_{t+2} = h$
$v_{wt}(X_t)$:	(work)	(home)	(home)	
	exper_t	$\text{exper}_t + 1$	$\text{exper}_t + 1$	$\text{exper}_t + 1$
	d_{t-1}	$d_t = w$	$d_{t+1} = h$	$d_{t+2} = h$

When taking $v_{wt}(X_t) - v_{ht}(X_t)$, both paths lead to same X_{t+3}'s

V_{t+3}'s cancel, so only need $u_j(X_{t+1})$, $u_j(X_{t+2})$, $\log(p_j(X_{t+1})$ and $\log(p_j(X_{t+2})$

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Key assumption for this model was no depreciation of labor market experience

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- Both weight different choice paths such that weights sum to 1
    - Weights need not be in unit interval