# Asset Prices, Local Prospects and the Geography of Housing Dynamics

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#### Outline

The Paper

Major Comments

Minor Comments

Final Remarks

## Empirical Analysis in a Nutshell...

	Stocks		Housing					
x <sup>global</sup>	-0.0347*	0.0241***	0.0081**	0.0435	0.0567*			
X	[-1.92]	[3.77]	[2.26]	[1.39]	[1.81]			
X <sub>msa</sub>		0.0126***						

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		0.0126***						
X <sub>msa</sub>		[6.29]						
global Xmsa			0.0155***	0.0141***	0.0175***			
Xmsa			[10.42]	[8.43]	[8.73]			
local			0.0036**	0.0038**	0.0036**			
X <sup>local</sup> 			[2.21]	[2.34]	[2.24]			

- 1. Measure:  $\downarrow x_t = pd_t \implies \downarrow$  long-run growth
- 2. Finding:  $\downarrow$  expected growth  $\implies \downarrow$  housing risk premium
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#### Mechanism in a Nutshell...

$$x_{t+1} = \rho x_t + \epsilon_{x,t}$$

$$\Delta c_{t+1} = \mu_c + \phi_c \cdot x_t + \epsilon_{c,t}$$

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#### Contribution

• How do prices respond to long-run growth shocks?

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- 2. Finding: ↑ equity premium ⇒ ↓ housing risk premium
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ho d_t &= \sum_{j=0}^{\infty} 
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$$\mu_{t+1}^{\mathrm{e}} = \phi_{\mathrm{e}} \cdot \mu_{t}^{\mathrm{e}} + \sigma_{\mathrm{e}} \cdot \epsilon_{t+1}^{\mathrm{e}}$$

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Major Comments

	$\epsilon^{e}$	$\epsilon^{h}$	$\epsilon^{g}$	Empirical Results	Implications
$\epsilon^e$	1				
$\epsilon^{h}$	0.5	1			
$\epsilon^{g}$	0.42	0.42	1		

	$\epsilon^{e}$	$\epsilon^{h}$	$\epsilon^{g}$	Empirical Result	s Implications			
$\epsilon^e$	1			$\rho\left(pd,g\right)=0.$	27			
$\epsilon^{h}$		1		$\rho(pd,\mu^e) = -0$	.81			
$\epsilon^{\mathbf{g}}$	0.42	0.42	1	$ \rho \left( pd, \mu^h \right) = -0 $ $ \rho \left( pd, ps \right) = 0 $	.30			
				$\rho(pd, ps) = 0.$	49			

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$\epsilon^{h}$	0.5	1		$ ho\left( extit{pd}, \mu^{ extit{e}} ight) =$		$\rho\left(g,ps\right) =$	0.36
$\epsilon^{\mathbf{g}}$	0.42	0.42	1	$\rho\left(pd,\mu^{h}\right) = \\ \rho\left(pd,ps\right) = $	-0.30		
				$\rho\left( pd,ps\right) =$	0.49		

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$\epsilon^e$	1			$\rho\left(pd,g\right) =$	0.27	$\rho\left(\mathbf{g},\mu^{\mathbf{h}}\right)=$	0.35
$\epsilon^{h}$	0.5	1		$ ho\left( extit{pd},\mu^{ extit{e}} ight)=$		$\rho(g, ps) =$	0.36
$\epsilon^{g}$	0.42	0.42	1	$\rho\left(pd,\mu^{h}\right) = \\ \rho\left(pd,ps\right) = $	-0.30		
				$\rho(pd, ps) =$	0.49		
$\epsilon^e$	1						
$\epsilon^{h}$	-0.5	1					
$\epsilon^{g}$	0.42	0.42	1				

	$\epsilon^{e}$	$\epsilon^{h}$	$\epsilon^{g}$	Empirical Re	Empirical Results		ns	
$\epsilon^e$	1			$\rho\left(pd,g\right) =$	0.27	$\rho\left(\mathbf{g},\mu^{\mathbf{h}}\right)=$	0.35	
$\epsilon^{h}$	0.5	1		$ ho\left( extit{pd},\mu^{ extit{e}} ight)=$	-0.81	$ ho\left( g,ps ight) =% \left( g,ps \right) =% \left( g,ps ight) $	0.36	
$\epsilon^{g}$	0.42	0.42	1	$\rho\left(pd,\mu^{h}\right)=0$	-0.30			
				$\rho\left(pd,ps\right) =$	0.49			
$\epsilon^{e}$	1			$\rho\left( pd,g\right) =$	0.27			
$\epsilon^{h}$	-0.5			$ ho\left( extit{pd},\mu^{ extit{e}} ight)=$				
$\epsilon^{\mathbf{g}}$	0.42	0.42	1	$\rho\left(pd,\mu^{h}\right)=0$	0.74			
				$\rho\left(pd,\mu^{h}\right) = \\ \rho\left(pd,ps\right) =$	-0.54			

		h	σ.	5				
	$\epsilon^e$	$\epsilon^{h}$	$\epsilon^{g}$	Empirical Re	Empirical Results		Implications	
$\epsilon^e$	1			$\rho\left(pd,g\right) =$	0.27	$\rho\left(\mathbf{g},\mu^{\mathbf{h}}\right)=$	0.35	
$\epsilon^{h}$	0.5	1		$ ho\left( extit{pd},\mu^{ extit{e}} ight)=$	-0.81	$ ho\left( g,ps ight) =% \left( g,ps \right) =% \left( g,ps ight) $	0.36	
$\epsilon^{g}$	0.42	0.42	1	$\rho\left( extsf{pd},\mu^{ extsf{h}} ight)=0$	-0.30			
				$\rho\left( pd,ps\right) =$	0.49			
$\epsilon^e$	1			$\rho\left( pd,g\right) =$	0.27	$\rho\left(\mathbf{g},\mu^{\mathbf{h}}\right)=$	0.36	
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$\epsilon^e$	1			$\rho\left(pd,g\right) =$	0.27		
$\epsilon^{h}$	-0.5	1		$ ho\left( extit{pd}, \mu^{ extit{e}} ight) =$	-0.81		
$\epsilon^{\mathbf{g}}$	0.42	-0.42	1	$\rho\left(pd,\mu^{h}\right)=$	0.31		
				$\rho(pd, ps) =$	-0.09		

	e	$\epsilon^h$	σ	Fi.i.s.I.D.	l		
	$\epsilon^e$	$\epsilon$ "	$\epsilon^{g}$	Empirical Re	suits	Implication	ns
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Minor Comments Final Formation

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The Paper

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Final Remarks

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- Campbell-Shiller valuation identity requires either dividends or net payout (not total payout)
- Confusing notation:  $x_t$  in equation 1, but  $x_t = pd_t$  after
- Table 3: Lack of predictability in roughly 50% of the industries
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