Parameter	Variable	Value
Assumed:		
Mean consumption growth (%)†	g	1.89
Standard deviation of consumption growth (%)†	σ	1.50
Log risk-free rate (%)†	r^f	0.94
Persistence coefficient†	ϕ	0.87
Utility curvature	γ	2.00
Standard deviation of dividend growth (%)†	σ_ω	11.2
Correlation between Δd and Δc	ρ	0.2
Implied:		
Subjective discount factor†	δ	0.89
Steady-state surplus consumption ratio	$\overline{s}$	0.057
Maximum surplus consumption ratio	s_{max}	0.094

TABLE 1: PARAMETER CHOICES

† Annualized values, e.g., 12g, $\sqrt{12}\,\sigma$, $12r^f$, ϕ^{12}, and δ^{12}, since the model is simulated at a monthly frequency.

Statistic □	Consumption Claim	Dividend Claim	Postwar Sample	Long Sample
$E(\Delta c)$	1.89†		1.89	1.72
$\sigma(\Delta c)$	1.22†		1.22	3.32
$E(r^f)$	0.094†		0.094	2.92
$E(r - r^f) / \sigma(r - r^f)$	0.43†	0.33	0.43	0.22
$E(R - R^f) / \sigma(R - R^f)$	0.50		0.50	
$E(r - r^f)$	6.64	6.52	6.69	3.90
$\sigma(r - r^f)$	15.2	20.0	15.7	18.0
exp [E(p - d)]	18.3	18.7	24.7	21.1
$\sigma(p - d)$	0.27	0.29	0.26	0.27

TABLE 2: Means and Standard Deviations of Simulated and Historical Data

Note - The model is simulated at a monthly frequency; statistics are calculated from artificial time-averaged data at an annual frequency. All returns are annual percentages.

† Statistics that model parameters were chosen to replicate.

Correlation of Stochastic Discount Factor With:			
	Consumption Growth	Consumption Claim Return	Dividend Claim Return
Monthly	.90	.99	.83
Annual	.45	.99	.80

TABLE 3: Correlation of The Stochastic Discount Factor with Consumption Growth, Consumption Claim Return, and Dividend Claim Return

Note - The stochastic discount factor is

$$M_{i+1} = \delta \left(\frac{C_{i+1}}{C_i} \frac{S_{i+1}}{S_i} \right)^{-\gamma}$$

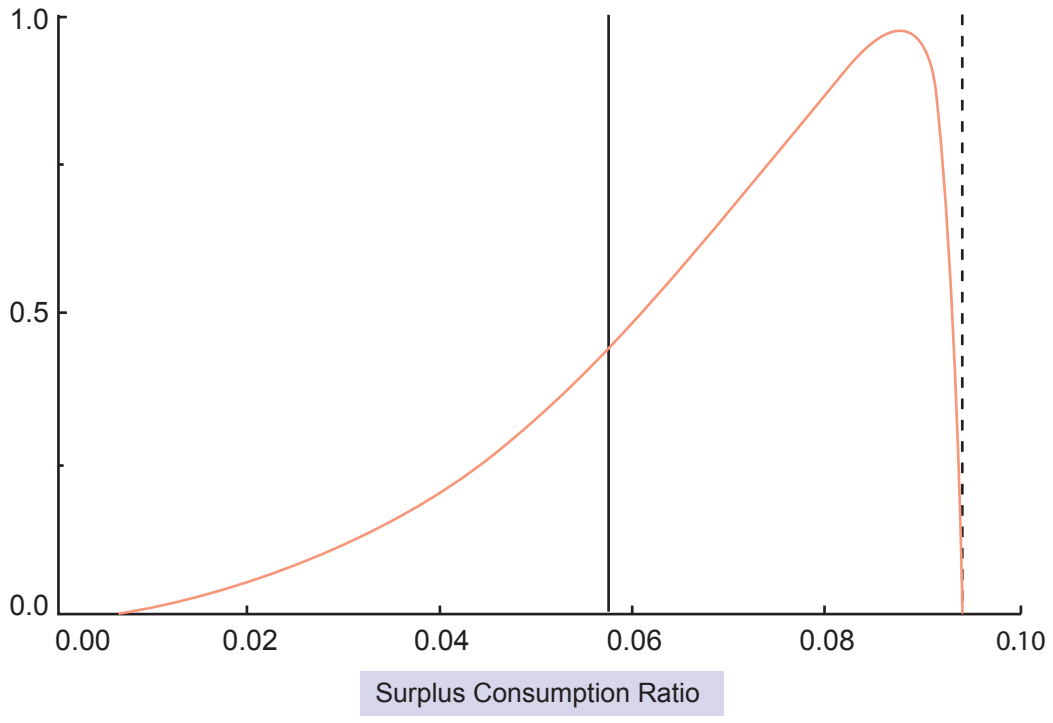

Fig. 1. - Unconditional distribution of the surplus consumption ratio. The solid vertical line indicates the steady-state surplus consumption ratio $\bar{S}$, and the dashed vertical line indicates the upper bound of the surplus consumption ratio S_{max}.

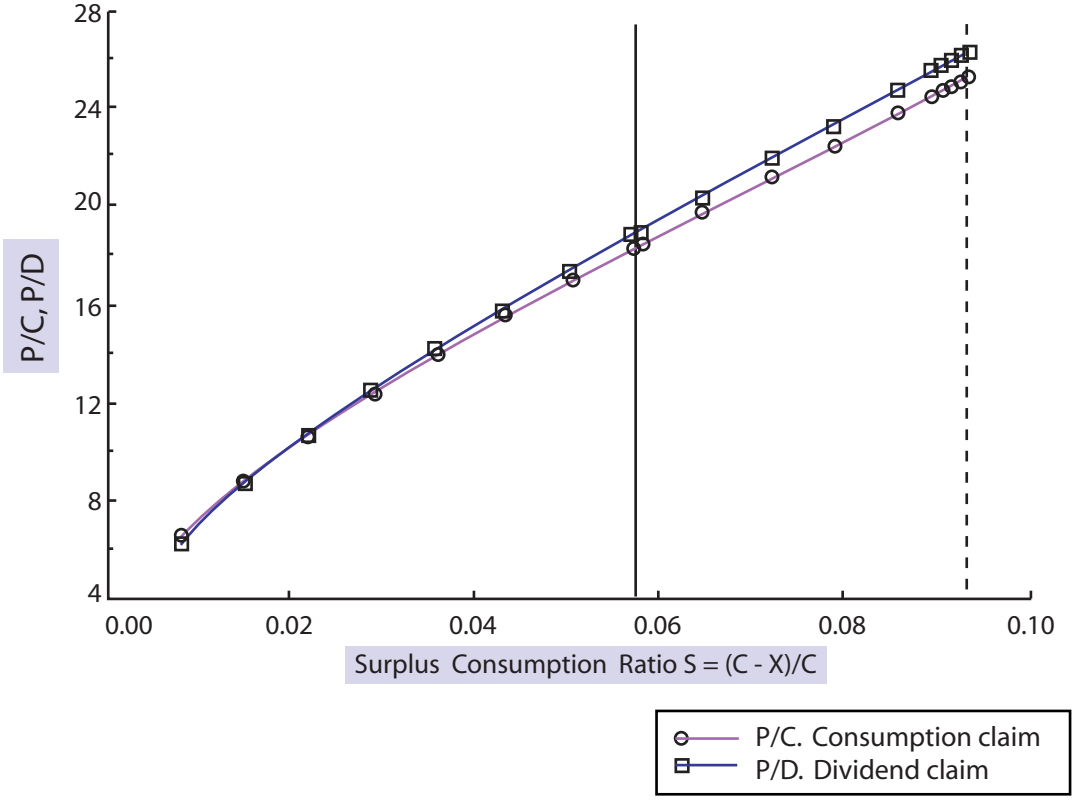

Fig. 2. - Price/dividend ratios as functions of the surplus consumption ratio

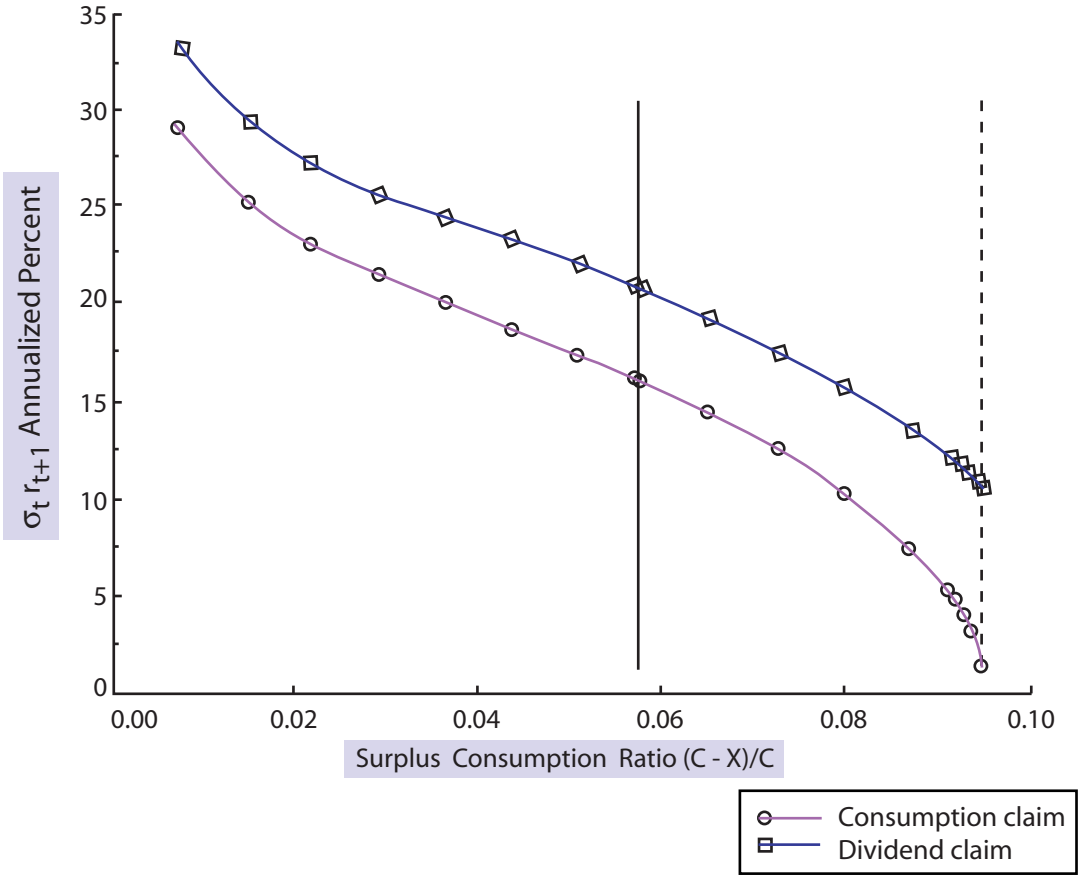

Fig. 3. - Conditional standard deviations of returns as functions of the surplus consumption ratio.

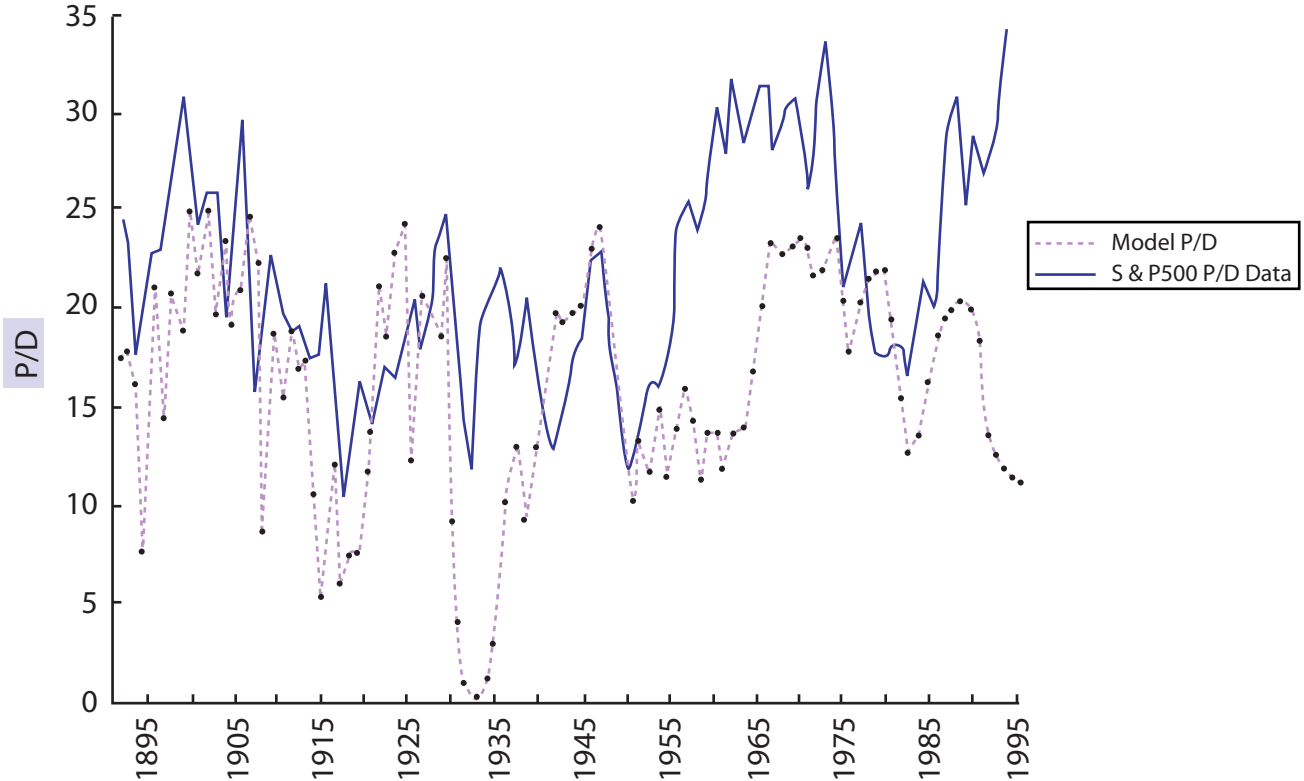

Fig. 4. - Historical price/dividend ratio and model predictions based on the history of consumption.