TABLE 3

CORRELATED UC MODEL ESTIMATES[a]

Panel A. Permanent income

$\bar{c}$	γ	μ	σ_v
−11.340	0.963	0.530	1.556
(6.480)	(0.006)	(0.108)	(0.184)

Panel B. Transitory income

$\phi_{y,1}$	$\phi_{y,2}$	σ_y
0.681	0.032	1.134
(0.056)	(0.044)	(0.172)

Panel C. Transitory consumption

$\phi_{c,1}$	$\phi_{c,2}$	σ_c
0.851	0.057	1.098
(0.030)	(0.030)	(0.180)

Panel D. correlations

ρ_{vy}	ρ_{vc}	ρ_{yc}
−0.875	−0.992	0.807
(0.040)	(0.005)	(0.060)

[a]Calculated using MLE. Standard errors reported in parentheses.

appropriate to estimate a cointegrating relationship rather than impose a "balanced-growth" restriction. At the same time, the estimate is close enough to one that the analysis in Section 1 about the undesirable properties of the standard restriction of uncorrelated components is still relevant. Second, contrary to the PIH, consumption appears to adjust slowly toward permanent income. Figure 3 displays the impulse response functions for the transitory components of income and consumption. Using a standard measure for "speed of adjustment," the half-life of a shock to the transitory component of income is less than a year. By contrast, the half-life of a shock to the transitory component of consumption is about 2 years. Evidently, the error correction mechanism restriction on speeds of adjustment would not be appropriate for these data. Indeed, the likelihood ratio statistic for H_0: $\phi_{y,1} = \phi_{c,1}$, $\phi_{y,2} = \phi_{c,2}$ is 25.15, which far exceeds the 5% critical value of 5.99 for the test.[12] Meanwhile, the results are robust to different lag order specifications. In particular, the dynamics are driven mostly by the first lag of the autoregressive processes, with a likelihood ratio test

12. Note, however, that the restricted model is not exactly the same as the VECM model in (17) and (18). In particular, while the error correction mechanism of a VECM has a more restrictive structure than the UC model, the VAR coefficients associated with the lagged changes in income and consumption in the VECM allow for more general transitory dynamics for different underlying structural shocks than the UC model, which imposes the same transitory dynamics for all shocks. Thus, the correlated UC model and a VECM are non-nested and cannot be directly compared using a likelihood ratio test.