

Notes on the Purchase Mortgage Originations Forecast

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Moody's Analytics introduced a new forecast for purchase mortgage originations (FMOF14PQ). There are no changes to the equation conceptually. The primary change is that the variable for existing-home prices was replaced. Moody's Analytics is now using the median single-family existing sales price rather than the Federal Housing Finance Agency Purchase-Only Home Price Index, which drives the forecast for the median single-family existing sales price.

The reason for this change is that the second regressor in the purchase mortgage originations specification is intended to capture the total amount of purchase mortgage originations, by aggregating the new-home sales volume and the existing-home sales volume and multiplying the sum by the loan-to-value ratio. In the existing-home sales volume calculation, however, the FHFA Purchase-Only Home Price Index is used rather than the median single-family existing sales price. Since the FHFA forecast drives the existing sales price forecast, this change will not yield a material change in the equation's performance. But using the existing sales price variable is more consistent with economic theory.

Equation specification

Dependent variable: DLOG(FMOF14PQ_US)

Method: Least squares

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Sample (adjusted): 1990Q2 2016Q3

Included observations: 106 after adjustments

Variable	Coefficient	Std. error	t-Statistic	Prob.
DLOG(FMBAFS_US)	-0.272793	0.108141	-2.522569	0.0132
DLOG(FLTV_US*(FHX1_US*FHX1MED_US+FHN1_US*FHN1MED_US))	0.756161	0.182225	4.149592	0.0001
R-squared	0.204902	Mean dependent var		0.007729
Adjusted R-squared	0.197257	S.D. dependent var		0.127020
S.E. of regression	0.113805	Akaike info criterion		-1.489971
Sum squared resid	1.346966	Schwarz criterion		-1.439718
Log likelihood	80.96849	Hannan-Quinn criter.		-1.469603
Durbin-Watson stat	2.936789			

*Mnemonics referenced in the above equation, e.g. FET, can be defined using the Mnemonic 411 feature on DataBuffet. Please contact Help@economy.com for assistance.