

## Notes on the Net Percentage of Banks Tightening Standards for Commercial & Industrial Loans Forecast

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Moody's Analytics introduced a new forecast for the net percentage of banks tightening lending standards for commercial and industrial loans (FXSLASCILQ). There were two conceptual reasons for the change to the forecast equation. The first is that the difference in the Standard & Poor's 500 was used as a regressor, but because the variable is nonstationary, the differenced regressor displays heteroskedasticity. This is problematic because the parameter estimate is fixed. To correct for this problem, we take a percent change in the S&P 500 rather than just the difference in the index.

The second reason for change was to capture the concept of the effect that raising capital has on firm lending. The original specification includes the Tier 1 risk-based capital ratio with a negative coefficient. This captures the concept of firms that are better capitalized being able to ease lending standards. However, the previous specification did not account for the actual act of raising capital resulting in there being fewer funds available to loan out to consumers, resulting in tighter lending standards. As such, the new specification adds the change in the Tier 1 capital ratio as a regressor with a negative coefficient.

### Equation specification

Dependent variable: FXSLASCILQ\_US

Method: Least squares

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Sample (adjusted): 2000Q2 2014Q1

Included observations: 56 after adjustments

Variable	Coefficient	Std. error	t-Statistic	Prob.
C	47.04262	22.68391	2.073832	0.0432
D(@MOVAV(FLBR_US,2))	49.49253	9.407930	5.260725	0.0000
@PC(FSP500Q_US)	-1.111715	0.329608	-3.372837	0.0014
FBQCRT1RCRQ_US	-3.737111	2.124465	-1.759083	0.0846
D(FBQCRT1RCRQ_US)	6.388912	16.12388	0.396239	0.6936
R-squared	0.692483	Mean dependent var		8.801786
Adjusted R-squared	0.668364	S.D. dependent var		27.45969
S.E. of regression	15.81344	Akaike info criterion		8.444643
Sum squared resid	12753.31	Schwarz criterion		8.625478
Log likelihood	-231.4500	Hannan-Quinn criter.		8.514752
F-statistic	28.71115	Durbin-Watson stat		0.737127
Prob(F-statistic)	0.000000			

\*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.