American Economic Journal: Macroeconomics 2016, 8(4): 1–2
https://doi.org/10.1257/mac.20150016

Pushing on a String: US Monetary Policy is Less Powerful in Recessions: Corrigendum†

By Nick Stenner, Silvana Tenreyro, and Gregory Thwaites*

The published version of Tenreyro and Thwaites (2016, *American Economic Journal: Macroeconomics* (8) 4: 43–74) included a typo in the labeling of the price-level impulse responses. The impulse response in the price level was calculated by cumulating quarterly annualized inflation, rather than cumulating quarterly inflation, such that the values for the price-level IRF in the tables are scaled up by a factor of approximately four.

The factor scales price-level responses in all regimes equally, so the paper's main conclusion—that US monetary policy is less powerful in recessions—is unchanged. Updated figures and tables are in an online Appendix.

Figure 1 and Table 1 below are the updated Figure 2 and Table 1 in the published paper, with inflation now scaled correctly.

Table 5 in Tenreyro and Thwaites (2016) incorrectly reports the results from the baseline regression model calculated with no time trend (shown in Table 6 in the published paper). Table 2 below shows the responses including time trends, i.e., the cumulated baseline IRFs calculated when the shocks are recovered from the VAR specified in Tenreyro and Thwaites (2016) (corresponding to Table 5 in the original paper). The level of both GDP and prices fall significantly more during expansions, and overall the results are qualitatively similar to the baseline.

Table 1—Cumulative Impulse Response of the Price Level

	Regime		Significance level of difference	
At horizon h=	Expansion	Recession	Driscoll-Kraay	Bootstrap
GDP				
4	−0.0194	0.0109	0.0059	0.1233
8	−0.0452	−0.0129	0.1319	0.2316
12	−0.0751	−0.0240	0.0904	0.1100
16	−0.0721	−0.0393	0.2379	0.2040
Inflation				
4	0.0017	−0.0005	0.1558	0.7950
8	−0.0019	0.0011	0.2132	0.5150
12	−0.0120	0.0017	0.0046	0.1445
16	−0.0194	−0.0040	0.0292	0.1981

* Stenner: Department of Economics, Manor Road Building, Manor Road, Oxford OX1 3UQ, United Kingdom (email: nicholas.stenner@economics.ox.ac.uk); Tenreyro: London School of Economics, Houghton Street, London WC2A 2AE (email: s.tenreyro@lse.ac.uk); Thwaites: Bank of England, Threadneedle Street, London EC2R 8AH (email: gregory.thwaites@bankofengland. co.uk). Tenreyro and Thwaites thank Stenner for drawing their attention to this matter and for providing updated Tables and Figures.

† Go to https://doi.org/10.1257/mac.20150016 to visit the article page for additional materials and author disclosure statement(s) or to comment in the online discussion forum.

TABLE 2—CUMULATIVE IMPULSE RESPONSE OF GDP AND THE PRICE LEVEL: VAR SHOCKS

Cumulative impact on	At horizon $h=$	Regime		Significance level	
		Expansion	Recession	Driscoll-Kraay	Bootstrap
GDP	4	−0.0392	−0.0028	0.0849	0.2359
	8	−0.1025	−0.0210	0.0560	0.1234
	12	−0.1589	−0.0352	0.0469	0.0646
	16	−0.1412	−0.0431	0.1317	0.1110
Inflation	4	−0.0004	0.0013	0.3813	0.4142
	8	−0.0086	0.0009	0.1850	0.3526
	12	−0.0334	−0.0015	0.0225	0.0856
	16	−0.0489	−0.0059	0.0219	0.1120

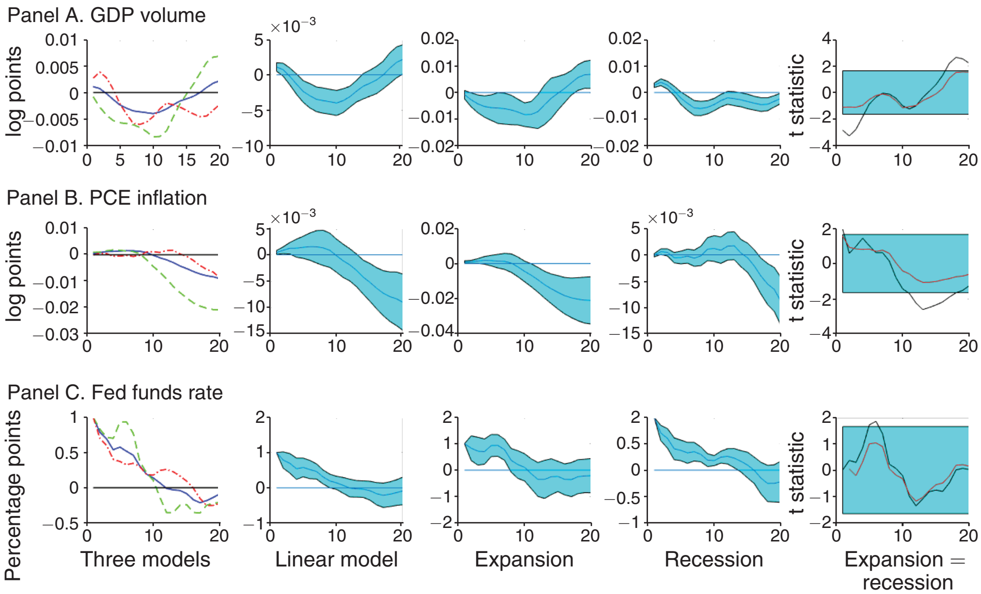

FIGURE 1. IMPULSE RESPONSE OF HEADLINE VARIABLES TO A MONETARY POLICY SHOCK

Notes: The first four columns show the impulse response to a monetary policy shock that increases the federal funds rate by 1 percentage point on impact. In the first column, the solid blue line shows the response in a linear, state independent model, the green dashed line shows the response in an expansion, and the red dotted line shows the response in a recession. The second column shows a 90 percent confidence interval around the state independent response, the third column the same interval around the response in an expansion, and the fourth column the interval around the response in a recession. The fifth column shows t-statistics testing the hypothesis that the difference between the coefficients in an expansion and a recession is zero. The solid line is calculated using the Driscoll-Kraay method, and the dashed line using a bootstrap approach (see main text for details). The shaded area is ±1.65. The first row is the log-level of real GDP; the second row is the log-level of the PCE deflator; and the third row is the level of the federal funds rate.

REFERENCES

Tenreyro, Silvana, and Gregory Thwaites. 2016. "Pushing on a String: US Monetary Policy Is Less Powerful in Recessions." *American Economic Journal: Macroeconomics*, 8 (4): 43-74. DOI: 10.1257/mac.20150016.