Transmission of the policy rate to market interest rates considering agentes expectations

Eliana González, Deicy Cristiano and Carlos Huertas

Banco de la República de Colombia

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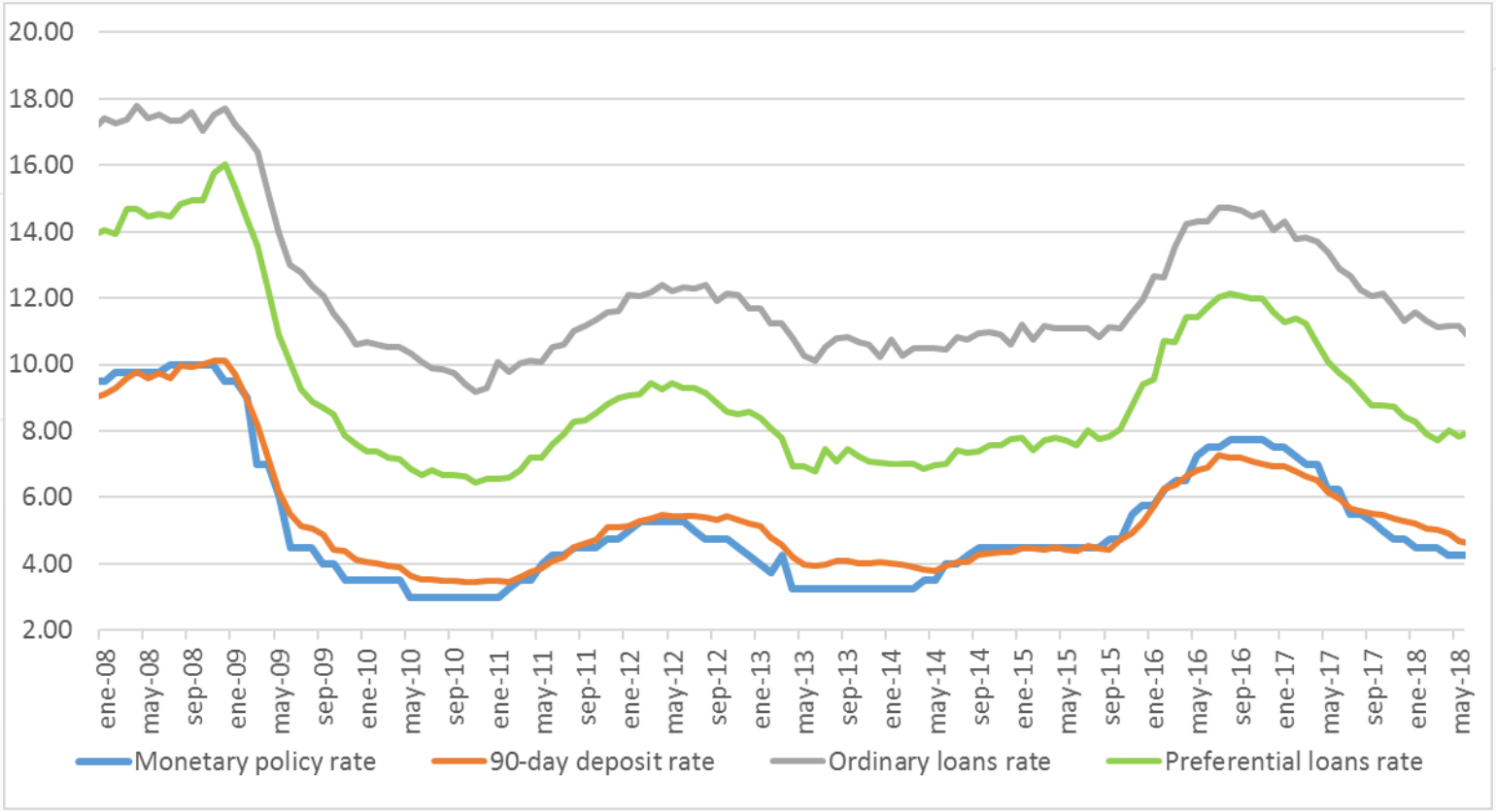
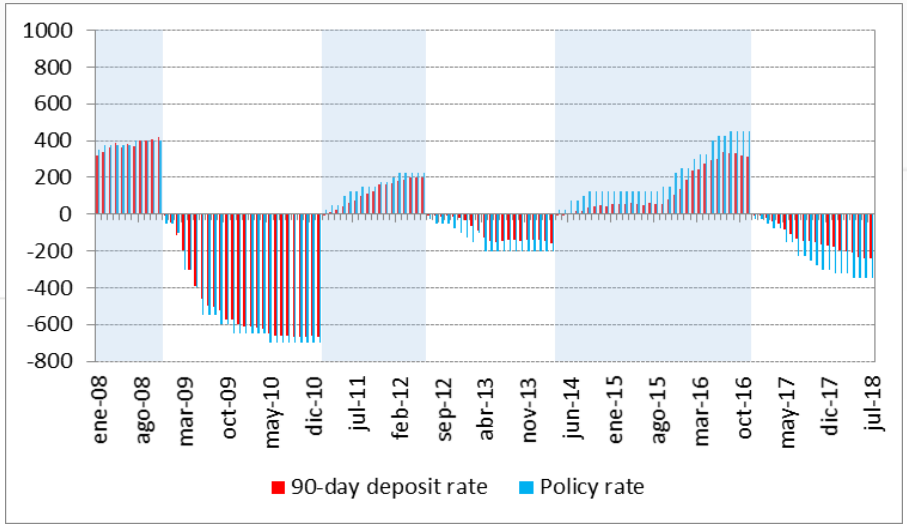
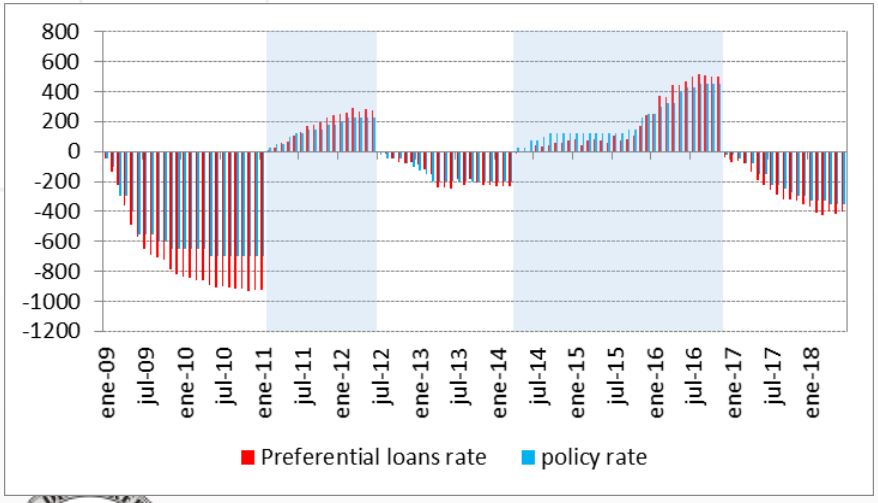
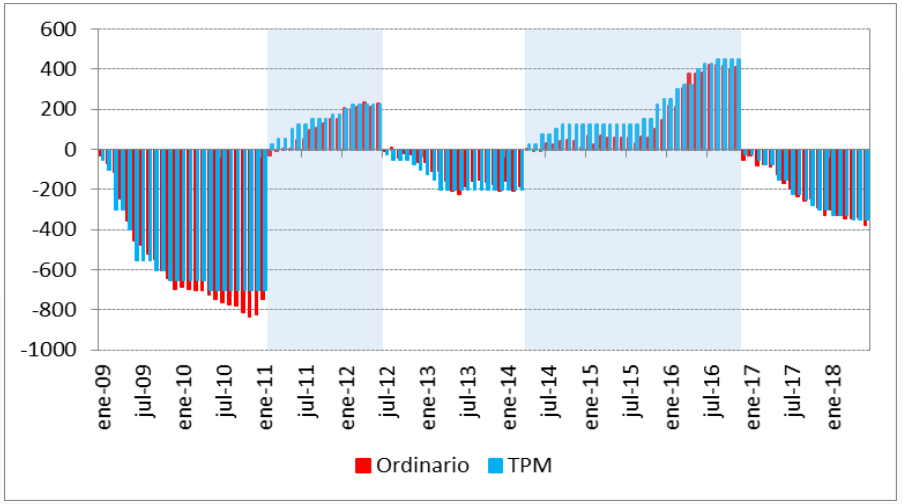
MARKET INTEREST RATES AND MONETARY POLICY RATE



Cummulative change since the change in monetary policy stance(bp)







The effect of unanticipated monetary policy shocks

$$\Delta i_t = \alpha_0 + \alpha_1 \Psi_t + \epsilon_t$$

1. Estimación of monetary policy shocks as one-period forecasting errors from the model:

$$i_t^p = f(Y, \bar{\pi}, \pi^{USA}, \Delta s, ICI, CCI)_{t-p} + \Psi_t$$

$$\Psi_t = i_t^p - \ i_{t/t-1}^p$$

Where Y : Output gap, $\bar{\pi}$: Inflation gap from target, π^{USA}: USA Inflation, Δs : Nominal devaluation, installed capacity index, consumer confidence index.

The effect of unanticipated monetary policy shocks

2. Estimation of monetary policy shocks as forecasting errors from the monetary policy rate expectations (survey of experts)

$$\Psi'_t = i_t^p - E_{t-1}(i_t^p)$$

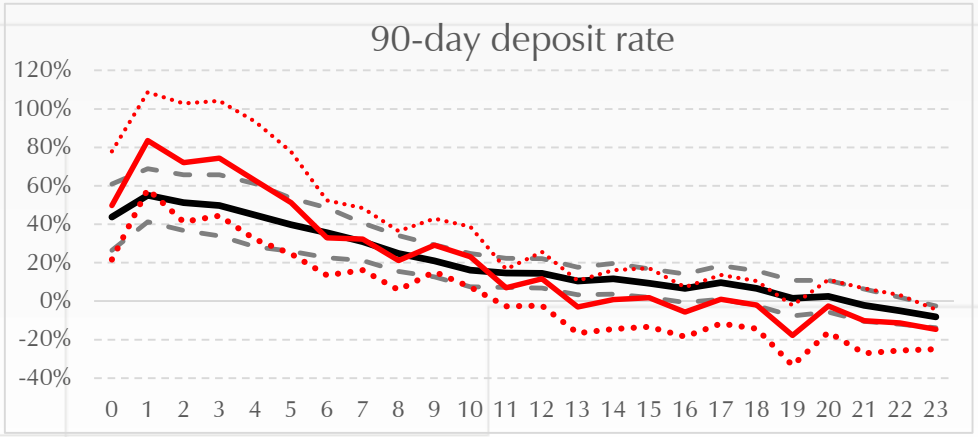
90-day Deposit rate		
Coeficient	1	2
Shock	0.44	0.49
	(0.11)	(0.17)
constant	-0.005	-0.003
	(0.00)	(0.00)
Adjusted R^2	0.28	0.11

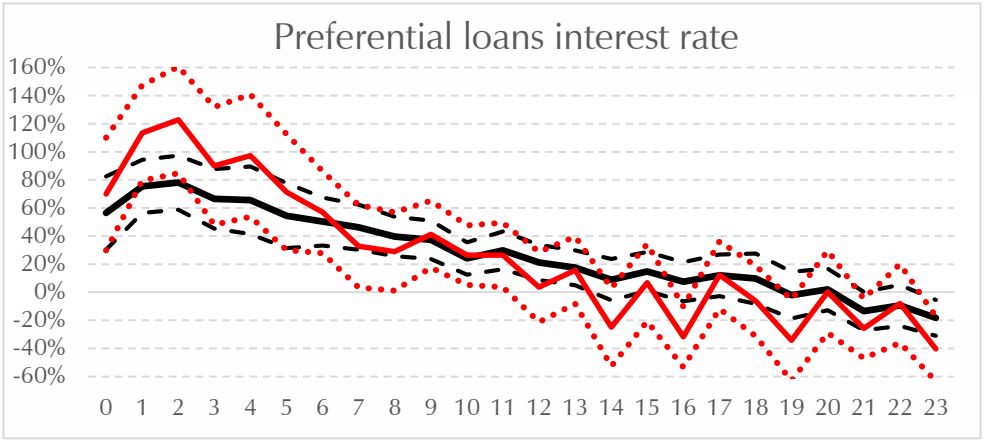
Commercial credit rates

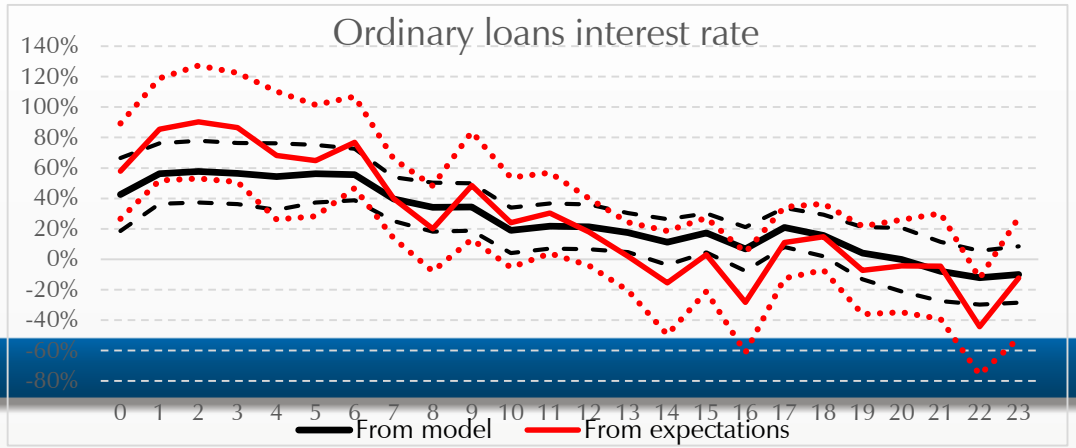
Ordinary loans		
	1	2
Shock	0.43	0.58
	(0.11)	(0.22)
constant	-0.003	-0.004
	(0.00)	(0.00)
Adjusted R^2	0.11	0.06

Preferential loans		
	1	2
Shock	0.56	0.7
	(0.11)	(0.22)
constant	-0.005	-0.003
	(0.00)	(0.00)
Adjusted R^2	0.17	0.08

Impulse-response function of an unanticipated monetary policy shock







UNANTICIPATED MONETARY SHOCKS ESTIMATED AS THE AVERAGE OF SHORT-RUN EXPECTATIONS

$$i_t^{90-day} = \frac{1}{3}\left(i_t^{mp} + E_t\left[i_{t+1}^{mp}\right] + E_t\left[i_{t+2}^{mp}\right]\right)$$

$$\Delta i_t^{90-day} = \frac{1}{3}\left(i_t^{mp} - E_{t-1}\left[i_t^{mp}\right]\right) + \frac{1}{3}\left(E_t\left[i_{t+1}^{mp}\right] - E_{t-1}\left[i_t^{mp}\right]\right) + \frac{1}{3}\left(E_t\left[i_{t+2}^{mp}\right] - i_{t-1}^{mp}\right)$$

$$\Delta i_t^{90-day} = \alpha_1\left(i_t^{mp} - E_{t-1}\left[i_t^{mp}\right]\right) + \alpha_2\left(E_t\left[i_{t+1}^{mp}\right] - E_{t-1}\left[i_{t+1}^{mp}\right]\right) + \alpha_3 E_t\left[i_{t+2}^{mp} - i_{t-1}^{mp}\right] + \epsilon_t$$

$$unanticipated\ monetary\ policy\ surprise = i_t^{mp} - E_{t-1}\left[i_t^{mp}\right]$$

$$expectations\ revision = E_t\left[i_{t+1}^{mp}\right] - E_{t-1}\left[i_{t+1}^{mp}\right]$$

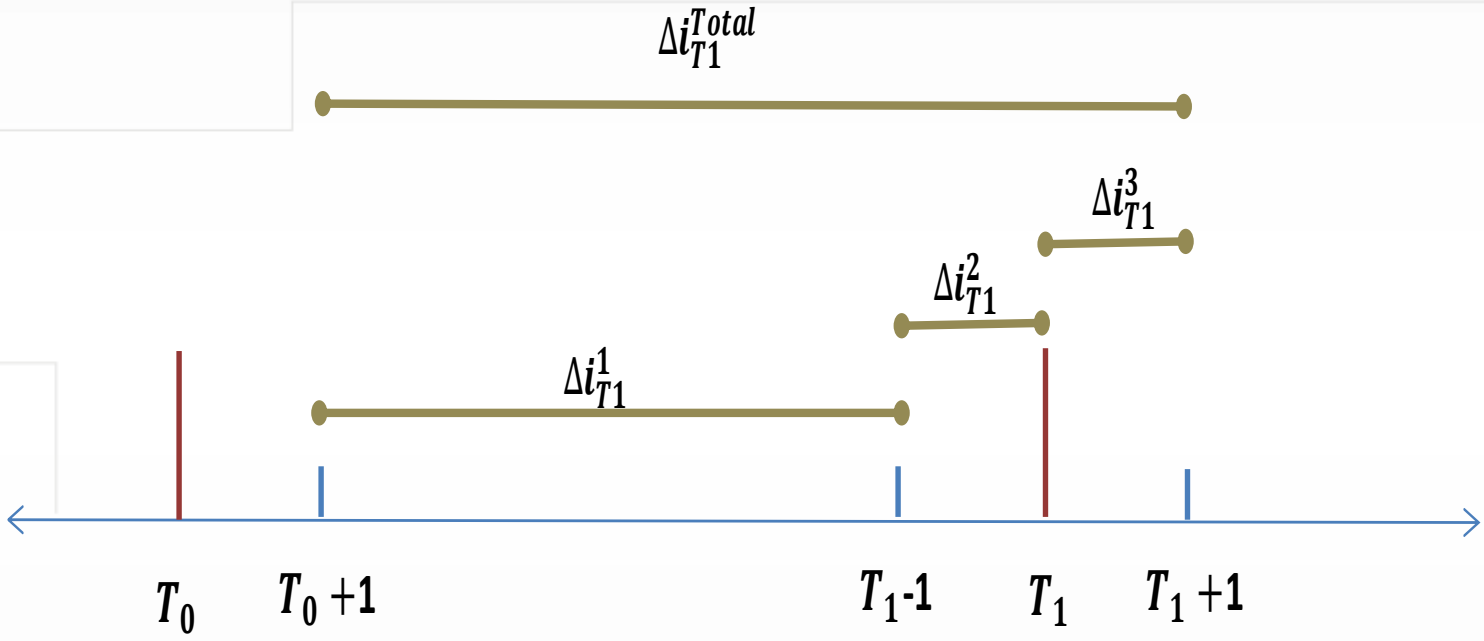
$$expectations\ of\ the\ \text{change in}\ MP\ rate\ in\ the\ whole\ period = E_t\left[i_{t+2}^{mp} - i_{t-1}^{mp}\right]$$

$$= E_t\left[\Delta i_{t+2}^{mp} + \Delta i_{t+1}^{mp} + \Delta i_t^{mp}\right]$$

Estimation results

	Coeficient	Estimate	std error
Monetary policy surprise	α_1	0.188	0.089
expectation revision	α_2	0.124	0.121
expectation of total change in the polity rate	α_3	0.465	0.095

How does the daily deposit interest rate change with The monetary policy decisions



$$\Delta i_T^j = \phi_0 + \phi_1 \Delta TI_T + \nu_T \quad with\ j = 1,2,3,4$$

How does the daily deposit interest rate change with The monetary policy decisions

	Before MP decision	Day of the MP decision	Day after MP decision	Total change
ϕ_1	0.440***	-0,081	0.265*	0.624***
	(0,1476)	(0,1472)	(0,1363)	(0,1090)
ϕ_0	0.0015***	-0.0015***	-0,0001	-0,0001
	(0,0004)	(0,0004)	(0,0004)	(0,0003)