Forward-Looking Provisions and the Economic Cycle: Credit Supply and Real Effects

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"Too little, too late" provisions: ICL & Procyclicality

- Loan loss provisions is largest accruals for banks
- ✓ Provisioning based on incurred credit losses (ICL) is controversial → The ICL results in too little loss allowances during booms or early stages of a downturn
- The delayed recognition of losses can result in significant and rapid increases in provisions in the middle of the downturn

Corresponding reductions in profitability, regulatory capital, and credit in recessions/crises

Expected Credit losses (ECL)

- Introduction in Europe (IFSR9) and US (ASU 2016-13 (CECL)) over 2018-2020
- ECL vs ICL: loans in origination and under-performing have to be provisioned, not just non-performing loans

LLA= EAD*PD*LGD

LLA: loan loss allowance EAD: Exposure at default PD: Probability of default LGD: Loss given default

	ICL	ECL
Origination	LLA=0	LLA>0
Underperforming	LLA=0	LLA>0
Non-performing	LLA>0	LLA>0

Expected Credit losses (ECL)

- Introduction in Europe (IFSR9) and US (ASU 2016-13 (CECL)) over 2018-2020
- ECL vs ICL: loans in origination and under-performing have to be provisioned, not just non-performing loans
- Potential benefits in large part related to less
 procyclicality & better risk-taking by banks ->
 <u>supervisors & policy very interested</u>
- ✓ COVID-19 crisis → allow banks to defer ECL application plus not "see it coming" (e.g. Borio & Restoy, 2020)

Importance of the ECL Model, not just for policy

"The new standard represents the most sweeping change to bank accounting ever"

American Bankers Association, 2018

"For many banks, the adoption of expected credit loss accounting will be the most momentous accounting change they have experienced, even more significant than their transition to IFRS"

Global Public Policy Committee, 2016

Forward-looking provisions: Regulatory Change in Colombia

	Pre	Post
Origination	LLA=0	LLA>0
Underperforming	LLA=0	LLA>0
Non-performing	LLA>0	LLA>0



Forward-looking provisions: Regulatory Change in Colombia

	Pre	Post
Origination	LLA=0	LLA>0
Underperforming	LLA=0	LLA>0
Non-performing	LLA>0	LLA>0

Exploit a discontinuity <u>for identification</u>

Probability of Default:^a

Days Arrears	Assets < COP 2 billion	Assets > COP 2 billion
0-30	1.56	1.11
31 - 60	2.50	2.04
61 - 90	7.52	7.35
91 - 120	10.70	9.65
121 - 150	22.72	17.36
>150	100	100

Preview of the main results

- Less credit and in turn negative associated real effects for firms with higher provisioning due to the law (as compared to very similar firms with lower provisioning)
- ✓ These negative credit & real effects patterns are stronger in "bad" times
- ✓ Evidence on the <u>mechanism</u>:
 - Increase in provisioning
 - ✓ Stronger patterns when the bank has a **lower** <u>capital ratio</u>
- Regulatory arbitrage: Less capitalized banks "<u>search for yield</u>" within firms with relatively higher provision requirements
 - These banks end up with riskier portfolios, i.e., with more concentration and higher ex-post defaults

(economic effects are strong and lots of robustness)

- Not clear reduction in procyclicality from forward-looking provisioning: they imply more credit reduction (& worse real effects) during bad times
 - - <u>No credit cut in bad times from forward-looking provisions if</u> <u>banks have high levels of capital</u>
- Bank supervision role for regulatory arbitrage/ unintended risk-taking: Less capitalized banks "search for yield" in firms with higher provisioning requirements, leading to higher concentration & ex-post loan defaults
 José-Luis Peydró

Data, Sample and Identification

- ✓ Comprehensive data on banks, firms, and credit
 - ✓ Credit registry
 - ✓ Data from the bank supervisor
 - ✓ 21,267 unique firms and 29 unique banks
- Provisioning law from May 2007, affecting firms differently in part (and we exploit this) around an exogenous/arbitrary threshold (2 COP billion)
- Exploit bad vs. good times before and after the provisioning reform
- ✓ Sample period: 2001-2012 (plus 2010-2016, or 2007:Q1-Q4)
- ✓ Internal vs external validity for ECL

Short-Window around Implementation



Short-Window around Implementation: **Provisions & GDP growth/Unemployment rate**



Short-Window (+/- 1 year) around Implementation: **Credit Volume**

		Loan Volume _{f,b,q}											
	I	Real Thresho	old	Placebo	Threshold	Below	Placeb	o Threshold	Above				
	Range	Range [1.5-2.5] COP billion).5-1.5] COI	<i>billion</i>	Range	Range [2.5-3.5] COP billion					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)				
Post _q	0.07***			0.02			-0.02						
	(0.03)			(0.03)			(0.04)						
Higher_Treatment _f *Post _q	-0.24***	-0.24***	-0.31***	0.02	0.02	0.02	0.03	0.03	0.02				
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.06)	(0.05)	(0.05)				
Observations	17,324	17,320	16,964	30,035	30,034	29,597	19,526	19,524	19,195				
R-squared	0.79	0.79	0.81	0.79	0.80	0.81	0.79	0.80	0.82				
Firm-Bank FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Bank-Quarter FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes				
Sector-Quarter FE	No	No	Yes	No	No	Yes	No	No	Yes				

Short-Window around Implementation: Firm-Level Real Effects

	Loan V	olume _{f,y}	Liabilities _{f,y}		Reve	<i>Revenue_{f,y}</i>		ets _{f,y}	FixedAssets _{f,y}	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Higher_Treatment _f *Posty	-0.45*** (0.08)	-0.48*** (0.11)	-0.41*** (0.02)	-0.39*** (0.03)	-0.19*** (0.03)	-0.20*** (0.04)	-0.30*** (0.02)	-0.30*** (0.02)	-0.21*** (0.04)	-0.16*** (0.05)
Observations	4,184	3,042	4,184	3,042	4,184	3,042	4,184	3,042	4,184	3,042
R-squared	0.80	0.85	0.86	0.89	0.92	0.94	0.71	0.78	0.91	0.93
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mainbank-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector-Year	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Short-Window around Implementation:



Economic cycles



Economic Cycles (2001:Q1-2012-Q4): GDP growth & Sovereign CDS spread



Economic Cycles: Unemployment rate



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Economic Cycles (2001:Q1-2012:Q4): Credit Volume

	Loan Volume _{f,b,q}										
	Real Tl	reshold	Placebo Thre	shold Below	Placebo Three	shold Above					
	Range [1.5-2.	5] COP billion	Range [0.5-1.5] COP billion	Range [2.5-3.5] COP billion						
	(1)	(2)	(3)	(4)	(5)	(6)					
Higher Treatment [*] Posta	-0.32***	-0.28***	-0.05*	-0.06**	0.01	0.03					
5 <u> </u>	(0.04)	(0.04)	(0.03)	(0.03)	(0.08)	(0.06)					
Higher Treatment _f *WeakGDP _{g-1}	0.03*	0.03	0.02	0.02	0.00	-0.00					
<u> </u>	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)					
Higher Treatment _f *WeakGDP _{g-1} *Post _g	-0.09***	-0.09**	-0.03	-0.03	-0.03	-0.03					
	(0.03)	(0.04)	(0.03)	(0.03)	(0.02)	(0.02)					
Observations	74,284	74,147	142,705	142,518	51,909	51,747					
R-squared	0.64	0.65	0.65	0.66	0.66	0.67					
Firm-Bank FE	Yes	Yes	Yes	Yes	Yes	Yes					
Bank-Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes					
Sector-Quarter FE	No	Yes	No	Yes	No	Yes					

Economic Cycles: Firm-Level Real Effects

		Real Thre	eshold		Pl	acebo Thresh	old Below		Placebo Threshold Above					
	Rai	ige [1.5-2.5]	COP billion	n	Rar	Range [0.5-1.5] COP billion				ge [2.5-3.5]	COP billio	n		
	Liabilities _{f,y}	Revenue _{f,y}	$Assets_{f,y}$	Survival _f	Liabilities _{f,y}	<i>Revenue</i> _{f,y}	$Assets_{f,y}$	Survival _f	Liabilities _{f,y}	<i>Revenue</i> _{f,y}	$Assets_{f,y}$	Survival _f		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
Higher Treatment _f *Post _y	-0.41***	-0.29***	-0.32***		0.00	0.04*	0.00		-0.02	-0.02	-0.00			
3 _ / /	(0.03)	(0.04)	(0.03)		(0.02)	(0.02)	(0.02)		(0.05)	(0.04)	(0.02)			
Higher Treatment _f														
WeakGDP _y	-0.04	-0.05	-0.03		0.02	0.00	0.01		0.06	-0.03	0.01			
-	(0.03)	(0.03)	(0.02)		(0.02)	(0.02)	(0.02)		(0.04)	(0.06)	(0.02)			
Higher_Treatment _f														
*WeakGDP _y *Post _y	-0.07**	-0.06*	-0.05**		0.05	0.04	0.03		-0.02	-0.04	0.03			
	(0.03)	(0.04)	(0.03)		(0.04)	(0.04)	(0.04)		(0.11)	(0.13)	(0.06)			
Higher_Treatment _f				-0.07**				-0.03				-0.03		
				(0.03)				(0.02)				(0.04)		
Observations	7,876	7,730	7,876	655	17,749	17,534	17,756	1,777	4,877	4,807	4,879	420		
R-squared	0.79	0.86	0.72	0.26	0.76	0.85	0.79	0.21	0.78	0.87	0.70	0.28		
Firm FE	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No		
MainBank-Year FE	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No		
Sector-Year FE	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
State-Sector FE	-	-	-	Yes	-	-	-	Yes	-	-	-	Yes		

Economic Cycles: **Provisions**

	Provisions _{1,b,q}										
	Real TI	reshold	1	Placebo Thre	shold Below	Ī	Placebo Thre	shold Above			
	Range [1.5-2.	5] COP billion	1	Range [0.5-1.5] COP billion	I	Range [2.5-3.5] COP billion				
	(1)	(2)		(3)	(4)		(5)	(6)			
Higher_Treatment _{f,y-1} *Post _q	1.145*	1.125*		0.510	0.569		0.341	0.604			
	(0.656)	(0.654)		(0.408)	(0.399)		(0.779)	(0.832)			
Higher_Treatment _{f,y-1} *WeakGDP _{g-1}	0.515	0.492		-0.241	-0.263		-0.031	-0.144			
	(0.340)	(0.366)		(0.179)	(0.206)		(0.251)	(0.397)			
Higher Treatment _{f.v-1} *WeakGDP _{a-1} *Post _a	1.034**	1.091**		-0.172	-0.076		-0.453	-0.540			
0	(0.484)	(0.522)		(0.301)	(0.325)		(0.379)	(0.584)			
Observations	74,223	74,087		142,639	142,452		51,811	51,649			
R-squared	0.478	0.505		0.507	0.521		0.454	0.504			
Firm-Bank FE	Yes	Yes		Yes	Yes		Yes	Yes			
Bank-Quarter FE	Yes	Yes		Yes	Yes		Yes	Yes			
Sector-Quarter FE	No	Yes		No	Yes		No	Yes			

Bank capital and provisioning



Short-Window around Implementation: Credit and Bank Capital

	Loan Volume _{f,b,q}											
	F	Real Thresho	old	Placebo	Threshold	Below	Placeb	Placebo Threshold Above				
	Range [1.5-2.5] COP billion			Range [0	0.5-1.5] COI	billion	Range [2.5-3.5] COP billion					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
Higher_Treatmentf*Postq	-0.22***	-0.26***		-0.06	-0.06		0.04	0.07				
	(0.04)	(0.04)		(0.04)	(0.04)		(0.04)	(0.05)				
Higher_Treatmentf*Postq*HighTier1 _{b,07Q2}	0.14***	0.11**	0.17***	0.09	0.09	0.02	0.05	-0.04	-0.12			
	(0.05)	(0.05)	(0.06)	(0.12)	(0.13)	(0.12)	(0.17)	(0.18)	(0.17)			
Observations	17,320	16,964	12,168	32,087	31,563	24,625	11,255	10,970	9,439			
R-squared	0.71	0.81	0.88	0.82	0.81	0.87	0.79	0.82	0.89			
Firm-Bank FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Bank-Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Sector-Quarter FE	No	Yes	-	No	Yes	-	No	Yes	-			
Firm-Quarter FE	No	No	Yes	No	No	Yes	No	No	Yes			

Economic Cycles: Credit and Bank Capital

	Loan Volume _{f,b,q}											
	Real T	hreshold	Placebo Thre	shold Below	Placebo Three	shold Above						
	Range [1.5-2.	5] COP billion	Range [0.5-1.5] COP billion	Range [2.5-3.5] COP billion						
	(1)	(2)	(3)	(4)	(5)	(6)						
Higher_Treatment _f *Post _q	-0.32***	-0.30***	-0.05	-0.05	-0.01	-0.04						
	(0.06)	(0.06)	(0.04)	(0.04)	(0.07)	(0.07)						
Higher Treatment _f *WeakGDP _{q-1}	0.03*	0.03*	0.02	0.02	0.01	0.02						
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)						
Higher Treatment _f *WeakGDP _{a-1} *Post _a	-0.08**	-0.09**	-0.02	-0.01	-0.06	-0.07						
	(0.04)	(0.04)	(0.04)	(0.04)	(0.06)	(0.06)						
Higher Treatment _f *Post _a *Tier1 _{b,g}	-0.12	-0.12	0.00	0.01	0.28	0.25*						
	(0.10)	(0.10)	(0.07)	(0.07)	(0.17)	(0.13)						
Higher Treatment _f *WeakGDP _{a-1} *Tier1 _{b.g}	0.04	0.04	-0.00	-0.00	-0.02	-0.03						
	(0.04)	(0.04)	(0.03)	(0.03)	(0.07)	(0.07)						
Higher Treatmentf*WeakGDP _{q-1} *Post _q *Tier1 _{b,q}	0.10*	0.13*	-0.06	-0.05	0.03	0.04						
	(0.06)	(0.07)	(0.05)	(0.05)	(0.13)	(0.13)						
Observations	73,861	73,768	142,068	141,957	51,466	51,345						
R-squared	0.63	0.64	0.65	0.66	0.65	0.67						
Firm-Bank FE	Yes	Yes	Yes	Yes	Yes	Yes						
Bank-Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes						
Sector-Quarter FE	No	Yes	No	Yes	No	Yes						

Regulatory arbitrage



Search for Yield in firms with more provisioning, by less capitalized banks

	Loan Volume _{f,b,q}													
		Real Th	reshold		Pla	cebo Thre	shold Bel	ow	Pla	cebo Thr	eshold Al	oove		
	Rang	Range [1.5-2.5] COP billion					Range [0.5-1.5] COP billion				Range [2.5-3.5] COP billion			
	Lower C	apital	Higher (Capital	Lower	Capital	Higher	Capital	Lower Capital		Higher Capital			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
$Higher_Treatment_f^*Post_q$	-0.33***		-0.13**		-0.06	-0.11**	-0.06*	-0.01	0.11*	0.06	0.08	0.02		
Higher_Treatment _f *HighYield _{f.b.07Q2}	0.13***	0.01	0.16***	0.04	0.07	0.06	0.01	0.03	-0.01	0.05	0.04	0.15*		
	(0.05)	(0.09)	(0.05)	(0.08)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.07)	(0.06)	(0.07)		
Higher_Treatmentf*Postq*HighYieldf,b,07Q2	0.21**	0.29*	-0.06	-0.17	-0.01	0.02	0.10	0.01	-0.07	0.01	0.05	0.09		
	(0.10)	(0.17)	(0.08)	(0.13)	(0.05)	(0.05)	(0.06)	(0.07)	(0.08)	(0.07)	(0.08)	(0.11)		
Observations	5,683	2,834	7,854	4,966	17,040	16,372	15,876	15,142	6,507	6,149	5,089	4,709		
R-squared	0.80	0.89	0.84	0.91	0.80	0.82	0.81	0.83	0.80	0.83	0.81	0.85		
Firm-Bank FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Bank-Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Sector-Quarter FE	Yes	-	Yes	-	Yes	-	Yes	-	Yes	-	Yes	-		
Firm-Quarter FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes		

I The ex-ante risk-taking by these banks end up with higher portfolio concentration and ex-post loan defaults

	Herfindahl Firms _{b.q}		Herfindahl Sectors _{b,q}		$Arrears_{b,q}$		Delinquency _{b,q}	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post _q	0.01**		0.02**		0.10*		0.00	
Post _q *Tier1 _{b,07Q2}	-0.45** (0.19)	-0.45** (0.18)	-0.64*** (0.23)	-0.64*** (0.23)	-1.36* (0.79)	-1.36* (0.77)	-0.02* (0.01)	-0.02* (0.01)
Observations	124	124	124	124	124	124	124	124
R-squared	0.91	0.91	0.90	0.90	0.68	0.70	0.52	0.59
Bank FE Ouarter FE	Y es No	Yes Yes	Y es No	Yes Yes	Y es No	Yes Yes	Y es No	Yes Yes
$SD(Tier1_{b,07Q2})$	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Average(Dependent Variable)	0.04	0.04	0.07	0.07	0.18	0.18	0.01	0.01

Summary of the main results

- Less credit and in turn negative associated real effects for firms with higher provisioning due to the law (as compared to very similar firms with lower provisioning)
- ✓ These negative credit & real effects patterns are stronger in "bad" times
- ✓ Evidence on the <u>mechanism</u>:
 - Increase in provisioning
 - ✓ Stronger patterns when the bank has a **lower** <u>capital ratio</u>
- Regulatory arbitrage: Less capitalized banks "<u>search for yield</u>" within firms with relatively higher provision requirements
 - These banks end up with riskier portfolios, i.e., with more concentration and higher ex-post defaults

(economic effects are strong and lots of robustness)

Conclusions: main policy messages

- Not clear reduction in procyclicality from forward-looking provisioning: they imply more credit reduction (& worse real effects) during bad times
 - ✓ Provisioning & bank capital complementarity: despite differences (profits & potentially taxes, in expected vs unexpected losses, in Tier 1 vs 2), both are shareholders' funds → higher provisioning on credit (real effects) is reduced with higher bank capital ratios (in both good & bad times)
 - <u>No credit cut in bad times from forward-looking provisions if</u> <u>banks have high levels of capital</u>
- Bank supervision role for regulatory arbitrage/ unintended risk-taking: Less capitalized banks "search for yield" in firms with higher provisioning requirements, leading to higher concentration & ex-post loan defaults
 José-Luis Peydró





ECL and COVID-19:

Regulatory responses

✓ Allow banks to **defer** the application of the ECL model

- Enhance existing arrangements so as to temporarily sterilize the effect on regulatory capital
- ✓ Issue pragmatic implementation guidance to avoid a boost in provisions

What do we know about the ECL model?

- ✓ **Theoretically**, the effect of ECL is nuanced
- Empirically, we know little, as the implementation is very recent and incomplete
 - ✓ Simulations (Abad and Suarez, 2018; Buesa et al., 2019)
 - Proxies/measures of ECL (e.g., Harris et al., 2018; Lu and Nikolaev, 2019)
 - ✓ Data from the transition period or "day-1 impact" (Gaffney and McCann, 2018; Ertan, 2019; and Löw et al, 2019)

What do we know about the ECL model?

+

- IFRS 9 provisions are more informative about bank risk (Sakasai et al., 2021)
- ✓ IFRS 9 provisions are timelier (Kim et al., 2021)
- IFRS 9 increases market discipline over bank risk-taking (Peñalba and Ormazabal, 2022)

Reporting opportunism (Bischof et al., 2023)

- IFRS 9 leads to a decline in credit (e.g., Ertan, 2020)
- CECL associated with decline in credit during COVID 19 (e.g., Chen et al., 2022)

Short-Window around Implementation: Credit Volume



Analysis "Post GFC"

From 2010Q1 to 2016Q4

	Loan Volume _{f,b,q}					
	Real Threshold Range [1.5-2.5] COP billion		Placebo Threshold Below Range [0.5-1.5] COP billion		Placebo Threshold Above Range [2.5-3.5] COP billion	
	(1)	(2)	(3)	(4)	(5)	(6)
Higher_Treatment ₅ y*WeakGDP _{q-1}	-0.05*	-0.05*	0.00	0.00	0.03	0.07
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)
Observations	99,624	99,574	115,383	115,296	77,402	77,318
R-squared	0.76	0.77	0.74	0.75	0.80	0.80
Firm-Bank FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank-Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
State-Sector-Quarter FE	No	Yes	No	Yes	No	Yes

Short-Window around Implementation: Descriptives

	Below regulatory threshold		Above regu	Above regulatory threshold		
	(Hig	(Higher treatment)		treatment)	Comparison	
	Mean	Std. Deviation	Mean	Std. Deviation	Diff	NormDiff
Loan characteristics:						
Provisions _{f,b,2007Q2}	1.3	4.1	1.4	5.7	0.0	0.04
Loan Volume _{f,b,2007Q2}	57.8	68.4	56.0	80.5	1.8	0.01
Interest Rate _{f,b,2007Q2}	18.3	3.6	18.7	3.5	-0.4	-0.01
Maturity _{f,b,2007Q2}	1.8	2.8	2.0	4.0	-0.2	0.02
Arrears f,b, 2007Q2	0.2	0.4	0.2	0.4	0.0	-0.04
Delinquency _{f,b,2007Q2}	5.4	1.5	5.5	1.4	-0.1	-0.02
Days Arrears _{f,b,2007Q2}	2.4	7.9	2.9	8.7	-0.5	-0.04
Firm characteristics:						
Loan Volume _{f,2006}	118.8	136.8	141.1	217.2	-22.3	-0.09
Liabilities _{f,2006}	561.2	382.1	744.6	675.8	-225.9	-0.24
Revenues _{f,2006}	1748.9	1853.2	2364.8	2784.2	-615.9	-0.18
Assets _{f,2006}	914.8	463.1	1282.4	948.9	-367.6	-0.35
Fixed Assets _{f,2006}	370.4	381.1	449.2	451.2	-78.8	-0.13
Bank characteristics:						
Tier1 _{b,2007Q2}	0.059	0.035	0.055	0.038	0.004	0.08
Herfindahl Firms _{b,2007Q2}	0.026	0.082	0.037	0.122	-0.011	-0.08
Herfindahl Sector _{b,2007Q2}	0.057	0.097	0.069	0.129	-0.013	-0.08
Arrears _{b,2007Q2}	0.190	0.143	0.175	0.125	0.015	0.08
Delinquency _{b,2007Q2}	0.006	0.006	0.006	0.005	0.001	0.07

Economic Cycles:

Exchange rate COP to 1 USD

