

Credit Registries, Relationship Banking and Loan Repayment

Martin Brown (Swiss National Bank)

Christian Zehnder (University of Zürich)



Motivation

- Increase in credit reporting in industrialized countries
- Many developing and transition countries are currently introducing credit registries / bureaus



Theory on Credit Reporting

- Selection / screening effect
 - Japelli & Pagano, 1993
- Disciplining effect
 - Project choice (Diamond, 1989)
 - Effort (Vercammen, 1995)
 - Repayment (Klein 1992)



Evidence on Credit Reporting

- Registries enhance credit market performance
 - Jappelli & Pagano, 2002
 - Love & Mylenko, 2003
 - Djankov et al., 2005

- Registries help lenders to screen borrowers
 - Kallberg & Udell, 2003
 - Barron & Staaten, 2003
 - Powell et al., 2004



Questions & Methodology

- Questions:

- Does a credit registry improve repayment behavior ?
- Does the impact of a credit registry depend on the degree of relationship banking ?

- Experimental Method:

- Credit market where loan repayment is not enforceable
- Compare outcome with / without credit registry
- With / without opportunity of relationship banking



Design: Credit Market

- 10 lenders & 7 borrowers
 - ID number L1...L10, B1...B7
- 20 periods
 - only one contract per period and borrower/lender
- Stage 1: Lending
 - Lenders make credit offers
 - credit size $k \in [0,50]$
 - desired repayment $\check{r} \in [0,100]$
 - who can accept (ID numbers)
 - a borrower can accept any offer adressed to him

Design: Credit Market (2)

- Stage 2: Borrowers earn certain income = $2(5+k)$
 - Stage 3: Borrowers repayment choice
 - actual repayment is either $r = \check{r}$ or $r = 0$
 - Stage 4: Credit registry
 - gathers and distributes information on repayment behavior
 - Payoffs per period
 - Lender: $50 - k + r$
 - Borrower: $2(5+k) - r$
- } Gains from trade = k

Design: Credit Registry

	<i>Borrower ID:</i>						
period	1	2	3	4	5	6	7
1	O	X	O		X	O	X
2	O	X	X	O	X	O	
3	O	X	O	O		O	
...							

O= repaid, X= not repaid, blank = no credit

Design: Treatments

Relations Registry	Not possible (Random ID)	Possible (Fixed ID)
Yes	R-CR	F-CR
No	R-NO	F-NO

Predictions (1): selfish players

Relations	Not possible (Random ID)	Possible (Fixed ID)
Registry		
Yes	<i>market collapse</i>	
No		

Predictions (2): some borrowers are „honest“

Relations Registry	Not possible (Random ID)	Possible (Fixed ID)
Yes	<i>Reputation equilibrium</i> sustained by credit registry	
No	<i>market collapse</i>	<i>Reputation equilibrium</i> sustained by bilateral relations

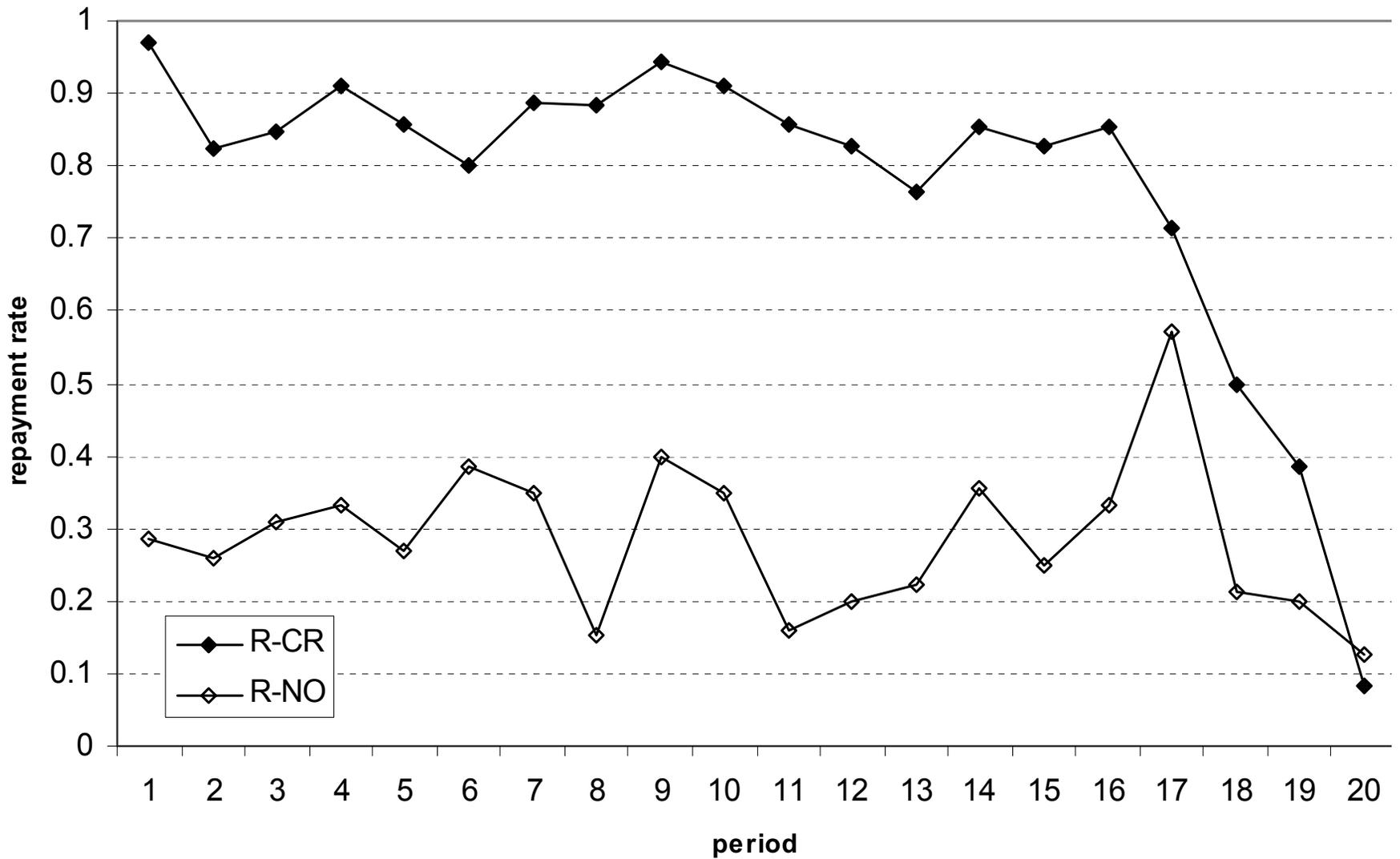


Subjects & Incentives

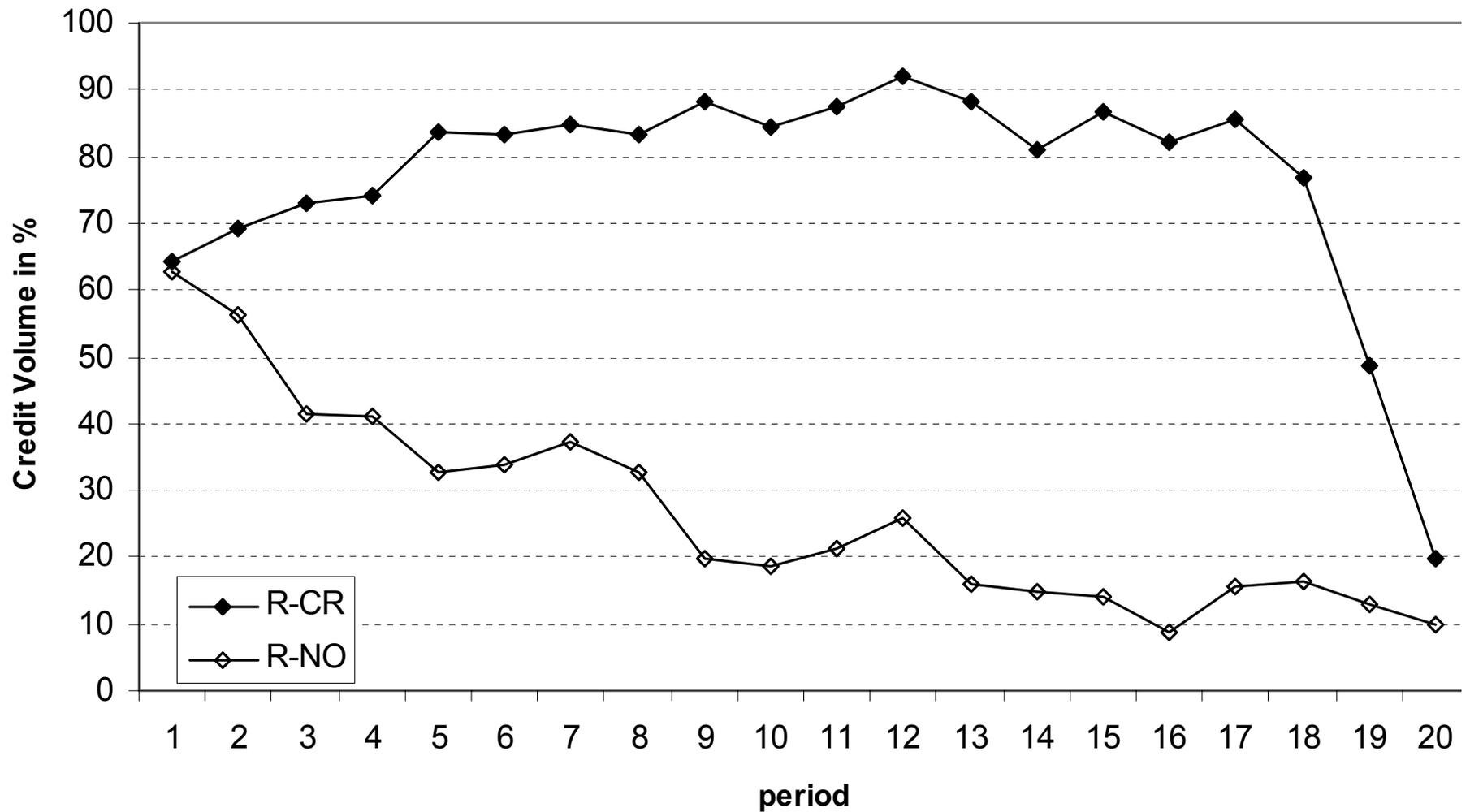
- 340 University Students
 - 5 sessions per treatment = 20 sessions
 - 17 participants per session
 - each subject in 1 session only

- Incentives
 - 7.50 \$ show up fee
 - 1 \$ per 25 points earned
 - average earnings for 2 hours: 45 \$

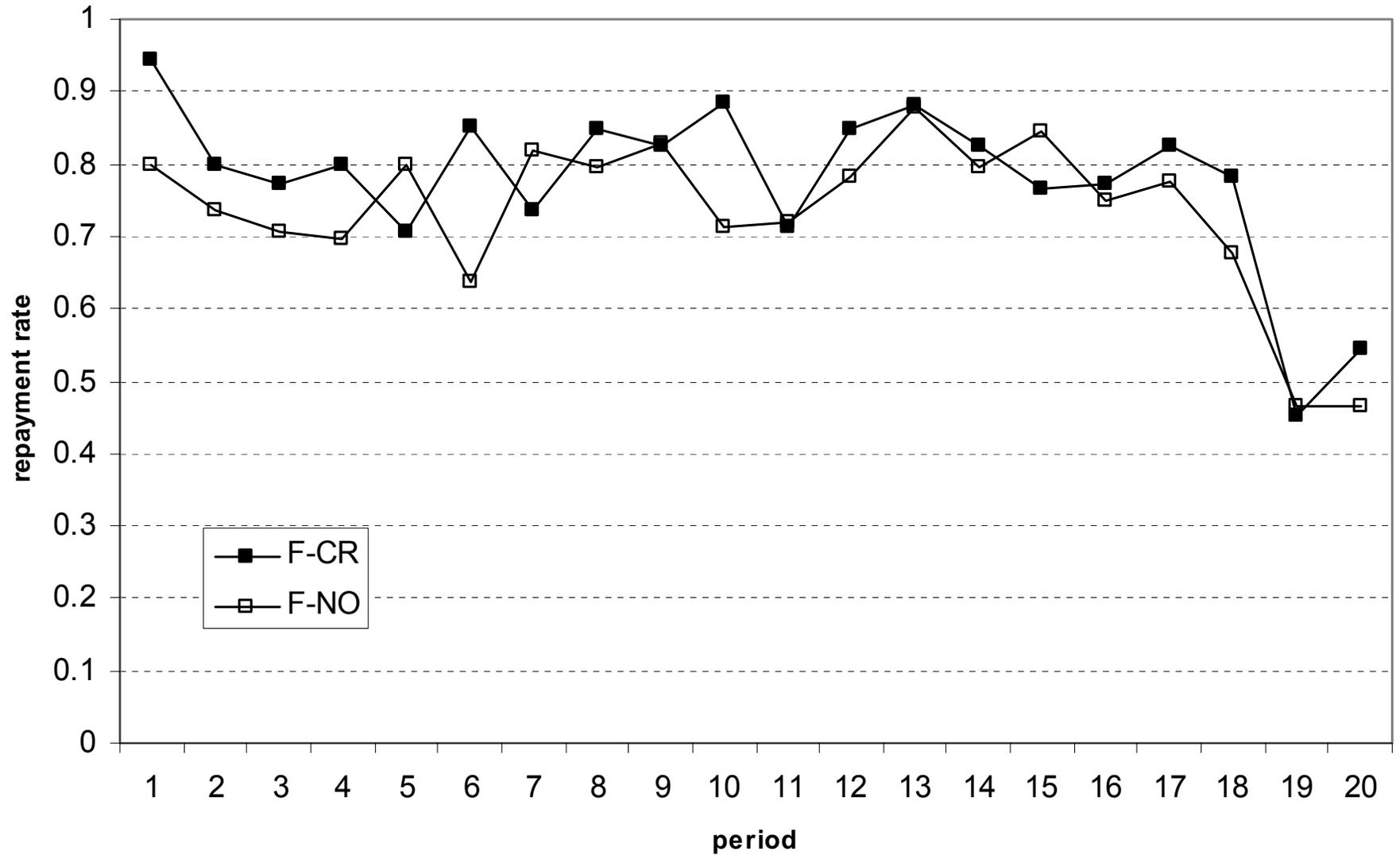
Repayment when relations not possible



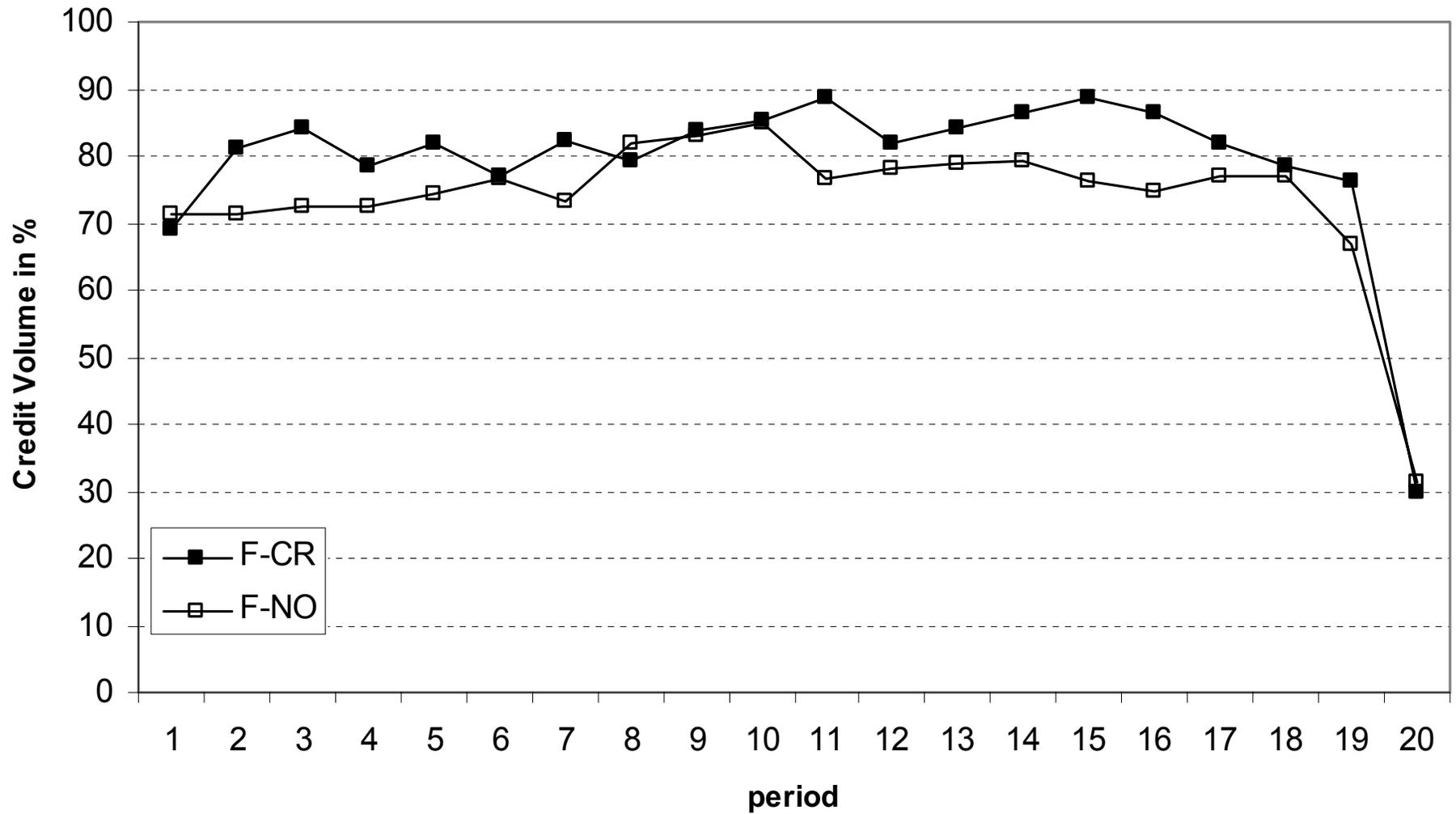
Credit Volume when relations not possible



Repayment when relations possible



Credit Volume when relations possible





Conclusions

- Credit reporting does improve repayment behavior!
 - Disciplining effect is strongest when relationship banking is weak

- Credit bureaus / registries should take the disciplining effect into account
 - Public awareness
 - Information structure