Finance Research Letters 000 (2015) 1–9

Contents lists available at ScienceDirect

Finance Research Letters

journal homepage: www.elsevier.com/locate/frl

# Synergy or downward competition? Interactions between small credit institutions in local markets

Łukasz Kozłowski*

*Kozminski University, Banking and Insurance Department, ul. Jagiellońska 57/59, 03-301 Warsaw, Poland*

A R T I C L E  I N F O

*Article history:*
Received 24 July 2015
Accepted 16 October 2015
Available online xxx

*JEL classification:*
G21
G28
L1

*Keywords:*
Cooperative banks
Credit unions
Shadow banks
Local competition

A B S T R A C T

This paper analyzes competition in Polish local bank markets based on branch geocoding. I find symptoms of synergy effects from potential collaboration between different cooperative banks. Conversely, stronger competition from credit unions, which, until recently, remained outside the official supervisory system and had poor loan portfolios, corresponds with cooperative banks' worsened loan portfolio quality and performance. The results allow for the conjecture that leaving shadow banks outside the supervisory system may create unwanted competition and may negatively influence the stability of the banking sector.



## 1. Introduction

A number of papers have investigated the stability of cooperative banks (Ayadi et al., 2010; Brunner et al., 2004; Fonteyne, 2007; Hesse and Cihák, 2007; Fiordelisi and Mare, 2013), and several authors have debated the competition-stability link among these credit institutions (Liu et al., 2012[1]; Fiordelisi and Mare, 2014). In contrast to previous authors, I examine cooperative banks' performance and stability from the perspective of the small local markets in which they operate. I also analyze competition between two groups of small credit institutions in Poland, i.e., cooperative banks and credit unions, while controlling for competition from commercial banks. The credit unions are shadow banks that remained outside of

* Corresponding author. Tel.: +48606704981.
*E-mail address:* lkozlowski@kozminski.edu.pl, lukaszkoz@gmail.com

[1] They focused on regional banks which include cooperative banks.

http://dx.doi.org/10.1016/j.frl.2015.10.011
1544-6123/

Please cite this article as: Ł. Kozłowski, Synergy or downward competition? Interactions between small credit institutions in local markets, Finance Research Letters (2015), http://dx.doi.org/10.1016/j.frl.2015.10.011

the financial supervisory system until late 2012. For the first time in the literature, my research addresses relations between lending activities by small shadow banks and the financial stability of regulated entities. To form conclusions, I employ an approach that is based on the geocoding of branches and defines local markets as circles around branches. In contrast, previous studies approached local competition with market definitions based on administrative areas (e.g., counties, municipalities or other regional administrations; see Berger and Hannan, 1989; Coccorese, 1999; Pilloff and Rhoades, 2002; Hannan and Prager, 2004). Nevertheless, it should be noted that some financial studies on different subjects have already taken directly measured proximity of locations into account (e.g., Coval and Moskowitz, 1999; Arena and Dewally, 2012; Chintrakarn et al., 2015).

Section 2 provides an institutional background and formulates the hypotheses. In Section 3, the data and the methodology are briefly outlined. Section 4 presents the results and discusses the findings, and Section 5 concludes.

## 2. Institutional background and hypotheses

Cooperative banks in Poland formally compete with each other in local markets. Competition between them is evident when we analyze the quantity of those entities, which significantly exceeds the number of counties in Poland (571 versus 380 in 2013). In fact, in 70% of the counties, three or more cooperative banks operated at the same time. It should also be noted that, although the banks belong to two associations (BPS and SGB), entities from the same association do not consolidate financial statements, and the affiliating banks provide their members with limited services[2]. Thus, from a theoretical and financial perspective, Polish cooperative banks are separate business units that run their businesses alone and could benefit from attracting the customers of their local rivals, even those from the same association. Nevertheless, despite their formal organizational and financial independence, cooperation in small local markets cannot be excluded. First, the strong financial standing of all cooperative banks in a local market stimulates clients' confidence in the cooperative banking sector, which increases the ease with which those entities compete with other financial institutions and attract new clients. Second, cooperation, the essence of the cooperative movement, is reflected in cooperative banks' mission of serving local communities, which can be easily completed through sharing of skills and knowledge with other local cooperative banks, as well as engaging in coordinated actions that generate synergy effects. Such actions, particularly marketing campaigns, are also economically justified because most of the banks have similar names (i.e., *Cooperative Bank of City X*), institutions from the same association often have similar trademarks, and these entities are formally required to inform their clients of the affiliation. Thus, customers may regard all of these as a single financial entity, although this contradicts the facts. Based on these findings, I formulate my first hypothesis:

*H1. Different cooperative banks collaborate in local markets, which generates synergy effects for them.*

In local markets, cooperative banks in Poland encounter competition not only from cooperative and commercial banks but also from cooperative non-banking financial institutions, i.e., credit unions (known as *SKOKi* in Poland). In late 2012, credit unions were placed under the supervision of the Polish Financial Supervision Authority (PFSA), which, in May 2013, made public the results of an audit of these entities. This audit proved that credit unions have a very high share of past due loans (30%, PFSA, 2013b). Therefore, 44 of 55 credit unions were required to take *corrective actions*, and the management of three of them was taken over by delegated commissioners. Table 1 presents basic financial characteristics of credit unions compared to cooperative and commercial banks at the end of 2012, and this information proves they had on average very poor equity-to-asset ratios. This raises the question of whether poor loan portfolios at credit unions worsen the financial standing of cooperative banks in accordance with the competition fragility-view (see, among others, Marcus, 1984; Keeley, 1990; Allen and Gale, 2004; Grochulski and Kareken, 2004; Beck et al., 2006; Matsuoka, 2013). Thus, I formulate the following hypothesis:

[2] The role of an entity that stays at the top of the association is mainly to report data to the supervisor on behalf of the associated banks, to provide them with clearing services, and to offer their clients additional services. The links to the affiliating entity are loose and cooperative banks are even allowed to break them and switch to a different association.