

Scale economies and cost complementarities in commercial banks: On-and off-balance-sheet activities

Julapa Jagtiani ^{a,*}, Alli Nathan ^b, Gordon Sick ^b

^a Baruch College, City University of New York, 17 Lexington Avenue, New York, NY 10010, USA

^b Faculty of Management, The University of Calgary, 2500 University Drive N.W., Calgary, AB T2N-1N4, Canada,

Received June 1992; final version received February 1994

Abstract

Bank off-balance-sheet (OBS) activities have grown dramatically, and have become significantly important especially at large banks. We investigate whether failure to incorporate OBS products may lead to a misspecification problem. Models that exclude deposits from the output specification suggest economies of scale, which vanish when deposits are included. We find that inclusion of OBS products has little effect on the scale economies measures. With only a few exceptions, the results provide no evidence of cost complementarities in joint production. The tremendous growth of bank OBS activities in the 1980s may be explained by the very small (approximately zero) pecuniary cost of these activities.

JEL classification: G21; C31

Keywords: Banks; Cost efficiencies; Off-balance sheet activities; Scale economies; Cost complementarities

* Corresponding author: 278 Stamford Avenue, Stamford, CT 06902, U.S.A. Tel.: 203-325-4620, Fax: 203-325-1939.

1. Introduction

This paper examines the impact of including off-balance-sheet (OBS) products in measures of bank cost efficiency. Several studies have analyzed cost efficiency in the banking industry ¹, but, none have investigated the impact of OBS products, which have grown dramatically over the past decade ². At year-end 1989, OBS outputs of all US banks amounted to \$5,700 billion, compared to on-balance-sheet activities of \$3,200 billion.

The new risk-based capital requirements (Basle Accord 1988) could be viewed as a regulatory tax that could cause banks to shrink their OBS production – with potential impact on bank cost efficiency. Previous studies such as Jagtiani et al. (1995), Jagtiani (1996), and Pavel and Phillis (1987) suggest that in the flat-rate capital requirement period, OBS activities may have been used as a means to avoid tying up capital. Indeed, we find that OBS activities have little impact on bank costs.

The results of this paper are significant for three reasons. First, we find that efficiency measures are sensitive to the model specification – ignoring deposits and, to a lesser extent, OBS products as outputs may result in a misspecification of the cost function. Second, we find no economies of scope in production, except between the following outputs: OBS guarantees and OBS foreign currency products; OBS foreign currency products and deposits; and, aggregate OBS items and earning assets. Third, we find that the growth of bank OBS activities is likely to continue unless there are non-pecuniary costs of these activities, or the net revenues from these activities become negligible.

The rest of the paper is organized as follows. Section 2 reviews the theoretical concepts and the empirical methods used in the cost structure analysis. Section 3 describes the data and the classification of output and input price variables. Section 4 discusses the empirical results, and Section 5 presents some conclusions and policy implications.

¹ Previous studies can be grouped into four categories based upon the institutions examined –(a) small banks: Benston et al., 1982, Berger et al., 1987, Gilligan and Smirlock, 1984, Gilligan et al., 1984, Gropper, 1991, Kolari and Zardkoohi, 1987, Lawrence and Shay, 1986, and Shaffer, 1984; (b) large banks: Hunter and Timme, 1986, Hunter and Timme, 1991, Hunter et al., 1990, Noulas et al., 1990, Shaffer and David, 1991 and Shaffer, 1993; (c) large and small banks: Berger and Humphrey, 1991, Nathan, 1990, and Nathan and Neave, 1989, Nathan and Neave, 1992; and (d) non-bank financial institutions: Goldberg et al., 1991, Le Compte and Smith, 1990, Mester, 1987, Mester, 1990, Mester, 1991, and Murray and White, 1983. Also see Gilbert, 1984, and Clark, 1988, for a survey.

² Hunter, Timme and Yang (1990) include a proxy for some OBS items (letters of credit and securitization activities) in their study, but do not specifically analyze the effects on cost efficiency. Mester (1990) incorporates loan sales as a non-traditional output, but does not take into consideration other OBS products.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات