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# IT and European Bank Performance

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*To my husband Francesco.  
To my parents Luigi and Maria.*

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# Foreword

It is almost 25 years (1983) since we first stated the need to redefine the cost function of a financial intermediary in order to capture the pervasive effect of information technology (IT) on the structural business, and specially to define the cost function of technology and its components. The original idea was to view the technological function “as a complex variable whose configuration is such as to necessarily involve the very nature of the production function” and “as the element of constitutive interconnection between the flux in environmental variables, strategy, structure and operational mechanisms” (Fusconi, 1996, pp. 480–481). A collateral effect of this phenomenon was the need to focus the attention on the relevance of organisational themes and operating performance as strategic variables, in a context of market globalisation where the role of interest rates diminished in favour of operating efficiency. Notwithstanding the pervasiveness of technology was – and remains – a certainty, the impact of technology on performance remained uncertain: it was not clear whether technology was able to generate improvements in bank performance (either as cost minimisation or revenue maximisation) or was only motivated by organisational reasons. Now, this distinguished book does so and represents a concrete approach to verify not only on a theoretical but also on an empirical basis the majority of the questions overlooked.

Nowadays, there still remains some doubt as to whether the massive spending on IT by banks has positively influenced performance or productivity in the sector. In fact, there is some evidence that the so-called “productivity paradox” still exists in US banking – where IT appears to have had a negative impact on bank productivity. Also, a recent debate has emerged emphasising the strategic role to attribute to IT investments (IT as a strategic necessity vs a strategic opportunity) that also appears to have inconclusive views as to whether significant IT spending really boosts bank performance.

In spite of its importance, no great body of literature is devoted to the study of IT spending in banking, especially with reference to European banks. This comprehensive book will be the first to provide a systematic appraisal of this area and will be the first to analyse whether the billions of dollars spent on IT by European banks have impacted on their performance.

In this unique publication, the author provides an insight into the role of IT in European banking and investigates whether IT investments in hardware, software and other IT services have influenced on bank performance. In particular, the author proposes a scientifically rigorous methodological approach capable of isolating the effects of investment in technology on the performance of banks. The approach aims to bring together two broad areas: the IT literature (that focuses on the theories of competitive strategy) and the banking literature (in order to evaluate how IT spending has influenced bank performance and the production process).

The thesis is that a new paradox, the so-called “profitability paradox”, exists in European banks: operational profit efficiencies did not improve when investment in IT increased. The introduction of IT into European banking in the latter part of the 1990s seems to be geared towards the production of products and services when, how and where the market requires. There is a shift from the use of technology in keeping with a paradigm involving the rationalisation of production processes to the use of technology in accordance with a paradigm privileging operational adequacy and the market. It seems that generally technology represents a strategic necessity as opposed to a variable capable of generating a competitive advantage. The adoption by the banks of information systems that are more and more expensive seems to be a structural component of the form of competition that exists in the industry – they are essential in order to enter and remain in the industry.

The text will be of interest to practitioners in the banking and IT areas as well as researchers and students interested in the role of technological developments in the financial area. It will enable bankers, IT consultants, policymakers, researchers and other interested parties to get a detailed insight into the effects of IT investments on European bank performance, and to contribute to the strategic debate on IT spending.

The banking community is enriched by this book, and I am delighted to have the opportunity to present it after having had many occasions to discuss its contents with the author, Elena Beccalli, who took her PhD under my guidance here at the Università Cattolica del Sacro Cuore of Milan, and now joins the school of distinguished researchers of our university.

Agostino Fusconi

Full Professor of Economics of financial markets and intermediaries  
Università Cattolica del Sacro Cuore, Milan

# Preface

The aim of this book is to provide an insight into the role of IT in European banking and to investigate whether IT investments in hardware, software and other IT services has influenced on bank performance. The study of IT investment in banking is an important issue because banks are the main spenders on new technology and it is widely accepted that technological developments have had a major impact on re-shaping banks' front- and back-office operations. However, there still remains some doubt as to whether the massive spending on IT by banks has positively influenced performance or productivity in the sector. In fact there is some evidence that the so-called "productivity paradox" exists in US banking – where IT appears to have had a negative impact on bank productivity. Also a recent debate has emerged emphasising the strategic role to attribute to IT investments (IT as a strategic necessity vs. a strategic opportunity) that also appears to have inconclusive views as to whether significant IT spending really boosts bank performance.

This book seeks to address these issues in relation to the IT investments in European banking. The aim is to provide a text that enables bankers, IT consultants, policymakers, researchers and other interested parties to get a detailed insight into the effects of IT investments on European bank performance, and to contribute to the strategic debate on IT spending. The approach aims to bring together two broad areas – the IT literature (that focuses on the theories of competitive strategy) and the banking literature (in order to evaluate how IT spending has influenced bank performance and the production process).

Given that so little is written about IT spending in banking this book will be the first to provide a systematic appraisal of this area and will be the first to analyse whether the billion of dollars spent on IT by European banks has impacted on their performance. In particular, it proposes a scientifically rigorous methodological approach capable of isolating the effects of investment in technology on the performance of banks. The text is of interest to practitioners in the banking and IT areas as well as researchers and students interested in the role of technological developments in the financial area.

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