

The EUROPEAN
JOURNAL
of MANAGEMENT
and PUBLIC
POLICY

VOLUME 6 • No.1 (2007).

ISSN 1726-6475

CONTENTS

Agnieszka Herdan and Cesario Mateus SHAREHOLDER WEALTH EFFECTS FROM MERGERS AND ACQUISITIONS: EVIDENCE FROM THE UK BANKS 1

Ron P. McIver, LENDING IMBALANCES WITHIN CHINA'S NATIONAL BANKING SYSTEM 19

Edouard Mambu ma Khenzu, EXCHANGE RATE ARRANGEMENTS IN CONGO: HISTORY AND EMPIRICAL EVIDENCE 31

Robert W. McGee and Yeomin Yoon, TAX EVASION AND ETHICS: A COMPARATIVE STUDY OF ASIAN AND EUROPEAN OPINION 63

ABOUT THE AUTHORS 75

published by:



EUROPEAN CENTER FOR PEACE AND DEVELOPMENT
OF THE UNIVERSITY FOR PEACE ESTABLISHED BY THE UNITED NATIONS

EUROPEAN JOURNAL OF MANAGEMENT AND PUBLIC POLICY

Academic Journal and Professional Forum on Interface between Business and Society

**Published by the European Center for Peace and Development
of the University for Peace established by the United Nations**

For the Publisher: **dr Negoslav P. Ostojić**, ECPD Executive Director

ISSN 1726-6475

- Editor ŽELJKO ŠEVIĆ, Ph.D.
Professor of Accounting, Finance and Public Policy
University of Greenwich
London, England, UK
E-mail: Z.Sevic@gre.ac.uk
Permanent Visiting Professor in Business and Public Administration
European Center for Peace and Development
University for Peace established by the United Nations
Belgrade
- Editorial Assistant (Belgrade) GORDANA HOFMANN, Ph.D.
European Center for Peace and Development
University for Peace established by the United Nations
Belgrade, Serbia
E-mail: ecpd@EUnet.yu
- Editorial Assistant (London) EDOUARD MAMBU MA KHENZU, Ph.D.
University of Greenwich Business School
London, England, UK
E-Mail: me25@gre.ac.uk
- Language editor (Paris) JANE FINLAY (Paris)
- Design NATAŠA OSTOJIĆ-ILIĆ, M.A.
- Editorial Office (Belgrade) EUROPEAN CENTRE FOR PEACE AND DEVELOPMENT
University for Peace established by the United Nations
Terazije 41, 11000 Belgrade, Serbia
phone +381 11 3246 041...045 • fax +381 11 2651-344, 3240-673
e-mail: ecpd@eunet.yu, office@ecpd.org.rs • www.ecpd.org.rs

European Center for Peace and Development (ECPD) is a regional, international, educational and research organization. The ECPD represents a unique institution in Europe and has a special significance to countries of South-Eastern Europe. The ECPD was established in 1985, with the main tasks and objectives "to organize and carry out postgraduate studies, research projects and dissemination of knowledge, which contribute to the promotion of peace, development and international cooperation". Following its mission defined in its Statute, the ECPD "... brings together the intellectual potential from all parts of the world for the benefit of implementation of the programs of education and research projects devoted to the fulfilment of the ECPD aims and objectives". Dr. Simonida Marjanovic, Ambassador Paul-Marc Henry (long-serving UN Under-Secretary General and President of the OECD Development Center) and Dr. Pierre Maries-Gallois served as presidents, while Professor Norman Scott CMG, Professor Sinichi Ichimura and Professor Takehiro Togo chaired the ECPD Council. Basic tasks and objectives of the ECPD have been incorporated into its programme structure, which feature:

- (A) Studies leading to postgraduate degrees and specialist training in Management, European Union, European Union Law and International Business Law, Diplomatic Studies, Banking and Finance, Sustainable development issues,
- (B) Interdisciplinary research on sustainable development issues, regional development, multicultural, multi-confessional and inter-ethnic relations and international relations;
- (C) Organizing international meetings, conferences, round tables, symposia, and workshops on topical issues from its programme;
- (D) Publishing conference proceedings, professional and scientific texts, research papers, case-studies, textbooks, etc.

The ECPD organizational structure is based on its Executive Staff, consisting of the Executive Director and the ECPD Secretariat as well as professor's core and expert team. The ECPD Executive Director represents the ECPD in public, national and international organizations, coordinates the ECPD activities and manages the ECPD Secretariat. In focusing its activities on education and research that fosters sustainable development and promotion of peace, the ECPD has a very well-developed educational network in various countries, a number of research units and an extensive publication program (with more than 200 books published).

printed in Belgrade by Graficom-uno

EDITORIAL BOARD

Togo Takehiro, President of the Board

Blaise Allaz, Haute Ecole de Commerce,
France

David Amborski, Ryerson University, Canada

Jürgen G. Backhaus, Erfurt University, FR
Germany

Frantz F. Butynets, Zhytomyr Technical State
University, Ukraine

Anto Bajo, Institute of Public Finance, Croatia

Roberta Benini, NOMISMA, Italy

Peter Boorsma, University of Twente, the
Netherlands

Jonatan Bradley, University of the West
England, England

Philip J. Bryson, Bingham Young University,
US

Prodromos Chatzoglou, University of Xanti,
Greece

Mark Chandler, Stockholm School of
Economics in Riga, Latvia

Boris Cizelj, SBRA, Belgium

Enrico Colombatto, University of Turin, Italy

Patrick Dawson, University of Aberdeen,
Scotland

Jayesh Dahya, Baruch College, US

Tran Dat, National Economics University,
Vietnam

Mieczysław Dobija, Krakow University of
Economics, Poland

Michael Drew, Queensland University of
Technology, Australia

Eva Eberhartinger, Vienna University of
Economics and Business Administration,
Austria

Gabor Peteri, LGI Development, Hungary

Tihomir Jovanovski, University of Skopje,
Macedonia

G. Roland Kaye, University of East Anglia,
England

David M. Kemme, University
of Memphis, US

Herbert Kotzab, Copenhagen Business
School, Denmark

Chandrasekhar Krishnamurti, Monash
University, Australia

Kenneth Kriz, University of Nebraska –
Omaha, US

Yoji Koyama, Niigata University, Japan

John R. Lampe, University of Maryland, US

Mervyn K. Lewis, University of South
Australia, Australia

Jonathan R. Macey, Yale University, US

Susan Martin, University of Michigan, US

Robert W. McGee, Barry University, US

Jeffrey B. Miller, University of Delaware, US

Lucia Miree, University of New England, US

Lawrence E. Mitchell, George Washington
University, US

Philip O'Hara, Edith Cowan University,
Australia

Nickolay Nenovsky, Bulgarian National Bank,
Bulgaria

Negoslav Ostojić, ECPD, Serbia

Barry Pettman, Hull, England

Godfrey Pirotta, University of Malta, Malta

Christopher D. Rogers, University of Dundee,
Scotland

Joshua Ronen, New York
University, US

Alexander Russell, Glasgow Caledonian
University, Scotland

Mark Saunders, Oxford Brookes University,
England

Davor Savin, University of Maribor, Slovenia

Ron Singleton, Western Washington
University, US

Hideaki Shiroyama, University of Tokyo,
Japan

Jan Smolarski, University of Stockholm,
Sweden

Branislav Šoškić, Montenegrin Academy of
Sciences, Montenegro

Vladimir Stipetić, Croatian Academy of
Science, Croatia

Shyam Sunder, Yale University, US

Hideaki Tanaka, Ministry of Finance, Japan

Metka Tekavčič, University of Ljubljana,
Slovenia

Jean Tesche, US Treasury, US

Richard Thorpe, University of Leeds, England

Roland Tuninga, Maastricht School of
Management, the Netherlands

Tony Verheijen, The World Bank, US

Guglielmo M. Volpe, London Metropolitan
University, England

Markéta Vylitová, Mercer, the Czech Republic

Bruce Webber, London Business School,
England

EDITORIAL POLICY

The *European Journal of Management and Public Policy* publishes original scholarly papers across the whole spectrum of disciplines encompassing Management and/or Public Policy (widely defined). The areas of interest include Accounting, Finance, Human Resource Management, Organisational Behaviour, Industrial Organisation, Marketing, Public Administration, Public Policy, Transformation and Transition Studies, etc. but this list is by no means exhaustive. The Journal aims to be eclectic and pluralistic and, consequently, multidisciplinary work and work endorsing different (even conflicting) schools of thought is welcome. The Journal desires to be an influential policy forum and therefore the submissions must be primarily policy oriented and capable of influencing the policy processes at both the micro and macro levels. However, good quality theoretical papers, which may also be considered for publication, should clearly demonstrate the potential for replication and further extension by the professionals and policy-oriented scholars. Each paper submitted for publication will be judged, based on its own merit and international standards of excellence. The editors and referees will pay particular attention to the originality of the topic, the quality of the methodological approach, the paper's relevance for future developments of and within the discipline and the overall quality of exposition. Although the Journal promotes high quality, original empirical and theoretical work, high quality review articles are also welcome, especially if they demonstrate excellence to the extent that they may influence the directions of further research on the particular topic or in the focus area. All published papers must be accessible to both academics and practitioners, who should be able to understand papers published without being experts on the particular topic or area of research. All papers submitted will be judged in the first place by the Editor. If the paper is initially judged to be suitable for publication in the Journal, the Editor will send the paper to *at least* two anonymous referees. The referees can recommend a paper for publication without revision, publication with minor revisions, publications with major revisions and to reject publication of a submitted paper. In all cases where they recommend some changes to be made, the referees must provide a detailed report listing all the changes that are recommended. Based on the referee reports, the Editor will decide on the status of the submitted paper. The decision of the Editor is final and cannot be disputed.

The Journal aims to publish contributions of the highest quality possible that can be of interest to the wider international professional public. However, the research topics should preferably reflect research interests and traditions of Europe, notwithstanding the comparison of different approaches existing in other parts of the world.

The prospective authors may contact the Editor and respective Regional Associate Editor (if appointed) with questions regarding the suitability of the paper for the publication in the Journal. However, the final decision can only be made on the submitted full paper. The editors can assess submissions that are incomplete, using their discretion, but their comments are not binding regarding any decision on a later submitted full paper. The editors will not provide detailed comments on papers prior to formal submission to the Journal. The Editor reserves the right to return manuscripts to the authors without them undergoing the full refereeing process if, in his professional and academic judgement, the paper is not of a quality acceptable to the Journal, or for any other reason. However, the Editor or his nominee will provide a prospective author with reasons for such a decision, especially if the paper falls outside the editorial policy or the authors seriously disregarded the Notes to the Contributors, published on the back cover of the Journal.

The Journal is committed to best publishing practices and emphasises that the full referee procedure will be completed within 16 weeks from the date of submission to the Journal. The Editor will personally confirm receipt of the submission in writing and keep authors informed on the progress of their submission. Every effort will be made by the Editorial Board to inform the author of the decision within the committed 16 weeks from the date of submission. No submission fee is currently being charged.

SHAREHOLDER WEALTH EFFECTS FROM MERGERS AND ACQUISITIONS: EVIDENCE FROM THE UK BANKS

ABSTRACT

Globalisation of world economy enhances merger and acquisition transactions. It is expected that mergers and acquisitions should create shareholders wealth. However, recent studies show that only few of these combinations achieve their desired objectives. In many cases it is due to the higher than anticipated costs and lower expected returns. Some authors stress that the acquiring firms are those which most suffer from poor performance.

Most of the literature indicates that target banks gain significant abnormal returns from mergers and acquisitions (Chavaltanpipat *et al.* [1999]; Becher, [2000]; Mulherin and Boone, [2000]). Though, studies regarding the shareholders wealth effects of the acquiring banks indicate that acquiring banks experience negative impact (Mulherin and Boone [2000]; DeLong [2001]; Houston *et al.* [2001]), while others show that acquiring banks gain positive or around zero abnormal returns (Neely [1987]; Scholtens and De Wit [2004]).

The aim of this paper is to analyse, for a set of UK Banks for the period 2000-2005, the impact of merger and acquisition processes both for the acquirer and target entity. Using an event study for the period 20 days before and after the merger and acquisition announcement day we find that target banks have an accumulated abnormal return which is five times higher than acquiring counterparts.

JEL classification: G3, G34

Key words: abnormal returns, mergers and acquisitions, shareholder wealth

1. INTRODUCTION

The volume of mergers and acquisition rise significantly in the recent years due to globalization of national economies and increase in deregulation of a large number of economies sector. The main drivers of mergers and acquisitions growth are industry consolidation, cost saving, or economies of scale where the combined company can reduce duplicate operations, lower costs and maximize profits. In addition, the drivers could be also for synergies by better using of complementary resources which could lead to increase the company's revenue or its market value, absorb a major competitor and increase its power. (Balmer and Dinnie, 1999; James and Wier, 1987, Cartwright and Cooper, 1992).

Over the last two decades banking and financial services industry has experienced profound changes. One of the most important effects of this restructuring process has been increase in consolidation activity (Cybo-Ottone and Murgia, 2000). As stressed by Berger (2000) a wave of bank mergers that has reshaped the financial system. The development of mergers and acquisitions in the banking sector is affected by the extraordinary growth in competition between banks for increasing their size and the integration of national and regional financial systems (Buckley and Ghauri, 2002). The mergers and acquisitions movement will certainly continue and lead to reduce the banks number.

A common argument in banking is that cross-border mergers have a potential to improve the banking services, reduce the cost of building new branches outside the country and reduce risk of insolvency (Berger, 2000).

The literature on mergers and acquisitions reports high failure rates. Porter (1987) studied the mergers and acquisitions of 33 large US banks for the period between 1950 and 1986 and found that most of them had failed in their merger and many of them had divested more banks than they had kept. Similarly Marks and Mirvis (1998) stated that more than three quarters of mergers and acquisitions fail to achieve its desired plans; most of them produce lower than expected returns.

According to Sudarsanam (1995) the success of mergers could be regarded from the perspective of managers, shareholders, and employees. Moreover because “the interests of these three groups do not always coincide in many cases one group can win at the expense of the others. For example, a takeover can lead to high shareholder returns, but loss of managerial jobs. This conflict often drives managerial resistance to takeover bids.” (Sudarsanam, 1995, pp 213-214)

Balmer and Dinnie (1999, p. 185) disclose that many factors influence the mergers and acquisitions failure, which could be summarized as: (1) the unjustified interest given to short – term financial and other issues related to the harm of long – term corporate identity or corporate communication. (2) There is an inappropriate acknowledgement of the corporate identity and corporate communications during the merger and acquisition process. “(3) Unsuccessful mergers are often characterized by failure to secure the goodwill of a wide range of stakeholder groups common to both companies. (4) Unresolved naming issues can reflect unresolved corporate identity and corporate communications issues. (5) Integrated corporate identity and total corporate communications structures are rarely in place early on in the merger and acquisition process. (6) Gives little attention to cultural issues. (7) Interest is not given to the potential conflict between individual and corporate objectives. (8) Corporate identity and corporate communications consultants are brought in too late. (9) Reputations can be damaged, maintained, or enhanced during the merger process.”

However, according to Vaara (2003, p.859) “mergers and acquisitions have often led to slower and looser integration between the organizations and created fewer synergistic benefits than were originally expected. Most interestingly, this remains true even in cases that are generally regarded as financially successful.” Therefore managers should think carefully about the merger and acquisition decision by examining the possible benefits and reactions of the merger at the same time.

As what most of the studies showed a large percent of mergers and acquisitions failed to produce the synergistic benefits that were expected. Balmer and Dinnie (1999), as well as Amihud *et al.* (1990) and Stallworthy and Kharbanda (1988) argue that the failure of these mergers and acquisitions is related to the ignorance of corporate identity and corporate communication issues. They examine the relationship between mergers and acquisitions and the issues of corporate identity and corporate communications and the effects that could happen the merger and acquisition process. They state that “management time and attention to best practice in corporate identity and corporate communications increase the chance of a successful merger and acquisition” (Balmer and Dinnie, 1999, p 182). Moreover, they stated, “Corporate identity and corporate communication consultancy may, therefore, be seen as providing a mirror and a window, reflecting and revealing the organization’s culture and personality.” (Balmer and Dinnie, 1999, p 184)

Stock market data cast some evidence on the impact of M&A deals on shareholder value creation. A positive impact value can be explained by an increase in efficiency or in market power following the deal (Berger, 2000).

Houston *at al* (2001) analyses a sample of the largest banks mergers between 1985 and 1996 in US trying to give evidence that bank mergers create value. They focus on large bank acquisitions as “it is easier to observe the impact of larger acquisitions on performance, and large transactions are more likely to draw analyst and press attention and are more likely to have detailed disclosures associated with them”. They examining the stock market reaction to merger announcements and find little evidence of wealth creation. They try in their research to look closer at the sources of merger related gains in banking. They used a different way in their research by analysing only large bank mergers over a longer time period, and they obtained management’s projections of the merger’s estimated cost savings and revenue enhancements which allowed them to identify management’s primary object for these acquisitions.

There have been many studies regarding the wealth effects to shareholders at the announcement of the mergers and acquisitions. Mulherin and Boone (2000), DeLong (2001), and Houston *et al.* (2001) indicate that acquiring firms experience negative wealth effects. Neely (1987) and Scholtens and De Wit [2004] on the other hand show that acquiring firms gain positive abnormal returns or around zero. Grubb and Lamb (2001) stress that “The hard

reality is that only 20 per cent of all mergers really succeed and most of the mergers fail to achieve any real financial returns”

Asquith (1981), Dodd (1980) and Mandelker (1970) provide also evidence that mergers have a favourable effect on the market value of the common stock of merging companies, the acquiring firms' shareholders earn large positive abnormal returns from the merger and the acquiring firms are affected little if at all.

Similarly Cybo-Ottone and Murgia (2000) analysed the combined abnormal returns of bidder and target for different types of deals in 14 European countries. They uncover that there is a positive and significant market reaction around the short period of eleven days for transactions such as: commercial banks; focused transactions; combinations with insurance companies; domestic transactions; relatively small deals in our sample, which is anyway biased toward large size.

Campa and Hernando (2004) points out that cumulative abnormal returns occur in the days that follow the announcement and “the larger the event window the greater the marginal increase in the amount and significance of cumulative abnormal returns” (Campa and Hernando, 2004). They conclude that on average target shareholders receive significant cumulative abnormal returns from the announcement of the merger, but mean of cumulative abnormal returns to shareholders of the acquiring firm is not different from zero. Moreover they point out that in 55 per cent of the transaction returns to acquiring firms were negative. This is consistent with previous studies of Burner (2002) who also stress that the returns decline over the time.

Studies conducted by Datta *et al* (1992) as well as those of Burner (2001) find that average cumulative abnormal return are about 20 to 30 percent, however in financial industry this is slightly lower (Campa and Hernando, 2004).

Scholtens and de Wit (2004) examine some European and US banks merger. They report that US bidding banks experience negative abnormal returns as target banks earn very high returns in the period of merger announcement. Rad and Van Beek (1999) conducting research on European bidding banks realize that there are no significant abnormal returns at the merger announcement as European target banks experience positive abnormal return.

DeLong (2003) studied the announcement effects of US versus non-US banks. She finds that acquirers in non-US bank mergers earn more and non-US targets less than their US counterparts with bank sector indices as the benchmark.

On the one hand, Houston *et al.* (2001) found that the cumulative abnormal returns for the acquirers banks in his sample which was the largest 27 banks mergers and acquisitions in the US during the period 1985 – 1990 for the test period (-4, +1) was (-4.64 per cent), DeLong (2001) found that the cumulative abnormal returns for the acquiring firms in his sample of 280 mergers and

acquisition in the US for the period between 1988 and 1995 for the test period (- 10, +1) was (- 1.68 per cent). Moreover, Mulherin and Boone (2000) found that the cumulative abnormal returns for the acquiring firms in his sample which was the largest 281 mergers and acquisitions in the US during the period 1990-1999 for the test period (- 1, +1) was (-0.37 per cent). On the other hand, Neely [1987] found that the cumulative abnormal returns on his sample of 26 banks mergers and acquisition in the US for the period between 1979 and 1985 was (36.22 per cent) for the target banks and (3.12 per cent) for the acquiring banks. Scholtens and De Wit (2004) support Neely in what he has found in his sample of the largest Banks mergers and acquisition in the US and Europe for the period 1990 - 2000 where he found that the cumulative abnormal returns for the acquiring banks was (2.56 per cent).

The aim of this paper is to examine the impact of merger and acquisition processes both for the acquirer and target entity for a set of UK Banks for the period 2000-2005. Using an event study for the period 20 days before and after the merger and acquisition announcement day we find that target banks have an accumulated abnormal return which is five times higher than acquiring counterparts. The structure of this paper is as follow. In section 2 data sources, sample selection and methodology are presented. The empirical analysis results are presented in section 3 and section 4 concludes.

2. DATA SOURCES, SAMPLE SELECTION AND METHODOLOGY

The data is collected from Perfect Analysis Database, The Merger Markey Database, The National Statistics Database and the UK Business Park. The announcement date and the transaction partners are verified in the business press research, London Stock Market and Bloomberg. The sample consists of the largest domestic and cross border mergers and acquisitions of UK banks that are listed on the London Stock Exchange from the period between 2000 and 2005. Therefore the banks must have a Stock Exchange Daily Official List Number (SEDOL) and meet the following criteria: (1) Acquired or target banks are listed British Banks; (2) Deals are completed; (3) Only deals greater than £ 100 million are included and (4) market and financial statements data must be available in the press research. With this procedure the sample was of 24 domestic and cross border mergers and acquisitions.

Table 1 presents the 24 domestic and cross border mergers and acquisitions of UK banks during the period 2000-2005. HSBC and the Royal Bank of Scotland represent both 65 percent of the acquiring banks observations. Therefore the number of events is very concentrated on these two banks.

Previous studies have used two main kinds of empirical methods in analysing the effects of banks M&A on performance. On the one hand, there are many studies, which compared the pre and post M&A performance by the accounting figures (Healy *et al*, 1992, Houston *et al*, 2001). On the other

hand, many of the other studies have used the event methodology, in which the abnormal return and the cumulative abnormal return of the firm's stock prices around the time of the announcement of the M&A are used (Chavaltanpipat *et al* 1999; Becher 2000; Hatch and Johnson, 2002, and Lowinski *et al* 2004.)

TABLE 1. – Domestic and cross border mergers and acquisitions of UK banks

Acquiring Bank	Target Bank	Deal	Date
Alliance & Leicester	MBNA	GBP 225M	1-Aug-2002
Barclays	Woolwich	GBP 5.3B	22-Aug-2002
Barclays	Banco Zaragozano	GBP 788M	09-May-2003
HBOS (Halifax)	Bank of Scotland	GBP 10.4B	04-May-2001
Australia & NewZeland Banking Group	Lloyds TSB (Aus)	GBP 2.3B	27-Out-2003
HSBC	Credit Commercial de France (Fra)	GBP 6.6B	19-April-2000
HSBC	Bangkok Metropolitan Bank (Tha)	GBP 630M	20-Jul-2000
HSBC	Demirbank	GBP 137M	16-May-2001
HSBC	Household International (US)	GBP 8.6B	15-Nov-2002
HSBC	Grupo Financero Bital (Mex)	GBP 722M	25-Nov-2002
HSBC	Bank of Bermuda (US)	GBP 770M	28-Oct-2003
Royal Bank of Scotland	Natwest	GBP 20.7B	16-Mar-2000
Royal Bank of Scotland	Mellon Financial Corporation (US)	GBP 1.5B	17-Jul-2001
Royal Bank of Scotland	ICC Bank (IRE)	GBP 214M	16-Feb-2001
Royal Bank of Scotland	Medford BanCorp (US)	GBP 187M	13-Jun-2002
Royal Bank of Scotland	Commonwealth BanCorp (US)	GBP 290M	30-Sept-2002
Royal Bank of Scotland	Port Financial Group (US)	GBP 180M	17-Apr-2003
Royal Bank of Scotland	First Active (IE)	GBP 617M	07-Oct-2003
Santander Central Hispano (Spa)	Royal Bank of Scotland	GBP 348M	07-May-2003
Royal Bank of Scotland	Bank Von Ernst (Swi)	GBP 228M	10-Oct-2003
Royal Bank of Scotland	Charter One Financial Institution (US)	GBP 5.9B	05-May-2004
Standard Chartered	Grindlays (AUS)	GBP 823M	01-May-2000
Standard Chartered	Koram Bank (KOR)	GBP 100M	07-Aug-2003
Northern Rock	Legal & General Bank	GBP 131M	05-Jul-2002

Sources: Merger Market Database, UK Business Park Database, National Statistics Database and Perfect Analysis

In Healy *et al* (1992) the post and pre-acquisitions stock performance of merging companies are compared relative to matched firms to determine whether the stock performance improves following acquisitions or not.

In this paper we follow an event study methodology which has been the main practice in previous literature. In addition, this study will examine the impact of the anticipated, current and past announcements of the mergers and acquisitions and the following responses to the stock prices of the pre and post mergers activities of the banks and then calculate the abnormal returns of each of the acquiring and target banks over the different event windows.

The study focuses on the wealth effects of the acquiring and target banks by comparing their stock returns performance with a benchmark, which will be the all shares indices depending on the bidder and target country. Historical stock prices are adjusted for dividends and splits.

The market adjusted return for each stock is calculated as:

$$R_{it} = ((P_t - P_{t-1}) / P_{t-1}) - ((I_t - I_{t-1}) / I_{t-1}) \quad (1)$$

Where, R_{it} is the market adjusted return bank's stock i for event day t , P_t is the stock price at event day t , P_{t-1} is the stock price at previous day of the event, I_t is the market price at event day t and I_{t-1} is the market price at the previous day of the event.

The market return is calculated as:

$$R_{mt} = ((I_t - I_{t-1}) / I_{t-1}) \quad (2)$$

Where, R_{mt} is the return on the market index for event day t , I_t is the market price at event day t and I_{t-1} is the market price at the previous day of the event.

The abnormal return is calculated as the difference between the actual return and the expected in the event window:

$$AR_{it} = R_{it} - E(R_{it}) \quad (3)$$

Where, AR_{it} is the abnormal return for stock i for event day t , R_{it} is the actual return for stock i for event day t and $E(R_{it})$ is the expected return for stock i for event day t .

For the expected normal return we apply the index model which differs from the market model in that it assumes that $\alpha = 0$ and $\beta = 1$ for every share, in other words it uses the mean of the market return over the estimation period for expected return equivalent to $\alpha = 0$ and $\beta = 1$ and is calculated as.

$$E(R_{it}) = R_{mt} \quad (4)$$

Where, $E(R_{it})$ is the expected return for stock i for event day t and R_{mt} is the return on the market index for event day t .

The average abnormal returns are calculated as the sum of abnormal returns for the sample divided by the number of banks in the sample.

$$AAR_{it} = \left(\frac{1}{N}\right) \sum AR_{it} \quad (5)$$

Where AAR_{it} is the average abnormal returns of all the banks on event day t , N is the number of banks in the sample and AR_{it} is the abnormal return for stock I for event day t

Finally, the cumulative abnormal returns for each period is calculated as the sum of the average abnormal returns for all the test period and is calculated as:

$$CAR_{it} = \sum AAR_{it} \quad (6)$$

Where, CAR_{it} is the cumulative abnormal returns of all the banks in the sample on each period and AAR_{it} are the average abnormal returns of all the banks on event day t .

3. RESULTS

3.1. AVERAGE ABNORMAL RETURNS

In figures 1 and 2 the average abnormal returns of the target and acquiring banks for the window -20 to +20 days to the M&A announcement day are presented.

FIGURE 1. – Average Abnormal returns for target banks

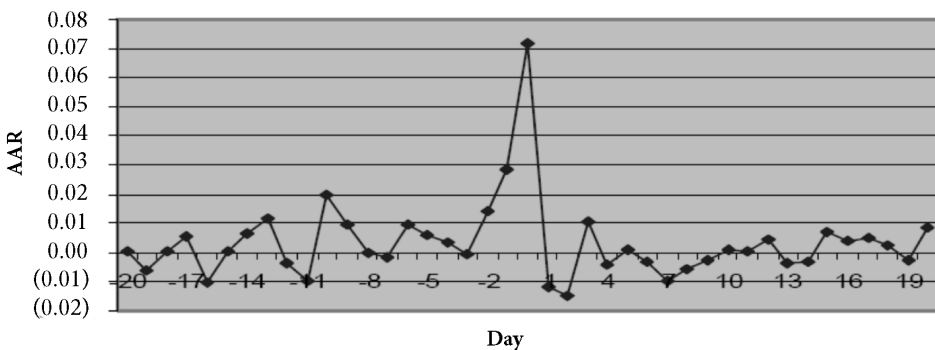
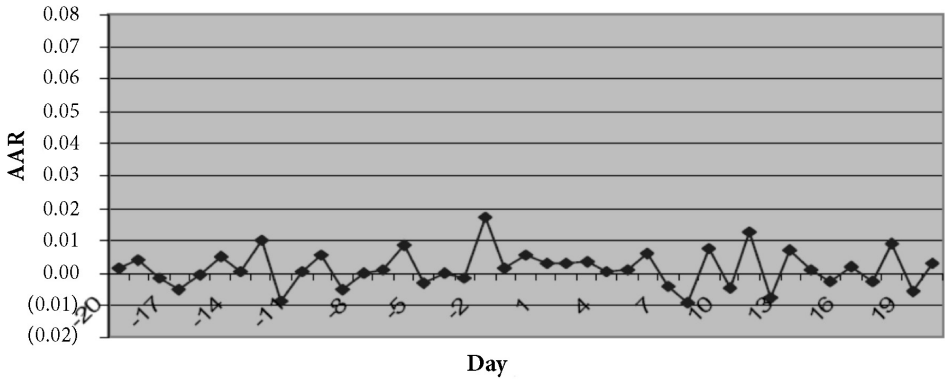


Figure 1 illustrates the average abnormal returns for target banks comparing to the market benchmark during the test period $[-20, +20]$. One can observe that the average abnormal returns are fluctuating between -1 and 2 percent in the days from -20 to -2 before the announcement day and start to increase to 2.8 per cent on the day before the announcement day. Moreo-

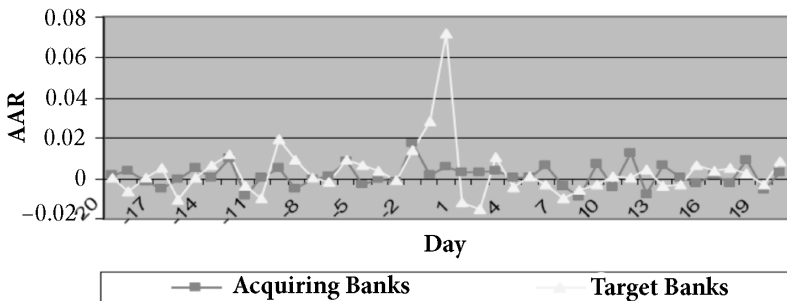
ver, on the announcement day, they realize their highest positive average abnormal return (7.2 percent) and in most of the remaining days afterwards the average abnormal return fluctuate between - 1 and 1 percent.

FIGURE 2. – Average Abnormal returns for acquiring banks



In figure 2 the average abnormal returns for the acquiring banks comparing to the market benchmark during the test period [- 20, +20] is presented. It is clear that the average abnormal returns are fluctuating around zero in the days from - 20 to - 3 before the announcement day. However, before the announcement day by 2 days, the acquiring banks realize their highest positive average abnormal return (1.7 percent). In most of the days subsequently, the average abnormal returns fluctuate around zero again.

FIGURE 3. – Average Abnormal returns for acquiring and target banks



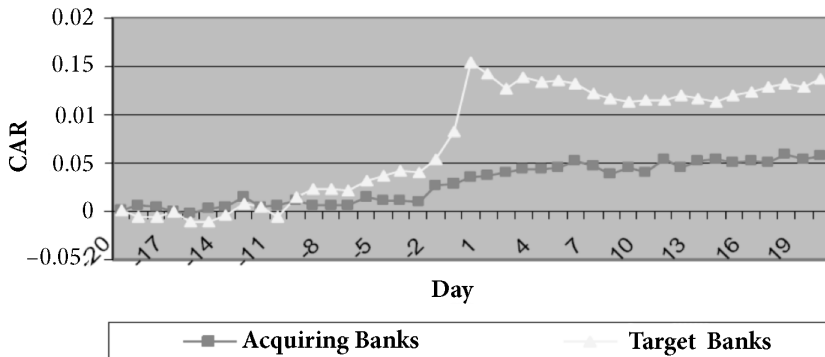
Comparing the two previous figures (see figure 3) one can conclude that the average abnormal returns are much higher for the target banks than from acquiring counterparts. The target banks realize their highest average abnormal returns at the announcement day (7.2 per cent) while the acquiring banks it

is 2 days before the announcement day. Nevertheless, figure 3 shows that the average abnormal returns for both acquiring and target banks are positive on the announcement day.

3.2. CUMULATED ABNORMAL RETURNS

Figure 4 shows the cumulated abnormal returns of the acquiring and target banks comparing to the market benchmark for the window $[-20, +20]$. The results demonstrate for the target banks that in the previous days from 20 to 7 days before the announcement date that the cumulative abnormal returns vary between zero and 2 percent. Moreover, before the announcement day by 6 days, the cumulative abnormal return starts to increase until reaching the highest positive value on the announcement day (15.5 percent) and starts to decrease afterwards stabilizing between 12 – 13 percent. For the acquiring banks the results are different. The results reveal that in the previous 20 days of the announcement day the cumulative abnormal returns oscillate between zero and 3 percent till reaching 3.4 percent at the announcement day. However, in most of the remaining days afterwards, the cumulative abnormal returns keep increasing until reach the highest value on day 18 (5.8 percent).

FIGURE 4. – Cumulated abnormal returns for acquiring and target banks



3.3. ABNORMAL RETURNS ON THE ANNOUNCEMENT DAY

In table 2 the abnormal returns on the announcement day of the mergers and acquisitions for the acquiring and target banks are reported. For 9 of the 24 acquirer banks the abnormal return is negative. Royal bank of Scotland experienced the highest negative abnormal returns (- 14.9 percent) when it acquired the American Commonwealth Bancorp in 2002. On the other side

TABLE 2. – Abnormal returns on M&A on the announcement day

Acquiring bank	Event day	Abnormal return (%)	Target bank	Abnormal return (%)
Alliance & Leicester	1-Aug-2002	8.17	MBNA	2.26
Barclays	22-Aug-2002	1.49	Woolwich	-0.05
Barclays	09-May-2003	-1.84	Banco Zaragozano	0.07
HBOs (Halifax)	04-May-2001	0.72	Bank of Scotland	-3.12
Australia & NewZeland Banking Group	27-Out-2003	13.57	Lloyds TSB (Aus)	-0.02
HSBC	19-April-2000	-2.52	Credit Commercial de France (Fra)	9.59
HSBC	20-Jul-2000	-1.24	Bangkok Metropolitan Bank (Tha)	-7.44
HSBC	16-May-2001	-0.42	Demirbank	36.50
HSBC	15-Nov-2002	5.36	Household International (US)	11.78
HSBC	25-Nov-2002	1.30	Grupo Financero Bital (Mex)	4.58
HSBC	28-Oct-2003	1.54	Bank of Bermuda (US)	7.08
Royal Bank of Scotland	16-Mar-2000	7.40	Natwest	1.24
Royal Bank of Scotland	17-Jul-2001	0.11	Mellon Financial Corporation (US)	-8.57
Royal Bank of Scotland	16-Feb-2001	3.24	ICC Bank (IRE)	-1.39
Royal Bank of Scotland	13-Jun-2002	0.02	Medford BanCorp (US)	18.62
Royal Bank of Scotland	30-Sept-2002	-14.98	Commonwealth BanCorp (US)	53.48
Royal Bank of Scotland	17-Apr-2003	-0.08	Port Financial Group (US)	5.26
Royal Bank of Scotland	07-Oct-2003	-0.01	First Active (IE)	1.00
Santander Central Hispano (Spa)	07-May-2003	1.33	Royal Bank of Scotland	-0.04
Royal Bank of Scotland	10-Oct-2003	0.07	Bank Von Ernst (Swi)	0.09
Royal Bank of Scotland	05-May-2004	-6.36	Charter One Financial Institution (US)	23.69
Standard Chartered	01-May-2000	0.00	Grindlays (AUS)	7.09
Standard Chartered	07-Aug-2003	0.60	Koram Bank (KOR)	10.59
Northern Rock	05-Jul-2002	-3.36	Legal & General Bank	-0.07

Australia and New Zealand group gained the highest positive abnormal returns (13.6 per cent) of the acquiring banks when they had a merger with Lloyds TSB bank in 2003.

On the other hand, 8 of the 24 target banks had negative abnormal returns on the announcement day. Mellon Financial Corporation was the one with highest abnormal return (-8.6 per cent) when Royal Bank of Scotland acquired it in 2001. Commonwealth Bancorp gained the highest abnormal returns (53.5 per cent) of the target banks when Royal Bank of Scotland acquired it in 2002. Surprisingly or maybe not the acquisition of Commonwealth Bancorp by Royal Bank of Scotland was the deal that generated the highest positive abnormal return from the target side and the highest negative abnormal return from the acquirer side.

Overall the results show that in only two deals, both the acquiring and the target banks had negative abnormal returns and nine in which had positive abnormal returns. For the rest of the deals one of the parties has experienced negative abnormal returns. By calculating the sample average for both the acquiring and target banks on the announcement day one could conclude that target and acquiring banks gained respectively a 7.18 and 0.55 per cent abnormal returns, on average.

Table 3 shows the daily average abnormal returns, the cumulative abnormal returns and the *t* – statistics for the sample of 24 acquiring and target banks for the event window [- 20, +20]. For the acquiring banks, insignificant positive abnormal returns were detected during the announcement period. The abnormal returns on day - 1, day 0, day 1 and day 2 were 0.15, 0.56, 0.28 and 0.29 percent, respectively. Moreover, the abnormal returns on day - 12, day 8 and day 12 were - 0.87, 0.94 and - 0.76 percent, respectively, and statistically significant for one percent level for day 8 and at 10 percent level for day - 12 and 12.

For the target banks, on the other hand, the results show statistically significant positive abnormal returns during the announcement period. The abnormal returns on day - 1, day 0, day 1 and day 2 were 2.84, 7.18, - 1.20 and - 1.49 per cent, respectively, and statistically significant at one per cent level for day 0 and at 10 per cent level for days 1 and 2. Moreover, the abnormal returns on day - 16, day - 11 and day 7 were - 1.03, 0.97 and - 0.98 per cent, respectively being statistically significant at 10 percent level for all those days.

The cumulative abnormal returns for the acquiring banks were around zero on the pre – announcement period which can show that there was no knowledge about the M&A by the market at that time. Additionally, the cumulative abnormal returns at the end of the test period were of 5.64 percent and statistically significant for one percent level. This result is in contrast with Houston *et al.* (2001) and Delong (2001), but consistent with Neely (1987) and Scholtens and De Wit (2004).

TABLE 3. – Abnormal and cumulative returns to acquiring and target banks

Event Day	Acquiring Banks			Target Banks			
	AAR	t-value	CAR	t-value	AAR	CAR	t-value
-20	0.001492	-0.610	0.001492	-2.294*	0.000410	0.000410	-3.101***
-19	0.003859	0.327	0.005351	-1.348	(0.0061338)	(0.005728)	-2.997**
-18	(0.001535)	-0.973	0.003816	-4.10***	0.000264	(0.005464)	-3.356***
-17	(0.004960)	-1.203	(0.001144)	-2.815**	0.005285	(0.000179)	-2.305**
-16	(0.000483)	-0.707	(0.001627)	-3.396***	(0.010349)	(0.010528)	-4.030***
-15	0.004956	0.794	0.003329	-1.846*	0.000457	(0.010071)	-3.054**
-14	0.000333	-0.438	0.003661	-3.505***	0.006512	(0.003559)	-2.440**
-13	0.010194	1.755*	0.013856	-0.682	0.011766	0.008207	-2.346**
-12	(0.008717)	-2.454*	0.005138	-4.733***	(0.003906)	0.004301	-3.390***
-11	0.000400	-0.440	0.005538	-3.001**	(0.009725)	(0.005423)	-3.950***
-10	0.005278	0.811	0.010816	-1.924*	0.019588	0.014165	-1.389
-9	(0.005298)	-1.35	0.005519	-3.148***	0.009434	0.023599	-1.754*
-8	0.000067	-0.357	0.005585	-2.328*	0.000084	0.023683	-2.657**
-7	0.000756	-0.216	0.006341	-2.405*	(0.001807)	0.021876	-2.915**
-6	0.008681	1.928*	0.015022	-1.158	0.009378	0.031255	-2.066*
-5	(0.003225)	-1.349	0.011797	-3.898***	0.006210	0.037465	-2.307**
-4	(0.000231)	-0.404	0.011566	-2.105*	0.003556	0.041021	-2.945**
-3	(0.001516)	-0.671	0.010050	-2.613**	(0.000737)	0.040284	-2.483**
-2	0.017164	2.326**	0.027213	0.516	0.013982	0.054266	-1.852*
-1	0.001502	-0.056	0.028715	-1.974*	0.02841	0.082687	-0.395

Event Day	Acquiring Banks			Target Banks				
	AAR	t-value	CAR	t-value	AAR	t-value	CAR	t-value
0	0.005591	0.346	0.034306	-0.659	0.071819	2.242**	0.154506	1.264
1	0.002839	0.114	0.037145	-1.285	(0.011970)	-1.789*	0.142536	-3.904***
2	0.002943	0.207	0.040089	-1.889*	(0.014902)	-2.629**	0.12734	-4.445***
3	0.003686	0.357	0.043774	-1.787*	0.010483	0.663	0.138117	-2.115**
4	0.000553	-0.413	0.044327	-2.914**	(0.004200)	-1.349	0.133917	-3.894***
5	0.000740	-0.239	0.045068	-3.059**	0.000994	-0.610	0.134911	-2.911**
6	0.006200	0.843	0.051267	-1.362	(0.003127)	-0.997	0.131784	-3.149***
7	(0.003942)	-1.067	0.047325	-3.182***	(0.009817)	-2.199**	0.121967	-3.866***
8	(0.009392)	-2.900***	0.037933	-4.435***	(0.005776)	-1.384	0.116191	-3.203***
9	0.007483	0.942	0.045417	-1.010	(0.002864)	-1.177	0.113327	-2.999**
10	(0.004692)	-0.889	0.040725	-2.154*	0.001129	-0.585	0.114456	-2.520**
11	0.012449	1.473*	0.053174	-0.166	0.000583	-0.639	0.115038	-3.350**
12	(0.007574)	-2.063**	0.045600	-3.574***	0.004738	-0.142	0.119776	-2.491**
13	0.00857	-1.341*	0.052457	-1.633*	(0.003474)	-1.399	0.116302	-3.507***
14	0.000730	-0.244	0.053187	-2.255*	(0.003153)	-1.345	0.113149	-3.111***
15	(0.002432)	-0.793	0.050755	-2.731**	0.006799	0.155	0.119948	-2.359**
16	0.001802	-0.005	0.052557	-2.156*	0.003868	-0.208	0.123816	-2.378**
17	(0.002552)	-1.227	0.050004	-3.025**	0.005084	-0.098	0.128900	-2.856**
18	0.008981	1.620**	0.058985	-0.890	0.002338	-0.596	0.131238	-2.779**
19	(0.005578)	-1.472*	0.03407	-3.298***	(0.002864)	-1.219	0.128374	3.311***
20	0.003012	0.407	0.05418	-3.357***	0.008625	0.407	0.136998	-2.295**

Neely (1987) found for a sample of US bank M&A during the period 1979-1985 that the cumulative abnormal returns for the acquiring banks were 3.12 percent. Moreover, Scholtens and De Wit (2004) found for the largest bank mergers and acquisitions both in the US and Europe for the period 1990-2000 that the cumulative abnormal returns for the acquiring banks were 2.56 percent.

On the other hand, for the target banks, the cumulative abnormal returns realize the highest value on the announcement day with 15.45 per cent being statistically significant for one percent level. This result is consistent with other studies, which found that target banks gain significant abnormal returns from mergers and acquisitions (Chavaltanpipat *et al.*, 1999; Becher, 2000; Mulherin and Boone, 2000; DeLong, 2001 and Houston *et al.*, 2001).

As a resume for the cumulative abnormal returns for the acquiring and target banks results, one can conclude that the target banks have much higher cumulative abnormal returns than the acquiring banks. This is reasonable because the acquiring banks in most of the mergers and acquisitions deals are paying for these deals over the target banks value considering the competition from other bidders (Jarrel *et al.*, 1988).

On the contrary, the results of the acquiring banks wealth effects are in contrast with the expectations, since it was expected that the cumulative abnormal returns for the acquiring banks would be negative or at least zero. Therefore, more tests are carried out in this paper by comparing the cumulated abnormal returns for the acquiring and target banks over different time periods.

3.4. COMPARING TIME PERIODS

In table 4 the cumulative abnormal returns of the acquiring and target banks for different event windows are presented.

Using the same methodology of Becher [2000] we test the cumulative abnormal returns for 5 different event windows. For the pre – announcement period the $[-20, -1]$ window is used, $[-20, 1]$ and $[-1, 1]$ are used for the announcement period and finally the event windows $[-1, 20]$ and $[-20, 20]$ for the post – announcement period.

The results show that there is a great difference in the cumulated abnormal returns between the acquiring and target banks. For the pre – announcement period, the cumulative abnormal returns for the acquiring banks were 2.87 per cent and statistically significant for one percent level. In addition, for the announcement and post – announcement periods, the cumulative abnormal returns for the acquiring banks on $[-20, 1]$, $[-1, 1]$, $[-1, 20]$ and $[-20, 20]$ event windows were 3.71, 0.99, 2.92 and 5.64 per cent, respectively, and statistically significant for one percent level in all the groups. However, the

cumulative abnormal returns for the target banks on $[-20, 1]$, $[-1, 1]$, $[-1, 20]$ and $[-20, 20]$ event windows were 14.25, 8.83, 8.27 and 13.70 percent, respectively, and statistically significant for one percent level for all event windows.

TABLE 4. – Cumulative Abnormal Returns of Acquiring and Target Banks over different periods

CAARS of acquiring Banks		
Event Window	CAR	t – statistic
$[-20, 20]$	5.64%	8.707***
$[-20, -1]$	2.87%	4.788***
$[-20, 1]$	3.71%	4.694***
$[-1, 1]$	0.99%	2.494*
$[-1, 20]$	2.92%	11.792***
CAARS of target Banks		
Event Window	CAR	t – statistic
$[-20, 20]$	13.70%	8.005***
$[-20, -1]$	8.27%	3.070**
$[-20, 1]$	14.25%	3.002**
$[-1, 1]$	8.83%	3.255**
$[-1, 20]$	8.27%	23.164***

The results show that the target banks earn statistically significant positive cumulative abnormal returns in any of the event windows analysed. These results are fairly consistent with those found in previous studies (Chavaltanpipat *et al.*, 1999; Becher, 2000; Mulherin and Boone, 2000; Delong, 2001, and Houston *et al.*, 2001). Moreover, one could conclude that mergers and acquisitions create significant wealth for targets. On the other hand, for the acquiring banks, the results show that they earn also statistically significant positive cumulative abnormal returns in an of the event windows analysed. These results are in contrast with Houston *et al.* (2001) and Delong (2001),but consistent with Neely (1987) and Scholtens and De Wit (2004).

4. CONCLUSION

An event study methodology was used in this paper to examine the impact of the anticipated, current and past announcements of mergers and acquisitions on the short-term shareholder wealth effect of acquiring and target banks. A sample of 24 UK domestic and cross border bank mergers and acquisitions during the period 2000-2005 was analysed for the event window $[-20, 20]$. The results show that target banks gain significantly positive abnormal returns as well as acquiring banks. Additionally, the results show differences in the cumulated abnormal returns between target and acquiring banks, where

target banks gain higher significant abnormal returns than acquiring counterparts.

Furthermore, more event windows were carried out to provide this study with a more accurate result in terms of shareholder wealth for both acquiring and target banks. The results show again that both target and acquiring banks realize significant positive cumulative abnormal results in any of the event windows.

In general, the findings show that the results for target banks are consistent with previous literature. In what respect to acquiring banks the results are consistent with some of previous studies and in contrast with others. Therefore there is no consistence on the results for the acquiring banks.

A future direction to our research is to extend the analysis to a larger sample and overcome the problem that could arise from some of the chosen banks in the sample, had more than one merger and acquisition. Therefore, it is possible that some previous mergers and acquisitions could also have some effect on their following mergers or acquisition.

REFERENCES

- Amihud Y., DeLong G.L., Saunders A. (2002), The effects of cross-border bank mergers on bank risk and value, *Journal of International Money and Finance*, **21**(6), pp. 857-877
- Asquith P. (1981), *Mergers bids, market uncertainty and shareholders return*, Harvard University, working paper 1981
- Balmer J., Dinnie K. (1999), *Corporate Identity and Corporate Communications: The Antidote to Merger Madness*, *Corporate Communications: An International Journal*, **4**(4), pp. 182-192
- Becher D. (2000), The Valuation Effects of Bank Mergers”, *Journal of Corporate Finance*, **6**, pp. 189-214
- Berger A. (2000), The big picture of bank diversification proceedings, *Federal Reserve of Chicago*, May, pp. 162-174.
- Buckley P., Ghauri P. (2002), *International Mergers and Acquisitions*, London, Thomson
- Burner R. (2002), Does M&A pay? A survey evidence for decision-maker, *Jornal of Applied Finance*, pp. 48 – 68
- Campa J.M., Hernando I. (2004), Shareholder Value Creation in European M&As, *European Financial Management*, **10**(1), pp. 47 – 81
- Cartwright S., Cooper C. (1992), *Mergers & Acquisitions: The Human Factor*, Oxford, *Butterworth-Heinemann Ltd*
- Chavaltanpipat A., Kholdy S., Sohrabian A. (1999), The Wealth effects of bank acquisitions, *Applied Economics Letters*, **6**, pp. 5-11
- Cybo-Ottone A., Murgia M., (2000) Mergers and shareholder wealth in European banking, *Journal of Banking and Finance*, **24**(6), pp. 831-859
- Datta K. (1991), Organizational fit and acquisition performance effects of post acquisition integration, *Strategic Management Journal*, **12**, pp. 281-297
- Delong G. (2001), Stockholder gain from focusing versus diversifying bank merger, *Journal of Financial Economics*, **59**, pp. 221 – 251

- DeLong G.L. (2003), The announcement effects of US versus non-US bank mergers: do they differ?, *Journal of Financial Research*, Vol. **26**, pp. 487 – 500.
- Dodd P. (1980), Merger proposal, management discretion and shareholders wealth, *Journal of Financial Economics*, **8**, pp. 105-138
- Grubb T., Lamb R. (2001), Capitalize on merger chaos, *The Free Press*, New York
- Houston J., James C., Ryngaert M. (2001), Where Do Merger Gains Come From? Bank Mergers from the Perspective of Insiders and Outsiders, *Journal of Financial Economics*, **60**, pp. 285-331
- James C., Wier P. (1987), Returns to Acquirers and Competition in the Acquisition Market: The Case of Banking, *Journal of political Economy*, **95**, pp. 355-370
- Mandelker G. (1970), Risk and return the case of merging firms, *Journal of Financial Economics*, **1**, pp. 303-336
- Marks M., Mirvis P. (1998), *Joining Forces*, Jossey-Bass, San Francisco
- Mulherin S., Boone A (2000); Company acquisition and diversitures, *Journal of Corporate Finance*, **6**, pp. 117 – 139
- Neely W. (1987), Banking Acquisitions: Acquirer and Target shareholder returns, *Financial Management*, **12**, pp. 66-74
- Porter M.(1987), From competitive advantage to corporate strategy, *Harvard Business Review*, May-June, pp. 131-165
- Rad A.T., Van Beek, L. (1999), Market valuation of European bank mergers, *European Management Journal*, Vol. **17**, pp. 532 – 539.
- Scholtens B., De Wit R. (2004), Announcement effects of bank merger in Europe and US, *Research in International Business and Finance*, **18**(2), 2004, pp. 217 – 228
- Stallworthy E., Kharbanda O. (1988), *Takeovers, Acquisitions and Mergers*, London, Kogan Page Ltd
- Sudarsanam S., (1995), *The Essence of Mergers and Acquisitions*, London, Prentice Hall
- Vaara, E. (2003), *Post-Acquisition Integration as Sensemaking: Glimpses of Ambiguity, Confusion, Hypocrisy, and Politicization*, *Journal of Management Studies*, **40**, pp. 859-894

RON P. McIVER

LENDING IMBALANCES WITHIN CHINA'S NATIONAL BANKING SYSTEM

ABSTRACT

The objective in this paper is to explore whether patterns of lending in China evidence a bias in lending towards the state-owned sector, and thus are suggestive of the continuation of policy-based lending post the introduction of the *Commercial Banking Law* in 1995, changes to policy and regulation, and more recent moves to further commercialise the national banking system via initial public offering of shares in three of the four national state-owned commercial banks. To this end data is presented on the changing composition of GDP, the state share of industrial output, and distribution of short-term and medium- and long-term lending by pattern of ownership over the period from 1997 to 2006. This is augmented by an analysis of the state-owned shares of fixed asset investment and lending for fixed asset investment, which is required due to the lack of evidence on the composition of medium- and long-term lending. The findings of the paper are that the state-owned sector has continued to maintain/receive a share of both short-term and medium- and long-term loans that is disproportionately large relative to its shares in industrial output and fixed asset investment. This is suggestive of the continued presence of lending preferences to the state-owned sector.

Key words: China, bank and financial system reforms, composition of GDP, composition of lending, financial efficiency

1. INTRODUCTION

The commercialisation process of China's national banking system (NBS) begun in 1995-1996 has now entered its second decade. China's intent to create a commercially-oriented NBS to support continued reform of its real economy has been evidenced in: changes to financial policy and law associated with the creation of four national state-owned commercial banks (SOCBs); attempts to address non-performing loan (NPL) problems within its NBS system via SOCB reform, recapitalisation, and restructuring; official policy statements and changes to laws governing the SOCBs, joint stock commercial banks (JSCBs), city commercial banks (CCBs), and these banks' operations; and, more recently, conversion of three of its SOCBs—Bank of China (BOC), China Construction Bank (CCB), and Industrial and Commercial Bank Of China (ICBC)—to state-controlled joint stock commercial banks (SCJSCBs).

Although considerable progress has been made, questions remain about success of the last decade of reform given evidence of continued preferential/

policy lending to the state-owned enterprise (SOE) sector presented in earlier studies (eg Lardy, 2001; Laurenceson and Chai, 2001; McIver, 2005, 2006) by institutions within the NBS and financial system more broadly. Therefore this paper considers the post 1996 evolution of the patterns of bank and financial system lending and GDP growth in the Chinese economy, whether structural imbalances are apparent in the trends of the data on each, and whether preference in lending to SOEs is therefore apparent in China's NBS and financial system.

The remainder of the paper is structured as follows. Section 2 outlines changes in the composition of GDP, industrial output, and lending—particularly short-term lending—for China. The review of lending considers data from both the banking and financial systems. Problems encountered in the matching of financial and economic data are also discussed at this point. Section 3 provides additional analysis in the form of consideration of the composition of fixed asset investment and funding by form of ownership, in order to provide insight into the likely structure of long-term lending by the NBS and financial system. Section 4 provides both summary and conclusions. These include the appearance of the continued presence of policy-influenced lending in the NBS and financial systems, as reflected in a continued bias in lending towards the state-owned sector.

2. COMPARING AND CONTRASTING THE DATA ON THE COMPOSITION OF OUTPUT AND LOANS: BACKGROUND AND COMPLICATIONS

2.1. GDP GROWTH AND ITS SECTORAL COMPOSITION

Annual growth rates of China's GDP, growth rates of GDP by sector, and the changing composition of GDP—primary, secondary and tertiary—measured at current prices over 1997 to 2006 are presented in Table 1. What is apparent from a review of sector growth and output shares is that GDP growth has not been spread uniformly across the economy. Rather, it has been especially concentrated in the secondary and tertiary industry sectors.

Primary industry has experienced the lowest average rate of output growth at 6.1 per cent per annum. This has led to a reduction in the primary industry share of output from 18.1 to 11.8 per cent of GDP between 1997 and 2006, a fall at a rate of approximately 0.79 per cent per annum. Secondary industry had growth at 11.8 per cent per annum. However, the share of secondary industry in GDP was relatively stable, and only increased from 47.5 to 48.7 per cent over the period. Tertiary industry had the greatest rate of growth in output, with an average rate of real growth of 13.4 per cent per annum between 1997 and 2006. This led to an increase in the tertiary sector share of GDP from 34.4 to 39.5 per cent, a rise in share of around 0.64 per cent per annum from 1997 to 2006.

TABLE 1. – Growth rates in China's GDP and GDP by sector (% p.a., current prices), and sector shares in China's GDP (% at current prices)

Year	Growth rate			GDP	Sector share		
	Primary Industry	Secondary Industry	Tertiary Industry		Primary Industry	Secondary Industry	Tertiary Industry
1997	2.7	11.0	15.8	11.0	18.1	47.5	34.4
1998	2.5	3.9	13.3	6.9	17.3	46.2	36.5
1999	-0.5	5.2	10.8	6.2	16.2	45.8	38.0
2000	1.2	11.0	14.2	10.6	14.8	45.9	39.3
2001	5.4	8.7	14.6	10.5	14.1	45.2	40.7
2002	4.7	8.9	12.5	9.7	13.5	44.8	41.7
2003	5.1	15.8	12.2	12.9	12.6	46.0	41.4
2004	22.8	18.4	15.4	17.7	13.1	46.2	40.7
2005	10.1	17.8	12.2	14.5	12.6	47.5	39.9
2006	7.1	16.8	12.6	13.9	11.8	48.7	39.5
<i>Average</i>	<i>6.1</i>	<i>11.8</i>	<i>13.4</i>	<i>11.4</i>			

Source: Underlying data from Datastream and National Bureau of Statistics China (2006).

Notes: Primary industry refers to agriculture—including farming, forestry, animal husbandry and fishery. Secondary industry refers to activities categorised as industry—including mining and quarrying, manufacturing, production and supply of electricity, water and gas—and to construction. Tertiary industry refers to all other industries not included in primary or secondary industry, and is categorised into industries involved in the circulation of goods, services and information, and those providing services for production and consumption, the upgrading of scientific, educational and cultural levels, and the provision of services for public needs. GDP growth rates are calculated from GDP estimated using the industry approach to measurement.

Table 2 highlights the presence of a rapid decline in the share of the value of industrial output provided by state owned (and collective owned) enterprises, accompanied by a rise in the share provided by industrial enterprises with other forms of ownership. The 'Other ownership' category in Table 2 includes: individual, joint, share holding, foreign funded, Hong Kong, Macau and Taiwan funded, and other ownership structures. As will be discussed in Section 3, the measured fall in the state share of industrial output at some 3.54 per cent per annum between 1998 and 2006 is undoubtedly overstating the decline in the role of the state in industrial production. This is because the focus in the data in Table 2 is on wholly government-owned enterprises, and ignores the role of the Chinese state in joint ownership and share holding ownership structures.

TABLE 2. – Shares of Gross output value of industrial production by ownership (%)

Year	State owned	Collective owned	Other ownership
1998	38.6	27.3	34.1
1999	31.3	18.8	49.9
2000	28.1	15.3	56.6
2001	19.6	13.0	67.4
2002	16.5	9.0	74.5
2003	13.6	6.8	79.7
2004	11.7	5.4	82.9
2005	10.9	3.9	85.2
2006	10.3	3.0	86.7

Source: Underlying data from Datastream.

2.2. OBJECTIVES AND COMPLICATIONS IN COMPARING THE GROWTH IN AND COMPOSITION OF GDP AND PATTERNS IN BANK AND FINANCIAL SYSTEM LENDING

Effective changes to government policy regarding lending criteria and the role of banks in the process of financial system liberalisation should have an observable impact on the composition of lending observed within the banking and financial systems. Evidence would include the movement over time of loan funds towards those groups that utilise it relatively efficiently. This may result, for example, if financial liberalisation reduces the level of financial constraint facing small firms and increases that of large firms. Thus, to the extent that SOEs are larger than their township enterprise and private sector counterparts, a shift of resources away from the SOEs should be observed following financial sector liberalisation (eg, see Laeven, 2003).

While straightforward in concept, there are considerable difficulties present in attempting to pair GDP and loan data. For loan data, sectors are poorly defined relative to the data presented in the national accounts. Additionally, within these broadly defined industries or sectors, disaggregated banking and financial statistics only present the value of short-term lending to state-owned units. Information on borrowing by, for example, foreign-funded enterprises, private individual, and township enterprises, is not disaggregated by industry or sector. Finally, allocations of medium-term and long-term loans, associated with long-term, capital or fixed asset investment, are not available in a disaggregated format at the industry or sector level.

2.3. THE SECTORAL DISTRIBUTION OF SHORT-TERM BANK AND FINANCIAL SYSTEM LENDING

TABLE 3. – Shares of short-term loans within China's national banking system (%)

Year	State sector			Non state and other short-term loans: township, foreign funded, and private enterprise loans, individual loans, and other short-term loans
	Agricultural loans (Primary industry)	Industrial and construction enterprise loans (Secondary industry)	Commercial enterprises loans (Tertiary industry)	
1997	3.5	38.3	39.3	18.9
1998	3.7	37.8	39.0	19.5
1999	3.5	36.1	37.9	22.5
2000	2.6	34.7	34.4	28.3
2001	2.9	39.9	37.7	19.5
2002	2.8	41.3	34.4	21.5
2003	2.7	40.8	31.6	24.9
2004	2.8	40.3	30.5	26.4
2005	3.3	37.4	31.4	28.0
2006	2.2	45.2	28.3	24.3

Source: Underlying data from Datastream and National Bureau of Statistics China (2006).

Note: National banks include policy banks, state-owned commercial banks, and postal savings institutions.

Information on the distribution of short-term lending is presented in Tables 3 and 4 for the national banking and financial systems. With respect to lending patterns, comparison of the data from Tables 2 and 3 on share of secondary industry in total GDP and the SOE share of industrial output, leads to some important initial conclusions. First, is that for the (state-owned) components of short-term lending identified by sector, the share of lending for secondary industry is high, relative to its contribution to GDP for both the NBS and financial system. Second, and perhaps more significant, is that the state-owned industrial sector has continued to receive a disproportionately large share of loans from the NBS over the 1997 to 2006 period, both relative to its share of industrial output and relative to that in the financial system as a whole. This is consistent with the continuation of policy-based lending practices within the SCJSCBs/SOCBs, and an area of government concern (China Banking Regulatory Commission, 2004b).

It would be expected that the SOE share of short-term loans would have changed significantly over time in line with changes in the policy role of the SCJSCBs/SOCBs. Such changes will reflect the degree to which the SOE sector is allowed to remain dependent on short-term loans to fund day-to-day operational requirements, such as the need to continue to pay expenditures

TABLE 4. – Shares of short-term loans within China's financial system (%)

Year	State sector			Non state and other short-term loans: township, three kinds of venture, private enterprises and individuals, and other short-term loans
	Agricultural loans (Primary industry)	Industrial and construction enterprise loans (Secondary industry)	Commercial enterprises loans (Tertiary industry)	
1997	6.0	32.7	33.1	28.2
1998	7.3	32.1	32.6	28.0
1999	7.5	30.4	31.1	31.0
2000	7.4	28.3	27.2	37.0
2001	8.5	30.8	27.6	33.1
2002	9.3	30.9	24.2	35.6
2003	10.1	31.4	21.5	37.6
2004	11.3	30.7	19.7	38.3
2005	13.2	29.2	18.8	38.8
2006	13.4	32.8	16.9	36.9

Source: Underlying data from Datastream and National Bureau of Statistics China (2006).

Note: Financial institutions include policy banks, state-owned commercial banks, joint-stock commercial banks, city commercial banks, rural commercial banks, urban credit cooperatives, rural credit cooperatives, non-banking financial institutions, postal savings institutions and foreign-funded financial institutions.

such as wages, and associated labour costs. This is especially the case following reform associated with the *Commercial Banking Law* in 1995. That this is or is not evident would be consistent with the strength of political motivations to ensure that changes enacted with the *Commercial Bank Law* and other regulations dealing with the lending of the SCJSCBs/SOCBs discussed previously were and are binding. It should be recognised that the political and social costs of allowing large SOEs to fail may be higher than the government is willing to bear. To the extent that this is true, the assumption of the presence of a soft-budget constraint on the part of both SOE and SCJSCBs/SOCBs managers (Shleifer and Vishny, 1994) would appear reasonable. This would ensure the continuation of a high share of the SOE sector in short-term (and other) loans. Such a bias is evident in earlier studies of the relationship between the SOEs and SOCBs, such as that of Wei and Wang (1997), which found considerable lending bias in the late 1980s to early 1990s period.

The relatively slow decline over 1997 to 2006 in the proportion of short-term loans going to the state-owned sector in the NBS relative to the total financial system, bar in 2000, and the increase in the share of short-term lending to industrial SOEs in the NBS supports the argument that there still appears to

be a considerable bias, post passage of the *Commercial Bank Law* in 1995, in lending to the industrial SOEs. The abrupt fall in the share of short-term lending to the secondary and tertiary industry components of the state-owned sector in 2000 may reflect the impact of the transfer of the NPLs from the SOCBs to their associated asset management companies (AMCs), and the impact of the introduction of the equity-for-debt swaps associated with a component of the NPLs thus transferred (McIver, 2005, 2006). This fall in the state-owned share of loans would then have been expected to hold (and continue) to the extent that these loans were not replaced by new loans to the SOE sector. However, this decline was accompanied by a rapid expansion in credit provided by the NBS in 2001, suggesting that significant additional lending to the SOE sector occurred. However, to some extent the data may also reflect the importance of industrial loans in the lending mix and heavy urban base for branches and lending activities of the SCJSCBs/SOCBs.

2.4. THE RISE OF MEDIUM-TERM AND LONG-TERM (FIXED ASSET) LENDING IN TOTAL LENDING

While the analysis of short-term lending in Section 2.3 is suggestive of a bias towards the state-owned sector, it deals with a shrinking component of the total amount of lending in China's banking and financial systems. Table 5 provides insight into the rapid increase in the importance of medium- and long-term loans—primarily fixed asset loans—as a share of total loans for both the NBS and the financial system as a whole. As a natural correspondence to this increase, we observe a decline in the relative importance of short-term loans in these systems.

TABLE 5. – Maturity structure of China's national banking system and financial system loans (% of total)

Year	National banking system			Financial system			
	Short-term loans	Medium- and Long-term loans	Other loans	Short-term Loans	Medium- and Long-term Loans	Trust Loans	Other Loans
1997	74.6	24.8	0.6	74.0	20.6	3.1	2.3
1998	70.3	27.7	0.9	70.1	23.9	2.9	3.1
1999	68.0	27.1	1.1	68.2	25.6	2.7	3.6
2000	64.5	29.1	1.0	66.2	28.1	2.4	3.3
2001	54.5	38.3	1.8	59.9	34.9	2.2	2.9
2002	50.4	40.9	3.1	56.6	37.0	1.7	4.4
2003	45.2	45.0	4.7	52.6	39.9	1.4	6.1
2004	39.8	49.6	6.5	49.0	43.2	1.1	6.7
2005	34.8	57.2	8.0	44.9	44.9	1.6	8.6
2006	33.9	58.9	7.2	43.7	47.3	1.1	7.9

Source: Underlying data from Datastream.

Medium- and long-term loans grew from almost 25 per cent of total NBS loans in 1997, to just less than 60 per cent of these loans as of the end of 2006, and from just under 21 to just over 47 per cent of all loans created within the financial system over this period. This represents increases at an average rate of around 3.8 and three per cent per year, respectively, in the shares of total lending in the NBS and financial system since 1997. Jumps in the medium-term and long-term loans in total loans observed in 1998 and 2001 would appear to reflect a positive impact from the Chinese government's recapitalisation of the four large national SOCBs in 1998, and the impact of the transfer of NPLs from these SOCBs' balance sheets in 2000 and 2001 to their AMCs in exchange for cash and bonds (McIver, 2006).

The increase in the share of medium- and long-term loans in total lending supports additional analysis of their structure in order to determine the significance of the state sector in this form of lending, the focus of Section 3.

3. THE STATE-OWNED SHARE OF FIXED ASSET INVESTMENT AND LENDING

As noted previously, data on the state-owned units' share of the stock of medium- and long-term loans is not directly available. Instead we must rely on information on both fixed asset investment and new fixed asset loans, which indicate flows. Finally, information on the share of loan funding in total fixed asset investment funding for state-owned units is also required. This allows estimation of the share of the state in fixed asset loans over the commercialisation period, and thus inferences to be drawn re changes in the share of the financial system's stock of medium- and long-term loans that have been made to the state sector.

TABLE 6. – Fixed asset investment by category of control (% of total)

Year	State-owned units	Share holding units	Collective-owned, joint ownership, individual economy, foreign funded, Hong Kong, Macao and Taiwan funds, and others
1997	52.5	5.6	41.9
1998	54.1	6.9	39.0
1999	53.4	8.3	38.3
2000	50.1	12.3	37.5
2001	47.3	15.2	37.5
2002	43.4	19.1	37.5
2003	39.0	22.9	38.1
2004	35.5	25.1	39.4
2005	33.4	26.5	40.1

Source: Underlying data from Datastream and National Bureau of Statistics China (2006).

To gain insight into the share of the state sector in fixed asset loans, albeit imperfectly, data on the state-owned units' share of new fixed asset investment, the share of domestic loan funding in the total funding of new fixed asset investment, and the share of loan funding in state-owned units new fixed asset investment (in selected years for which data is available), is presented in Tables 6 and 7. The final column of Table 7 assumes that the state-owned share of new fixed asset investment loans can be estimated from the lending data contained to give some insight into its relative size.

TABLE 7. – Domestic loans as funding for fixed asset investment (%) and estimated state-owned unit share of new fixed asset loans (%)^a

Year	Domestic loans as a percentage of funding for total fixed asset investment	Loans as a percentage of funding for state-owned units fixed asset investment	Estimated share of state-owned units in new fixed asset loans ^a
1997	18.9	23.0	63.9
1998	19.3	23.2	65.0
1999	19.2	23.4	65.1
2000	20.3	25.2	62.2
2001	19.1	23.1	57.2
2002	19.7	n.a.	52.7
2003	20.5	25.6	48.7
2004	18.5	n.a.	45.9
2005	17.3	n.a.	46.1

Source: National Bureau of Statistics China (2006), National Bureau of Statistics China (2002), and National Bureau of Statistics China (2000).

Notes: n.a. data was not available.

^a The state-owned units' share of fixed asset loans was estimated by using the ratio of the loan share of fixed asset investment funding of state-owned units relative to the loan share of funding in total fixed asset investment and the share of state-owned units in fixed asset investment (Table 6). Where data on the loan share of fixed asset investment funding for state-owned units was not available, it was assumed that this figure took the average value of the observations in the available data, at 23.9 per cent.

Although identifying that the state-owned sector has received a disproportionately high share of new financial system lending for fixed asset investment due to its heavier reliance on loan funding—the flow—the data of the final column of Table 7 does not allow an estimate of the state-owned share of total financial system lending to be derived with high confidence—the stock. However, inasmuch as these estimates capture the fact that state-owned units have been relatively more reliant on domestic loan funding for their investment in fixed assets than is the case for all investors, this provides some insight into the state-owned share of fixed asset lending.

The estimates in the final column of Table 7 are consistent with a continued policy emphasis in lending decisions made by the SCJSCBs/SOCBs and oth-

er elements of the financial system during the commercialisation process of China's NBS. This suggests that while the share of new fixed asset lending received by the state-owned sector has declined, it would appear to have declined less than would be expected following the initiation of reforms to the laws and regulations covering the lending practices of the SCJSCBs/SOCBs in the mid and late 1990s. Consistent with the findings of International Finance Corporation (2000), it can be concluded that overprovision of long-term funding to the inefficient SOE sector, particularly industrial SOEs, and hence the lack of provision of long-term funding to the non-state sector, has distorted and potentially constrained China's real economic growth.

4. SUMMARY AND CONCLUSIONS

The analysis presented in this paper has juxtaposed changes in the pattern of lending within China's NBS and financial system against changes in the composition of China's GDP over the period focused on commercial reform of the NBS begun in 1995-1996. To the extent that the data on output and lending is sufficiently consistent to allow this, it has made possible the identification of distortions in the pattern of lending, and thus potential inefficiencies in the allocation of funds, to be highlighted as continuing over this period.

In terms of the presence of distortions in the patterns of lending observed in the NBS, a number of biases familiar from the literature dealing with China's earlier financial reforms may be recognised (eg Cheng and Cheng, 1998; Huang and Yang, 1998; Lardy, 1998; 1999; Holz, 2000; Bonin and Huang, 2001; and Park and Sehrt, 2001). Consistent with the conclusions of these earlier studies, it is apparent that policy-directed or ('favoured') lending appears to have continued to have a significant influence on the provision of loan funding to the state-owned sector, particularly in the NBS. A heavy reliance on loans for fixed asset investment is also consistent with the existence and continuation of a soft budget constraint for managers of loss-making firms, especially in the industrial SOE sector, which must also rely on the failure to develop a true bank credit culture at the SOCBs (OECD, 2000, p. 87). These features are frequently observed in socialist transition economies, where the dominance of the state sector and, particularly, public ownership of both the SOCBs and SOEs, is associated with a lack of financial discipline in SOEs (Kornai, 1992; Li, 1992). This is despite considerable changes to the structure and form of the financial sector, and to the laws, policies and regulations by which it is supposed to be governed.

An important component of the analysis of this paper is the recognition of a higher concentration of short-term lending to the state-owned industrial sector by the NBS than is apparent for the financial system as a whole. This may be expected, at least to some degree, given the rapid increase in the importance of the lending of the state-owned policy banks (SOPBs) in this system. Such expectations would be tempered by recognition that the SOPBs

main role is in the provision of long-term funds. Quite surprisingly, the share of short-term NBS loans received by the industrial SOEs has actually increased following the commercialisation of the SOCBs and the conversion of a number of these into SCJSCBs, despite an increasingly rapid decline in the industrial SOEs' share of industrial output. Given that medium- and long-term (fixed asset) lending constitutes a higher proportion of total lending within the NBS than is the case for the financial system as a whole (Table 5), and that the SOE sector is in receipt of a disproportionately high share of new fixed asset loans (Table 7), it is also possible to conclude that the NBS's exposure to the state-owned sector is likely to be higher than that for the financial system as a whole.

The continued distortion of lending towards the state-owned sector suggests that the financial system must still be viewed as a tool through which China's central, and various other levels of, government may guide and assist in the development of China as a transition economy, rather than a mechanism for the most efficient allocation of scarce financial resources. However, continued declines in the SOEs' total share of loans suggest some movement towards a more commercial orientation in the lending practices of China's commercial banks may be occurring. This movement is supported by both policies and statements made by regulators that encourage behavioural changes in the lending patterns at the SOCBs, and is reflected in more recent discussion by the banking regulators of the need to ensure reforms visibly proceed in the future (eg, China Banking Regulatory Commission, 2004a and 2004b).

It must be concluded that recent reforms to the banking sector, particularly the introduction of the *Commercial Bank Law* of 1995, have at best had limited success in rapidly improving the efficiency of allocation of financial resources. Government interference in the national banking system and policy-based lending would still appear to be widely spread. Thus, non-state, particularly privately owned, firms are being discriminated against with respect to access to funds from the banking and financial sectors. Such crowding out of non-state firms requires them to rely relatively heavily on alternative, and more costly, forms of finance, including trade credit, to fund expansion of their working capital and fixed assets (Brandt and Li, 2003). A natural consequence of this additional cost is a crowding out of relatively profitable non-state investment activities, reducing the growth of the non-state sector and hence the Chinese economy.

REFERENCES

- Bonin, J.P. and Huang, Y. (2001), Dealing with the bad loans of the Chinese Banks *Journal of Asian Economics*, **12**, pp. 197-214.
- Brandt, L. and Li, H. (2003), Bank discrimination in transition economies: ideology, information, or incentives? *Journal of Comparative Economics*, **31**, pp. 387-413.
- Cheng, E. and Cheng, Y.-S. (1998), Banking Reform and the Separation of policy and Commercial Loans in China MOCT-MOST, **8**, pp. 5-21.

China Banking Regulatory Commission (2004a), Steadily Promote the Reforms of the SOCBs and Actively Further the Opening-up of China's Banking Sector, accessed <http://www.cbrc.gov.cn/english/>, May 31, 2004.

China Banking Regulatory Commission (2004b), Restructuring of state-owned commercial banks achieved staged success, yet reform of their corporate governance has a long way to go: Vice Chairman TANG Shuangning addresses the AFDP 2004 Annual Forum (November 28, 2004, Hainan), accessed <http://www.cbrc.gov.cn/english/>, December 10, 2006.

Holz, C. (2000), The Changing Role of Money in China and Its Implications *Comparative Economic Studies*, 42(3), pp. 77-100.

Huang, Y. and Yang, Y. (1998), China's Financial Fragility and Policy Responses *Asian-Pacific Economic Literature*, 13(2), pp. 1-13.

International Finance Corporation (2000), *China's Emerging Private Enterprises: Prospects for the New Century*.

Kornai, J. (1992), *The Socialist System: The Political Economy of Communism*, Oxford: Oxford University Press.

Laeven, L. (2003), Does Financial Liberalization Reduce Financing Constraints?, *Financial Management*, Spring 2003, pp. 5-34.

Laurenceson, J. and Chai, J. (2001), State Banks and Economic Development in China; *Journal of International Development*, 13, pp. 211 – 225.

Lardy, N.R. (1998), *China's Unfinished Economic Revolution*, Washington: Brookings Institution Press.

Lardy, N.R. (1999), *The Challenge of Bank Restructuring in China Strengthening the Banking System in China: Issues and Experience*, BIS Policy Papers No. 7, pg 17-39.

Lardy, N.R. (2001), China's Worsening Debts, *The Financial Times*, June 22, 2001.

Li, D. (1992), Public Ownership as a Sufficient Condition for the Soft Budget-Constraint, University of Michigan, *Center for Research on Economic and Social Theory*, Working Paper 93 – 07.

McIver, R. (2005), China's National Banking System: Commercialisation and Financial Stability, Third International Conference on Accounting and Finance in Transition: European and Asian Experiences and Public Policy Considerations, London, *University of Greenwich*, 13-16 July 2005.

McIver, R. (2006), A macroprudential analysis of China's banking sector stability, 2006 Australasian Business and Behavioural Sciences Association International Conference: Industry, Market, and Regions, Adelaide, *University of Adelaide, School of Commerce*, 29 September-1 October 2006.

National Bureau of Statistics China (2000), *China Statistical Yearbook 2000*, China Statistics Press.

National Bureau of Statistics China (2002), *China Statistical Yearbook 2002*, China Statistics Press, CD-ROM.

National Bureau of Statistics China (2006), *China Statistical Yearbook 2006*, China Statistics Press, <http://www.stats.gov.cn/english/statisticaldata/> accessed April 10 2007.

Naughton, B. (1998), China's Financial Reform: Achievements and Challenges, BRIE Working Paper No. 223.

OECD (2000), *China in the Global Economy: Reforming China's Enterprises*, OECD Economics: Emerging Economies in Transition.

Park, A. and Sehr, K. (2001), Tests of Financial Intermediation and Banking Reform in China, *Journal of Comparative Economics*, 29, pp. 608 – 644.

Shleifer, A. and Visny, R. (1994), Politicians and Firms, *Quarterly Journal of Economics*, 109(4), pp. 995-1025.

Wei, S.-J. and Wang, T. (1997), The Siamese-twins: Do state-owned banks favor state-owned enterprises in China? *China Economic Review*, 8(1), pp. 19-30.

EXCHANGE RATE ARRANGEMENTS IN CONGO: HISTORY AND EMPIRICAL EVIDENCE

ABSTRACT

This paper provides an insight into one of the major issues of the modern history of money in Congo, namely, the various episodes in monetary anchor and exchange rate arrangements since the late nineteenth century in the African territory known today as the Democratic Republic of the Congo. It starts by looking back as far as the fifteen century to comment on exchange rate arrangements set at that time, involving Portuguese currencies and currencies of the ancient Kingdom of Congo, such as *nzimbu*, *libongo*, and *mitako*. Following this introductory background, the paper analyses successively the key features of monetary regimes and exchange rate arrangements over three major periods of the Congo's history, namely, the Congo Free State (*Etat Indépendant du Congo*) era (1885-1908), the time when the Congo was a Belgian colony 1908-1960), and the post-colonial epoch of the Democratic Republic of the Congo, starting from 1960 to the early 2000s.

Key words: chronic high inflation, currency substitution, dollarisation, exchange rate, hyperinflation, intervention currency, legal tender, monetary anchor, state budget deficit.

1. EARLY EUROPEAN CURRENCIES IN CONGO PRIOR TO 1885

At the time when the whole of Black Africa was known as Ethiopia, the King of Portugal was also titled *Dominus Aethiopia*. Later on, when the same region of Black Africa was called Guinea, divided into Upper and Lower Guinea, the King of Portugal took the title of *Dominus Guineae*, on the basis of the rights he claimed from his possession of these territories. The lands of Congo and Angola were part of Lower Guinea. This is the reason why the inscription '*Dominus Guineae*' was engraved in the commemorative coin issued by King João II when the navigator Bartolomeu Diaz reached the Cape of Good Hope in 1488. The same period witnessed the spread of *cruzados*, *justos* and *espadinus* in gold coins, and later, of *testaos*, *indios* and *reales* in silver coins as well as *reales preto* in copper coins, all over the Western African coast (Banque du Congo Belge, 1960). However, the first significant minting of coins intended for circulation in Africa started in 1694 under the reign of Pedro II. These coins circulated along with the traditional means of exchange, such as the *nzimbu*, *lubongo*, *mitako*, salt and fabrics, which served as means of payment in the ancient Kingdom of Congo (Bontinck, 1987; Mambu, 2003).

The oldest source available on the exchange rate of the *nzimbu* is a letter dated 20 October 1575, written by García Simões, a Jesuit priest, and pub-

lished by the Portuguese Society of Lisbon (Dartevelle, 1953). In relation to the Portuguese currency at that time, namely the *reis*, the letter mentions an exchange rate of 10 *nzimbu* for 1 *reis*. At the same time it considers the measurement of greater amount a cumbersome exercise with reference to 1 '*lafuta*' estimated 2 '*tostoes*' or 200 *reis* with changes in the value through the Kingdom depending on eras (Dartevelle, 1953). To give more details about the units of measure, with their local names, used to count the *nzimbu*, and their rate of exchange with the Portuguese currency, the Portuguese geographer Cordeiro de Sousa (1883), refers to a manuscript of Da Silva Correia (1782) entitled *Historia de Angola*. A translation of the Portuguese geographer's comment, from which the figures summarised in Table 1 have been extracted, is reproduced as follows:

"In an interesting manuscript dated 1782, *History of Angola*, written by Elias Alexandre Da Silva Correia, we find the second division of the *n'zimbu* and its equivalence in Portuguese currency: 1 *bondo* (obviously the *cofo*) 10 *lifucos* (*lufucos* in our text) 100 *fundas*, 100,000 *n'zimbu*, 5,000 *reis*. One *funda*, 1,000 *n'zimbu*, 50 *reis*. The *funda* is divisible in parts equivalent to 25, 20, 12½, 10 and 5 *reis*, this concerning the best *n'zimbu*." (Dartevelle, 1953: 110).

TABLE 1. – *Nzimbu* unit of measure and rate of exchange (1782)

Unit	<i>Bondo</i>	<i>Lifucos</i>	<i>Funda</i>	<i>Nzimbu</i>	<i>Reis</i>	Gold Franc
Value	1	10	100	100,000	5,000	28.00
	–	1	10	10,000	500	2.80
	–	–	1	1,000	50	0.28

Source: based on Dartevelle (1953)

It emerges from this comment and from further investigation on the topic that the locals of the Kingdom of Congo used a decimal system to count the monetary shells, in which the *nzimbu* were grouped by tens, hundreds, thousands, etc. (Bontinck, 1987). One *bondo* was equivalent to one *cofo*, a name given to the small basket in which the *nzimbu* shells were placed on collection from the sea and Luanda Island beaches (Bontinck, 1987). The same source indicates that the normal weight of one *cofo* was approximately 30 kilos.

In his work devoted to the Kingdom of Congo, Cuvelier (1946) carried out a review of the variation of the exchange rate of the *nzimbu* from the start of the reign of Dom Alfonso (1516) to 1787. Table 2 contains a summary of the outcome of this review. Cuvelier (1946) mentions difficulties encountered in retracing the value of the *nzimbu* due, for instance, to the misleading effect on the estimates of the translation of Portuguese terms, such as '*dois*' (two) and '*dez*' (ten). The same remark applies to the conversion into gold francs, as it was already complicated for the Portuguese currency of that time for various reasons, including uncertainties regarding the exchange and alloy rate of gold and silver coins as well as counterfeiting of Portuguese metropolitan coins in the colonies.

TABLE 2. – Rate of Exchange *nzimbu*/Portuguese currency

Year	Value for one cofo of <i>nzimbu</i>		
	in cruzados	In reis	in gold franc
16th century			
1516	33	46,000	260
1553	50		
17th century			
1615	25	10,000	56
1646	5	2,000	11.2
1651	2.5	100	5.6
1692	2	800	0.3
18th century			
1787	2.5	1,000	5.6

Source: based on various sources cited by Cuvelier (1946)

On the other hand, people from the coastal regions of Angola and Congo used a device called *nkuta* or *khuta*, with variant *khoto* (also spelled *nkutu* or *khutu*), as a unit of account; this is a term in the Kikongo language to name a bundle of pieces of fabric, wood or metal as well as a pack of food or a bag. The origin of this term goes back again to the Kingdom of Congo, where a *khoto* (or *khutu*) as a bag, one of the insignia of power, was intended to contain the tributes paid to the King in *nzimbu* money. Due to mishearing on the part of the Portuguese *nkuta* or *khuta* was spelled *macuta* in Portuguese (Darteville, 1953). At the time of slave trade the value of a slave was determined in a given amount of *macuta*, and on this basis the value of goods to be exchanged was expressed in *macuta*. A small mat woven out of raffia fibre, known as *libongo* was also used as currency in the South-western region of the Kingdom of Congo. Bontinck (1987) claims that local fabrics were the origin of the term *makuta*, meaning a bunch of four *libongo*. One *libongo* was worth 12.5 *reis*, the Portuguese currency of the time. One *dikuta* was, therefore, worth 50 *reis*. However, as a result of the prestige attached to the coat of arms, the value of one *libongo* bearing the Portuguese coat of arms could amount to 50 *reis*.

By issuing copper coins to be sent to the West African coast, engraved with the Portuguese coat of arms and crown, and referred to as *macuta*, the Portuguese King's goal was to introduce, under a local name, an African unit of account defined on the basis of the same patterns as an European currency, with a fixed value equal to half the Portuguese *testao* or 50 *reis*, in replacement of a fluctuating traditional unit of account. The new unit was minted in copper coins subdivided into copper halves and quarters, while coins of 2, 4, 6, 8, 10 and 12 *macuta* were, later on, minted in silver (Mahieu, 1924).

At the Belgians' arrival in Congo in the late 19th century, the *macuta* was still in circulation. It ceased to be minted under the reign of King Louis I (1861-

1889). However, the locals maintained the term *macuta* – most commonly spelled *makuta* – to name copper and nickel fractional currencies issued by the Congo Free State and, later on, the Belgian colonial authority (Mahieu, 1924).

In the late 17th century, the Portuguese gave local names to the coins they issued to be used in their African territories in order to facilitate the progress of trade. The value of those coins was defined with reference to the Portuguese currency, namely the Portuguese *testao*. One century later, the same approach was repeated by the Belgians who made use of the *mitako*, a local medium of exchange, to manage the transitional period during which traditional currencies were in use alongside European-style currencies that were introduced with the colonial occupation.

Nonetheless, on the one hand, problems regarding navigability of the river Congo beyond Matadi prevented the Portuguese from penetrating further into the continent. On the other, the conditions for overland transport were too harsh to encourage the Portuguese travellers to undertake more exploration (Slade, 1962). As a result, Portuguese currencies did not spread over the country on a large scale. And yet, evidence of imported ancient metal currencies was found in various areas inland, confirming the presence of external traders and other travellers. In this respect, there was evidence of the earlier presence of Arabs and, later on, of Portuguese, who used to extract copper and gold from the Katanga mines, from the Middle Ages until the early 17th century (Wangermée, 1909).

European trade in silver currencies with Africa and the East was fairly profitable, as can be seen from the considerable importance Austria gave to it in the 18th century, especially with the introduction into Africa of the Thaler known as the “Marie Therese Year 1780” (Mahieu, 1924). Although the Thaler was no longer legal tender in Austria after 1854, it continued to be minted and exported to Africa until the late 19th century. A Decree of 27 July 1887 issued by the Governor-General of the Congo Free State set at three francs the rate at which the Marie Therese Thaler could be exchanged at the State Treasury (Revue Belge de Numismatique, 1896, cited by Mahieu, 1924).

2. KEY FEATURES OF MONETARY REGIME OF THE CONGO FREE STATE (1885 – 1908)

On 27 July 1887 the Belgian King Leopold II, Sovereign of the Congo Free State¹, issued a Decree (Bulletin Officiel de l’Etat Indépendant du Congo,

¹ In 1884, King Leopold II urged various European nations to recognise the *Association Internationale du Congo* (International Association of Congo) that he had created for the purpose of managing his African enterprise. In 1885, he proclaimed himself Sovereign of a new state he called *L’Etat Indépendant du Congo*, translated sometimes as the Independent State of Congo and sometimes as the Congo Free State, which he treated as his personal property (Slade, 1962).

1887) by which the Congo Free State adopted the international monetary system in force at that time, based on the Franc (F) as unit of account and in line with the Latin Monetary Union. The system comprised a gold coin of F20, silver coins of F1, 2 and 5 and of 50 centimes, as well as copper coins of 1, 2, 5 and 10 centimes. The F20 gold coin was to be struck at 900/1000 fineness, 6.45161 grams weight with respectively 2/1000 and 2/1000 allowance (Royal Decree of 27 July 1887).

The *Banque du Congo Belge* in its capacity as Congo's first issuing house ordered the National Bank of Belgium, acting on its behalf, to strike F20 gold coins for a total of F50,000. The order was not executed and the F20 gold coin has never been issued in Congo. No gold coin was in circulation in the Belgian monetary system either. As money of account the Franc was divided into 100 centimes and equivalent to 1/3100 of one kilo of gold at 9/10 fineness.

Currency circulation in the Congo Free State grew rapidly due to the expansion of local trade. While between July 1887 and January 1895 the total number of coins of different value that were issued was 268,000, it amounted to 342,000 in September of the same year, recording an increase of about 28 per cent in eight months. And yet a larger amount of coins was required to meet the fast-growing demand for money. The King issued a Decree of 19 December 1895 for the minting of F1 million in new silver coins. To carry out this final minting of the Congo Free State the King instructed the National Bank of Belgium to purchase 4,369.943 kilos of fine silver metal on the London market. The metal bought was delivered to Brussels in February 1896 at a price of F113.30 per kilo or F495,114.54 carriage paid (Mahieu, 1924).

The development of mining activities in Katanga attracted a growing number of workers from distant regions, who came to settle closer to their workplace. As a result, what had been the practice until then, of payment in kind, of a fast-growing number of workers, became increasingly cumbersome as the volume of imported and local goods used as wages exceeded the needs of the workers (*Banque du Congo Belge*, 1960). At the same time, the collection of taxes in kind, especially in ivory and rubber, favoured during the Congo Free State era, was subject to criticism because of widespread abuse. In addition, this method of payment proved to no longer suit the changed economic conditions of the State, which was compelled to meet various obligations and administrative expenditures that required payment in cash, and this necessitated collecting taxes in cash (Droogmans, 1906).

In view of these considerations, payment in cash gradually replaced the widespread method of payment of salaries in kind. As a consequence of this change in payment methods, the King issued a Decree of 27 August 1906 for the minting of a series of fractional currencies made of an alloy of 75 per cent copper and 25 per cent nickel. Coins of centimes 20, 10, and 5 were struck between 1906 and 1908.

King Leopold II issued a Decree of 7 February 1896 (*Bulletin Officiel de l'Etat Indépendant du Congo*, 1896) to create State paper currencies. Following this Decree, the Governor-General of the State promulgated an instruction of 10 April of the same year to state that the first issuing authorised would comprise banknotes of F10 and 100 for a maximum of F400,000 nominal value.

The instruction made it clear that the bearer paper currencies were to be accepted for any payment due to the Treasury along with the State metal currencies. Tax collectors were allowed to exchange paper currencies for metal State currencies, provided that the exchange would not result in any inconvenience for the Treasury. The State bills, the issue of which was not hedged, were payable at the General Treasury of the Congo Free State in Brussels (Louwers, 1934).

The issuing of State paper currencies met with no success among local people. The notes were subject to rapid deterioration caused by humidity and insects. As a result they could not be reused, unlike metal coins which, in addition, could be melted down again for some other use, such as spear ornaments, belt buckles or bracelets. Moreover, local people had no confidence in State bills bearing an unknown signature. In this respect, they had greater trust in foreign metal currencies, such as Portuguese coins in the southwest region known as Bas-Congo, and Marie Therese Thaler in the east. They also had more confidence in coins minted by some locally well-known figures, such as those bearing the image of Antoine Gushoff, manager of a Dutch trading company in the Bas-Congo region, and zinc coins struck by the religious community known as the *Pères Blancs* that had been established beside Lake Tanganyika (*Banque du Congo Belge*, 1960).

The Decree of 27 July 1887 (*Bulletin Officiel*, 1887) aimed at organising the monetary regime of the Congo Free State, stipulated, among other provisions, a temporary acceptance of foreign currencies as a medium of payment in the State. This provision was intended to overcome the shortage of currency in a new territory expected to witness fast-growing commercial activity and, at the same time, comply with one of the prescriptions of the Berlin Act, which proclaimed free trade and circulation for all nations in the Congo basin. As a consequence, a Decree of 3 January 1891 fixed, as shown in Table 4, the exchange rate of foreign currencies in circulation, namely the Pound Sterling (GBP), Mark, Rupee and Marie Therese Thaler (*Banque du Congo Belge*, 1960).

TABLE 4. – Foreign currencies exchange rate at 03/01/1891

Currency	Gold		Gold	Rupee	Marie
	Pound St.		Mark		Therese
Coin	Pound 1	Marks 20	Marks 10		Thaler 1
Exchange rate/Franc	24.20	24.40	12.20	1.30	3.00

Source: based on Banque du Congo Belge (1960)

Featured with a reduced volume of free trade, a barter-based system of exchange, tax payments in goods and labour, and the faculty of the State to pay local people in goods, the economic regime of the Congo free State did very little to promote the use of currencies. As a result, the money circulation was dramatically limited. Moreover, on the one hand, there was a formal separation between the Belgian and Congolese monetary systems. On the other, the monetary circulation in Congo comprised coins defined according to the same standards as the Belgian ones, and State bills. The latter could hardly be considered real paper money since it was not secured and nor was it legal tender in private transactions, and was not convertible externally.

Shortly after the annexation, a Royal Decree of 14 April 1909 decided on the withdrawal of silver coins of F1, 2 and 5, and of 50 centimes, struck by the Congo Free State, starting from 1 October 1909. Those coins could be exchanged at the Colonial Treasury in Brussels and at a number of designated Public Treasury branches in Congo until 1 July 1911. Another Decree of 30 June 1913 extended the deadline to 1 July 1914. Furthermore, the general regulation concerning public accountancy issued on 22 August 1922 provided that the Public Treasury could accept those currencies until much later (*Banque Centrale du Congo Belge et du Ruanda Urundi (BCCBRU)*, 1957).

3. KEY FEATURES OF COLONIAL MONETARY REGIME AND EXCHANGE RATE ARRANGEMENTS (1908 – 1960)

Article 1 of the *Charte Coloniale* declared a complete separation of legal entities, governing laws, and capital accounts between Belgium and its Colony. Nevertheless, Article 11 of the same *Charte Coloniale* defined the monetary statute of the Belgian Congo as follows: “(1) gold and silver currencies that are legal tender in Belgium play the same role in the Colony; (2) silver currencies minted by the Congo Free State are no longer legal tender or exchangeable at the Colonial Treasury; (3) any profit that may arise from the issuing of Belgian currencies needed by the Colony is attributable to the colonial budget; (4) the King is allowed to strike special fractional coins for the Colony, provided that those coins are not legal tender in Belgium” (*Moniteur Belge, Journal Officiel*, 1908: 5887-5889).

A fixed link was established between the Belgian franc (BF) and the Congolese franc (CF), which were exchanged at par. In practice, the exchange rate of the Congolese currency was dependent on the BF. This contradicted the principle of legal separation stated in Article 1 of the *Charte Coloniale*. The BF was particularly unstable at that time, and this instability affected the Congolese currency and finance (Louwers, 1925). Although silver coins struck by the Congo Free State ceased to circulate shortly after the annexation, they continued to be exchanged for new coins issued by the Colony until late 1924 (*BCCBRU*, 1957).

With regard to fractional coins that the King could strike in the Colony, the reason put forward for forbidding their circulation in the metropolitan territory was that Belgium was anxious to protect itself against 'a flood of fractional coins valued on a too conventional basis' (Halewyck, 1910: 13-14). On the same principle, Belgian fractional coins were not granted the quality of legal tender in Congo either. In both cases, should such coins have been exported from one country to the other, the cost of transport would have exceeded their low face value.

Article 7 of the *Charte Coloniale* stipulated that the King was responsible for setting regulations regarding the issue and circulation of notes representing legal currency. On the one hand, the State notes issued by the Congo Free State were gradually withdrawn after the annexation. On the other, due to a rapid increase in the Colony's business volume, it became urgent to issue new banknotes and coins. To deal with the most urgent matters first, notes issued by the National Bank of Belgium were put into circulation in the Colony during the first years of its existence, i.e. between 1909 and 1911. During this period, various banknotes issued by the National Bank of Belgium amounting to F2,175,000 were shipped to Congo (BCCBRU, 1957). The silver currencies issued by the Congo Free State were withdrawn, starting from October 1909, while a large amount of Latin Monetary Union silver coins flowed into the Colony. However, the use of the Belgian central bank's notes was subject to various legal and technical problems, due essentially to the much-debated management of the Belgian monetary system itself in relation to its Latin Monetary Union membership (Willis, 1901; de Lannoy, 1931; Dupriez, 1949; Wertz, 1952; Moens 1976). The use of Belgian central bank's notes was, therefore, rapidly abandoned and the metropolitan authorities decided to issue banknotes proper to the Colony (de Lannoy, 1928).

In July 1911, the Belgian Government concluded an agreement with the largest banking institution established in Congo, namely the *Banque du Congo Belge*, which was given exclusive issuing rights in the Colony for 25 years with the possibility of a review after a 15-year period (*Banque du Congo Belge*, 1960).

As a matter of fact, the Congolese monetary system was, from the outset, supposed by law to be independent from the Belgian system. This was to result in a clear distinction and separation between the BF and the CF. However, although it was clearly established by law that the Colony would have its own balance of payments and monetary reserves, and, if need be, its exchange control applicable to all countries including Belgium, in reality, things were different. From the earliest days of the colonial period Belgium always managed to maintain the same par rate of exchange between the two currencies.

Actually, as claimed earlier, because of the disparity in the balance of power between Belgium and its Colony, the CF could not escape the influence

of the Belgian monetary zone. In relation to this, Belgian parliamentary annals reveal that by the end of the First World War, the exchange rate of the CF against the British Pound sterling (GBP) exceeded that of the BF by more than 20 per cent. Nevertheless, on 30 June 1919, the Belgian Government, obviously put under pressure by industrial and commercial interests established in the Colony, decided on the alignment of the two currencies. The official reason for this was that maintaining disparity would have resulted in detrimental effects on new Belgian investments in Africa (*Annales Parlementaires*, 1920-1921).

Prior to the First World War the question of the exchange rate of the Congolese currency was not considered to be of significant concern or likely to affect the economic development of the Colony. Moreover, the exclusive issuing right granted by the agreement of July 1911 to the *Banque du Congo Belge* mentioned earlier helped to resolve the problem of means of payment (Gérard, 1925). The issue of the exchange rate arose since the barter-based mechanisms of transaction in use over the late nineteenth/early twentieth century proved to be inefficient in the new context of fast-growing economic activities in the Colony.

While the agreement of July 1911 regulated the issuance of bank notes among other matters, the strike and circulation of metallic currency were ruled by a series of Decrees issued over time starting from 1887. In this respect, before the First World War, the only currency mentioned in the legal and regulatory provisions was the Franc, which meant the Belgian Franc. The term Congolese Franc (CF) emerged as a consequence of the effective separation between Belgium and Congo imposed by the First World War (Gerard, 1925).

Following the outbreak of that war, the *Banque du Congo Belge* opened a branch in London on 8 September 1914 (Wertz, 1952). This branch served as the bank of the Colony's Treasury. As the latter was unable to obtain funds from the Belgian Ministry of Finance based in Le Havre, it borrowed funds in GBP in London. At the same time, Congo started to sell on the London market gold extracted from the Kilo mine in the northeast of the Colony. This was the starting point for a stream of commercial transactions in GBP to which the Congolese currency was pegged from then on (Wertz, 1952). As a result, the Colony's currency note became independent from the BF and was granted the quality of legal tender in Congo by late October 1914. From that time the CF gained a formal identity distinct from the BF regardless of the at par link established in 1909 (*Banque du Congo Belge*, 1960).

The London branch of the *Banque du Congo Belge* became the only financial intermediary between the Colony and the rest of the world. The bank succeeded in carrying out the management of its GBP cash flows smoothly. The amount needed to achieve a balance was withdrawn from credits in GBP granted to the Belgian Government, and from export proceeds received for Congolese supplies to Britain. This was done at the same exchange rate

as the one at which Belgian refugees in the United Kingdom were allowed to exchange BF against the GBP, namely, GBP1 for BF25.40. The *Banque du Congo Belge* bought GBP1 at CF25.40 CF and sold at CF25.45 (Wertz, 1952). This exchange rate remained stable until the end of the First World War. By mid-1918, when Belgium was still under the German occupation, the real exchange rate of the Belgian currency was estimated at GBP1 for BF50. This rate was 50 per cent below the exchange rate applicable to the CF in Holland, where the quotation was considered more in line with the real economic situation, in contrast with the arbitrary exchange rate applied in the United Kingdom in favour of Belgian refugees (Gérard, 1925).

Following the Armistice of November 1918 the United Kingdom broke the agreement between the Allies that maintained relatively stable the exchange rate of the GBP against the French Franc (FF) and the BF, namely around GBP1 for BF27. As a result, both the FF and the BF depreciated dramatically, driving the Belgian currency down to more than BF100 for GBP1. By late June 1919, while the Belgian currency was quoted at F31 for GBP1, the Congolese currency continued to be quoted at CF25.45 for GBP1 and the *Banque du Congo Belge* was still selling GBP1 for CF25.45 and buying at CF25.40 (BCCBRU, 1957).

However, shortly afterwards, regardless of the legal separation of the metropolitan and colonial currencies mentioned earlier, the Belgian metropolitan authorities decided to align the Congolese currency with the BF, which resulted in a devaluation of the CF by about 22 per cent (Gérard, 1925). As a consequence of this alignment, the legal separation between the two currencies was denied as the Congolese currency resumed its linkage with the metropolitan currency. The official reasons put forward by the Belgian Government to justify a par rate of exchange between the two currencies were vague: psychological grounds, identical denomination, close relationship between the two economic entities, easy capital flows (Gérard, 1925). As a matter of fact, the objective explanation stems once again from the nature of the unbalanced relations that existed between the Colony and the ruling metropolitan power. The instability of the Belgian currency was arbitrarily transferred to the Congolese money, which affected colonial export and fiscal revenues.

A Decree of 26 March 1957 established a control of banking institutions operating in the Colony by the *Banque Centrale du Congo Belge et du Ruanda Urundi* (BCCBRU)². Prior to that Decree, almost all the banks established in Congo had a Head office in Belgium. Therefore, they were *de facto* subject to the control of the Belgian Commission Bancaire, on the basis of an agreement concluded with the Minister of Colonies. By entrusting the BCCBRU

² A Decree of 30 July 1951 authorised the foundation, under public law, of an institution called *Banque Centrale du Congo Belge et du Ruanda-Urundi* (BCCBRU), intended to take over all the functions of the *Banque du Congo Belge* in its capacity as an issuing house, starting from 1 July 1952.

with the control of banks the aim was to more efficiently take into account local considerations in the organisation of this control (Preamble to the Decree of 30 July 1951).

The *BCCBRU* was entrusted with regulating and controlling foreign currency transfers. The new regulation was based on the principle that any transfer of goods and assets into and out of the territory of Congo and Ruanda-Urundi was subject to the Central Bank's authorisation and control. All foreign currencies received as export proceeds were to be totally or partially sold to the Central Bank at its request. Similarly, the use of such foreign currencies was subject to authorisation from the Central Bank. The effect of these provisions was that of a protective screen between the Congo and Ruanda-Urundi on the one side, and the rest of the world, theoretically including Belgium, on the other (*BCCBRU*, 1957).

Nevertheless, since Congo and Ruanda-Urundi were members of the Belgian monetary zone, there was, in practice, free transfer between Belgium and the two territories within the limits defined by the regulations of the *Union Economique Belgo-Luxembourgeoise (UEBL)* (Belgo-Luxemburg Economic Union).³ In this respect, in July 1952, the *IBLC*⁴, issued a general licence authorising the *BCCBRU*, *Banque du Congo Belge (BCB)*, *Banque Belge d'Afrique (BBA)*, and *Banque Commerciale du Congo (BCC)* to make transfers from BF into CF for payments relating to the following: (1) goods imported from the Colony, (2) services supplied by the Colony to the *UEBL*, (3) dividends, interest and other revenues to the *UEBL*, (4) travel expenditure and maintenance costs, (5) economic investments, and (6) loan repayments. Transfers relating to these payments were subject to authorisation by the *BCCBRU* as a prerequisite (*Bulletin Administratif et Commercial du Congo Belge*, 1952).

³ An agreement of 25 July 1921 created the *UEBL*, whose role was to form an economic union between Belgium and the Grand Duchy of Luxemburg, based on a customs union with a common customs tariff, common measures of quantitative restrictions, and a monetary association. Following the signing of the BENELUX and EEC Treaties, the customs union issue became of less interest. The main features of the monetary association were as follows: (1) a single central bank, namely the *Banque Nationale de Belgique*, (2) unified balance of payments, (3) a preferred currency, i.e. the Belgian Franc, and (4) common legislation with regard to exchange control. The latter was entrusted to the Institut Belgo-Luxembourgeois du Change, *IBLC*, created in 1944. BENELUX, an acronym derived from the names of Belgium, Netherlands and Luxemburg, started as a monetary and customs union agreement concluded in London in 1943 and 1944 between Belgium, the Netherlands and the Grand Duchy of Luxemburg. The agreement was revised in 1958 to become an economic union (Van Meerhaeghe, 1987).

⁴ The *IBLC* was created by a Law of 6 October 1944 with responsibility for controlling external payments of the *UEBL*, which was established in July of the same year. In this respect it was responsible for collecting and analysing data used for drawing up the balance of payments of the *UEBL* as a whole and a separate balance of payments for each State member. The *Banque Nationale de Belgique* was entrusted with the day-to-day management of the *IBLC*. The *IBLC* was in charge of implementing legal and regulatory provisions with regard to exchange control during the period when such provisions were in force, which they have not been since the abolition of the dual exchange rate on 5 March 1990 (*Banque Nationale de Belgique*, 2002).

In the end, despite the formally distinct identity stated in all legal provisions elaborated for the Colony by the Belgian metropolitan power, the CF remained in fact permanently linked to the Belgian currency. This link between the two currencies was justified by the alleged need to preserve interconnected Belgian and Congolese economic and financial interests. These were essentially represented by large industrial and financial groups founded, in most cases, in the time of the Congo Free State, and heavily involved in investments in the colonial mineral, agricultural and manufacturing, as well as financial services sectors. And yet, over the 1950s, opinion was growing among Belgians involved in the metropolitan and colonial administration, in favour of a real separation between the two currencies.

In the meanwhile, starting from its creation in 1887, the Congolese currency unit was defined on a par with the Belgian one. At times, as during the period of Congolese prosperity derived from the Colony's contribution to the First World War, the CF did meet the required conditions for its autonomy. However, it was systematically brought back under the influence of the BF in such a way that the monetary separation proclaimed by law between Belgium and its Colony can be considered no more than an historical illusion.

4. KEY FEATURES OF POST-COLONIAL MONETARY REGIME AND EXCHANGE RATE ARRANGEMENTS (1960 – 2005)

On 30 June 1960 the Belgian colony became an independent State under the name of Democratic Republic of the Congo⁵. Following independence,

⁵ Joseph Kasa-Vubu was appointed President and Patrice Emery Lumumba Prime Minister. The Belgian withdrawal was abrupt and ill-prepared. As early as July 1960 the *Force Publique* (the army and police) mutinied. The Government requested the United Nations to intervene. The country split into several secessionist regions. Lumumba, who was backed by the East European bloc, was deposed by President Kasa-Vubu, deported and murdered in Katanga in January 1961. His supporters took control of the north-eastern region of Stanleyville (now Orientale). Moïse Tshombe, who was backed by Belgian private interests, declared the mineral-rich southern region of Katanga to be independent. Albert Kalondji Ditunga declared the diamond-rich southern region of Kasai to be independent. In Léopoldville (now Kinshasa), the capital, President Kasa-Vubu, the army under General Mobutu, the Government and the Parliament disputed responsibilities with one another until the appointment of Cyrille Adoula as Prime Minister in August 1961.

In 1963 all the seceded regions were brought under central control and the country reunited. Tshombe became Prime Minister in 1964. A constitutional dispute between President Kasa-Vubu and the new Prime Minister was ended on 24 November 1965, when General Mobutu seized power in a bloodless coup. President Mobutu, who ruled the country for about 32 years without interruption until May 1997, changed the name of the State into the Republic of Zaïre in 1971. President Laurent J. Kabila toppled the Mobutu regime in May 1997 and re-named the country Democratic Republic of the Congo. In January 2001 he was assassinated and his son Joseph Kabila was appointed President. Kabila recently concluded a peace agreement with representatives of all military and political groups who had rebelled against his father's ruling regime. A new Constitution has been adopted by a transitional (non-elected) Parliament, and general elections are shortly to be organised, to appoint elected President and Parliament by mid-2006.

the BCCBRU was put into liquidation in September 1960. On 22 September 1960, a *Conseil Monétaire du Congo* was established as a transitional monetary authority, while a law creating a central bank named *Banque Nationale du Congo* was passed. The hard peg with a fixed exchange rate at 1 Congolese franc for 1 Belgian franc was abandoned in November 1961, time from which the US dollar became the monetary anchor. The Congo joined the International Monetary Fund on 28 September 1963.

4.1. MONETARY ADJUSTMENT OF 6 NOVEMBER 1961

The first devaluation made after independence was announced on 6 November 1961. Initially the measure included the possibility of flexible adjustments to the CF within fluctuation bands that were not to exceed 20 per cent. In the end the adjustment was turned into a formal devaluation of 30 per cent, considered as a minimum, essentially aimed at preserving the viability of agricultural export enterprises, as they were the only providers of foreign exchange revenue at that time. It was also intended to help lower the pressure on foreign exchange reserves by reducing the demand for imports (Herman, 1962). Moreover, the adjustment was also designed to be the first step of a far-reaching programme to reorganise the administration of external trade, and as preparation for an in-depth economic reform.

The outcome expected from the adjustment depended on the political crisis being resolved, as well as on a reduction in the State budget deficit, and wage and salary restraints. These conditions, however, were out of the control of the monetary authorities. As a result, the monetary adjustment served as no more than a temporary subsidy granted to export enterprises, as they cashed a larger amount in domestic currency for their export receipts in foreign currency sold to the banking system according to the existing foreign exchange regulation. And yet the advantage they gained was immediately offset by an increase in production costs.

The devaluation of 6 November 1961 accelerated the exhaustion of foreign exchange reserves. On the one hand, it prompted importers to use foreign currencies received from the Office des Licences (in charge of import licences) as quickly as possible. On the other, importers delayed the sale of their stock in order to benefit from further price increases. To prevent this speculative behaviour from developing the Central Bank (*Conseil Monétaire*) instructed banks to reject any demand for foreign currencies intended for prepayment of imports. The prospect of devaluation in stages caused anxiety, which made monetary activity more ebullient, and increased the velocity of money circulation, as it speeded up the purchase of goods to prevent liquid assets from being hit by a further devaluation (*Banque Nationale du Congo*, 1967).

4.2. MONETARY ADJUSTMENT OF 6 NOVEMBER 1963

In early 1963 the Katanga secession came to an end and the country was reunited. With the resumption of a contribution from province of Katanga, the Government was therefore able to count on a subsequently larger volume of potential resources. It consequently revised its budgetary policy with the aim of absorbing the public finance deficit, and correcting monetary disequilibrium. In the meantime there was a recovery in agricultural exports and in the domestic manufacturing industry, which resulted in a supply increase. At the same time, the increase in prices recorded since the monetary adjustment of 6 November 1961 contributed to a reduction in demand pressure. In view of these developments, the year 1963 seemed, eventually, to offer better opportunities than the first two years of independence for a thorough monetary reform accompanied by a revised public finance policy. On 6 November 1963 a new dual rate of exchange was defined, giving a buying rate against the USD of CF150, and a selling rate of CF180 (Mambu, 1964).

For a short time implementation of these provisions helped to reduce the size of the public finance deficit and stimulated export activities. However, soon afterwards rebellions resumed and spread all over the central and eastern region of the country, undermining the process of stabilisation that had started to be noticeable in 1964. The situation was dominated by internal conflict between political groups opposed to each other. At that time, lacking cohesion and discipline, the Government did not have at its disposal the means of efficiently implementing a sound financial and wage policy, which could have led to a long-lasting stabilisation. Furthermore, the existence of restrictions on external payments justified by the lack of foreign exchange reserves prevented the country from having access to IMF resources and at the same time caused a shortage of goods on the market (*Banque Nationale du Congo*, 1967). And yet far-reaching stabilisation programme would have required substantial external financial support (from the IMF and other lenders) in order to compensate for the exhaustion of foreign exchange reserves and provide a comfortable supply of goods and services.

4.3. MONETARY ADJUSTMENT OF 24 JUNE 1967

The political background of the 10-year period starting from late 1965 was marked by the firm leadership provided by President Mobutu who took power on 24 November 1965, ensuring political stability, and enabling the implementation of an important monetary and financial reform launched on 24 June 1967. The 24 June 1967 monetary adjustment was intended to resolve the ensuing economic problems: (1) monetary financing of public expenditure; (2) decline in production and revenue; (3) continuous increase in prices, and (4) disequilibrium in the balance of payments (*Banque Nationale du Congo*, 1967). At the same time, the Government created a new monetary

unit called the Zaire (symbol 'Z'), equivalent to CF1, 000 (*Banque Nationale du Congo*, 1968).

With regard to external payments, the programme provided two important measures. On the one hand, the dual exchange rate established with the monetary reform of 6 November 1963 was abolished and replaced by a single exchange rate, which fixed the value of Z1 at USD2, to which the new currency was pegged henceforth. The introduction of the new currency was accompanied by a devaluation of 67 per cent. At the same time, all quantitative and administrative restrictions on imports and exports were removed (*Banque Nationale du Congo*, 1967).

The first stage of the programme's implementation lasted 18 months, from late June 1967 to the end of 1968. By and large, the perceivable results had been achieved at the end of this first stage with regard to public finance, balance of payments equilibrium and stabilisation of prices. With regard to the balance of payments, the results achieved over this first 18-month period went beyond the expectations. Export proceeds exceeded forecasts, mostly thanks to good prices for mineral products as well as an increased volume of exported agricultural products (*Ministère de l'Economie Nationale et de l'Industrie*, 1969).

4.4. MONETARY ADJUSTMENTS OVER THE PERIOD 1976 – 1980

In order to cushion demand pressure due to excessive Government internal borrowing in 1975, the Central Bank issued, in the middle of the same year, an instruction that increased banks' compulsory reserve ratio from 40 to 45 per cent (*Banque du Zaïre*, 1975). The recourse to this monetary instrument failed to result in a significant decrease in the volume of credit, which instead continued to grow to cover increasing government deficit (*Banque du Zaïre*, 1977). The combined effect of worldwide economic crisis and adverse outcome of the zaïrianisation and radicalisation policies⁶ contributed to a further deterioration of the Congolese economic situation. To halt the continuing overall decline, another adjustment programme was prepared with technical and financial support from the IMF, and launched on 12 March

⁶ In November 1973 Mobutu Government initiated a policy known as "zaïrianisation" measures. Under these, the Government began expropriating foreign interests in various sectors of the economy, such as farms, small and medium-sized industries and trading enterprises. Zaïrianisation resulted in the further disorganisation of trade channels and a further decline in the agricultural sector's contribution to the economy in 1974. In November 1974, despite the lessons that should have been learned from the unsuccessful zaïrianisation, President Mobutu decided to intensify this process, by introducing a policy known as "radicalisation" (Young and Turner, 1985: 350). This policy consisted of nationalising all remaining private companies that had not been subjected to the November 1973 zaïrianisation. All businesses, including even those owned by nationals, with a turnover of more than Z 1 million were also subjected to the radicalisation process (Young and Turner, 1985).

1976. It was essentially aimed at gradually restoring financial equilibrium in order to restore long-lasting growth prospects for the country (Bornemann *et al.*, 1979).

The domestic dimension of the programme consisted of urgent measures relating to the State budget, lending, wages and prices. With regard to the budget, the programme fixed ceilings for the following: (1) public expenditure, (2) money creation for the purpose of financing the budget deficit, and (3) expenditure in foreign currencies. A ceiling was also placed on the volume of credit to enterprises and households in order to keep the demand pressure under control (*Banque du Zaïre*, 1976).

Furthermore, the monetary unit, which had been pegged to the US dollar since the creation of the Zaïre at the rate of $Z1 = USD2$, was devalued by about 40 per cent and the peg was changed from the USD to the IMF Special Drawing Right (SDR). The new parity, therefore, became $Z1 = SDR1$ or $USD1.20$. The peg to the SDR was supposed to help reduce exchange rate fluctuations (Bornemann *et al.*, 1979). This devaluation was intended to improve export businesses' cash position and reduce public and private consumption in order to establish a balance between demand and supply. The measure was also aimed at increasing State budgetary resources and at helping to offset the operating deficit of Gécamines. The programme provided for a gradual reduction in the annual external debt servicing cost. The objective of this provision was to restore external credibility. In the meanwhile multilateral negotiations regarding medium-term and long-term external debt were planned for the purpose of reducing the debt servicing burden starting from 1976.

Implementation of the 1976 programme failed to meet expectations, and the economy showed no sign of recovery, while the State budget deficit financed by money printing amounted to Z300 million, or five times the budgeted deficit for the same year (Vanderlinden *et al.*, 1980). Following the failure of the 1976 monetary adjustment programme, the Government drew up another monetary reform programme for 1977, which included the following major provisions: (1) reduction of borrowing by the State Treasury from Z300 million to Z160 million; (2) additional export dues on petrol and coffee; (3) quantitative control on credit by means of the imposition of ceilings; (4) freezing of wages and salaries at their 1976 level; (5) tighter control over revenue from exports; and (6) progressive settlement of outstanding external payments and redefinition of external debt policy aimed at enabling the State to seek funds on the capital markets for productive and priority investment projects. This programme was developed with the support of the IMF and the benefit of a stand-by credit agreement. It was also intended to test the capacity of the State to put an end to the squandering of resources and stick to sound financial management (Bornemann *et al.*, 1979).

Like all the previous programmes, this new one also failed to meet expectations. Despite a sharper increase in revenue than in expenditure in 1977,

the global deficit of the State budget amounted to Z273.5 million for the year, compared with Z160 million budgeted. In 1978 the deficit amounted to Z566.2 million. This development was the result of the mining sector's reduced contribution to total budgetary revenue, down to 20 per cent and 15 per cent in 1977 and 1978 respectively, compared with 50 per cent in 1974. A continuing depressed level of export prices for copper and the consequent weakening position of Gécamines, which had meant the company receiving sizeable tax relief since 1975, explained this sharp fall (Bornemann *et al.*, 1979).

At the same time, the exhaustion of foreign exchange reserves reduced import capacity while the volume of short- and medium-term external debt servicing arrears was growing dramatically. At the end of 1978 the external debt was estimated at about USD3 billion, of which one-third represented accumulated arrears. Exchange rate policy and exchange control measures taken during the period 1977 – 78 were generally designed to address the problem of growing foreign exchange scarcity. Despite continual tightening-up of the payment regime, arrears continued to accumulate year after year. This situation was a consequence of the borrowing frenzy the Government had initiated in the early 1970s, which is explained as follows. As one of the outcomes of the monetary adjustment of June 1967, the increase in public fiscal resources, combined with favourable export prices between 1967 and 1970, resulted in a temporary restoration of equilibrium in the State's accounts. This relatively comfortable position contributed to an improvement in the country's credit rating. It enabled the Government to borrow on the international financial markets in order to compensate for the deterioration in the terms of trade observed since the early 1970s (Leslie, 1987). Most of the loans negotiated during that period were contracted on unfavourable terms and without due consideration to the return in terms of output and foreign exchange⁷. As a result, very soon the country started failing to meet its commitments and to accumulate a heavy burden of external debt arrears (Vanderlinden *et al.*, 1980).

Following the devaluation of about 40 per cent and the change of peg from the USD to the SDR in March 1976, the exchange rate of the Z against the SDR remained unchanged at Z1 = SDR1 until the end of October 1978 (Bornemann *et al.*, 1979). During this period, due to rapid inflation, Zaïre's export competitiveness was adversely affected. So was the profitability of do-

⁷ A few examples are: (1) the very expensive project to transport electrical power from the Inga dam to the mining region of Shaba; (2) a USD200 million steel mill at Maluku, near Kinshasa; (3) the construction of *Voix du Zaïre* (a broadcasting centre), the country's radio and television station at an estimated cost of USD100 million; and (4) the construction of an International Trade Centre in Kinshasa. Between 1972 and 1974, Citibank was the lead manager in arranging loans to Zaïre for a total of about USD164 million. By 1974, US commercial banks had granted USD200 million in US government-guaranteed loans and USD123 million in unguaranteed loans to Congo (Leslie, 1987).

mestic production compared with rival products imported through official channels. In an effort to increase exports of diamonds from small-scale producers through the official market, starting from April 1977, the *Banque du Zaïre* began to apply a preferential exchange rate to the export proceeds from these diamonds. In this respect, the exchange rate was revised from Z1.825 to Z2.20 for USD1 in August 1977, and Z2.92 for USD1 in January 1978.

In view of serious dislocations in the domestic economy resulting from the widening disparity between the official and unofficial market rates, the Government initiated a new policy of successive devaluations of the national currency. Between November 1978 and January 1979 alone the Z was devaluated by a cumulative 50 per cent, as follows: from Z1 = SDR0.9 on 1 November 1978 to Z1 = SDR0.81 on 7 November 1978, to Z1 = SDR0.7614 on 27 November 1978, and to Z1 = SDR0.5 on 2 January 1979. (Mambu, 2003).

4.5. MONETARY ADJUSTMENTS OVER THE 1980S

In view of the failure of the 1979-80 programme, the Government prepared another adjustment plan for the period 1981-83. A contribution of SDR912 million was expected from the IMF in support of this three-year programme, which set the following goals for 1981: (1) 2 per cent GDP growth; (2) 45 per cent annual inflation rate; (3) 36 per cent money supply growth (compared with 66.1 per cent in 1980); (4) 38 per cent banking system domestic assets growth (the same as in 1980); (5) Z850 million ceiling on State Treasury borrowings, and (6) Z475 million ceiling on total lending to businesses and households. For the three-year period the Government drew up a Z6.9 billion public investment programme (*Banque du Zaïre*, 1982).

During the first half of 1981 a number of measures were introduced, including the following. In February 1981, the Central Bank scaled up the allocation of export proceeds that commercial banks were allowed to make available to their customers to cover the cost of priority imports, such as raw materials, intermediate consumer goods, industrial equipment spare parts, commercial vehicles, and capital goods. Furthermore, the import of goods financed by foreign exchange resources acquired outside the banking system was liberalised, allowing a wider range of products, provided that an import declaration was presented to the banking system. This measure was designed to encourage holders of accounts kept abroad in foreign currencies to repatriate their liquid assets in the form of imported goods (*Banque du Zaïre*, 1981). In April 1981 the Central Bank increased credit interest rates. Moreover, starting from 1 June of the same year, most prices were liberalised and price control measures removed. Lastly, on 19 June the Zaïre was devalued by 40 per cent against the SDR (*Département de l'Economie Nationale*, 1981).

Right from the start of 1981, the Government failed to meet the requirements for a successful completion of the three-year programme, which was, there-

fore, abandoned. Its failure was due to both external and internal factors. On the one hand, the continuing stagnation of Western countries' economies led to falling demand for the major commodities exported by the Congo. As a result of low international prices for copper and cobalt, total export earnings fell from Z1,954 million in 1980 to Z1,475 million in 1981 (*Banque du Zaïre*, 1981). This fall in foreign exchange proceeds undermined the adjustment programme, which resulted in a cancellation of the financial support from the IMF. As a consequence, the volume of external payments arrears increased (*OGEDep*, 1981). The withdrawal of the IMF's financial support was followed by an increasing reluctance on the part of other institutional lenders, international and national, to consider loan requests from Congo. This attitude resulted in a dramatic reduction of external resources available to Congo, which restricted the country's ability to import goods and subsequently worsened the overall supply. (Leslie, 1987).

The economic and financial situation of Congo worsened in 1982. The year was marked by a further decline in production in all sectors of the economy, including export agriculture, domestic manufacturing, and the mining industry. To a large extent this regression was due to a lack of foreign exchange resources. Export earnings in 1982 increased by only 3 per cent over the 1981 figure. This poor performance resulted from a sharp decrease in the market prices for major exports, such as copper (20 per cent fall) and cobalt (50 per cent price fall), combined with an overall deterioration of the terms of trade (*Institut National des Statistiques*, 1982). This situation meant there was an overall balance of payments deficit of SDR600 million for the year, of which less than a half was covered. Furthermore, due to the suspension of disbursement of the IMF facilities agreed in June 1981 and the decline in grants and loans from other international and bilateral partners, the net balance of external transfers was nil (*Banque du Zaïre*, 1981).

At the end of 1982 accumulated external arrears amounted to USD700 million, not including commercial and invisible transactions. Government spending had grown by 46 per cent, faster than public revenue, which increased by 31 per cent. This was a result of the overall decline in economic activity, stagnation of external trade and a reduction of Gécamines' capacity as the major contributor to public revenue. As a consequence of this development the State budget deficit amounted to Z2.8 billion or 8.9 per cent of GDP, compared with 5.9 per cent in 1981. Given repayments of external debt that had been made, the Treasury's overall deficit amounted to Z3.3 billion for the year 1982, compared with Z1.7 billion for 1981 (*Banque du Zaïre*, 1982).

By late 1982 the Government initiated a number of measures aimed at providing tighter control on public expenditure and more efficient collection of fiscal revenue. The main objective was to curb the expansion of domestic demand and improve the allocation of public resources. In addition to these budgetary and monetary policies other measures, designed to remove the re-

maining price controls and to liberalise small-scale mining and trading in diamonds and gold, known as *diamant artisanal*, by designating a preferential exchange rate to be applied to this trading activity, were also taken in early 1983 (Beaugrand, 1997)⁸. With this liberalisation policy the Government aimed to combat smuggling in precious minerals and to return to official economic channels the largest portion possible of the foreign exchange generated in the grey economy by small producers. Thanks to severe spending cuts the management of public finance over the first half of 1983, marked by reduced recourse to financing by the Central Bank, resulted in a balanced budget. This formal equilibrium was reflected in a fall in the growth rate of money supply, combined with a slowdown in the expansion of credit to enterprises and households (*Banque du Zaïre*, 1983).

However, by mid-1983, the overall economic situation of the country was still marked by a rapid increase in prices, an overvalued exchange rate, a large balance of payments deficit, and a growing volume of external payments arrears. In view of this development, the Government decided to implement a more far-reaching economic and financial adjustment programme, with financial support from the IMF. The essential objective of this new programme was to reduce the current balance of payments deficit. In this respect, on 9 September 1983 the Government defined a new exchange regime in three parts, namely (1) modification of the exchange rate, (2) introduction of a floating exchange regime and (3) liberalisation of the exchange regulations (Leslie, 1987, Mambu, 2003).

These measures were put into effect on 12 September 1983. The exchange rate was modified from $Z1 = \text{SDR}0.1575$ to $Z1 = \text{SDR}0.03542$, which implied a devaluation of 77.5 per cent compared with the exchange rate in force on 22 June 1981 (Beaugrand, 1997). At the same time a floating exchange regime was adopted on two levels. An official foreign exchange market was established for conducting a limited list of transactions with foreign currencies provided by the Central Bank. An unofficial free market, reserved for transactions conducted by commercial banks using their available foreign exchange, was also set up. A foreign exchange inter-bank market was established with the task of fixing a free exchange rate of the Z against the USD on a weekly basis. The Central Bank could intervene in this market in order to strike a balance between demand and supply if necessary (Leslie, 1987, Mambu, 2003).

At the launching of the monetary reform there was a gap of 10 per cent between the official and the unofficial exchange rate. This gap was gradually reduced and completely closed on 24 February 1984, the date from which the exchange rate was freely determined by the market. This change went to

⁸ Prior to this liberalisation policy, the exploitation of diamonds and gold was a monopoly of large mining companies, and thus forbidden to others. Nevertheless an increasing number of small producers were involved in this kind of until then clandestine activity.

gether with a wide liberalisation of exchange and external trade regulations. In this respect a number of measures were put into effect, including the following: (1) abolition of the compulsory transfer of 30 per cent of export proceeds to the Central Bank, (2) elimination of residents' accounts in foreign currencies, (3) simplification of import procedures and abolition of the related requirement for prior approval from the Central Bank, and (4) relaxation and subsequent abolition, from 1 March 1984, of the provisions that assigned export proceeds for specific purposes (*Banque du Zaïre*, 1984). In addition to the revision of the exchange and external trade regime, other measures were taken regarding the State budget, credit, prices and salaries, aimed at limiting the expansion of domestic demand (Beaugrand, 1997, Mambu, 2003).

Before the monetary reform was launched in September 1983, budget expenditure, held under tight control, remained below the level reached at the end of the same period in 1982. Starting from the fourth quarter of 1983, State budget disbursements increased significantly as a mechanical effect of the 77.5 per cent devaluation of September 1983. Such was the case, for instance, with regard to the exchange value of external debt servicing costs expressed in Zaïre. Furthermore, the devaluation also resulted in an increase in public revenue, as the exchange rate adjustment significantly improved the contributing capacity of Gécamines and widened the tax base related to external trade (Sumata, 2001).

Because of the expanding foreign debt burden, the volume of available foreign exchange resources proved to be insufficient to cover the balance of payments deficit. In view of this situation the Government resorted to negotiating further debt rescheduling with the Paris Club, which resulted in a rescheduling agreement concluded on 20 December 1983. At the end of 1983 Congo's external debt amounted to USD4.6 billion, of which 63 per cent was owed to lender members of the Paris Club, about 10 per cent to private banks (Club of London), 13 per cent to international institutions, and the balance to other public and private creditors (Kikassa, 1989). The total amount of debt rescheduled under the Paris Club agreement of 20 December 1983 was USD1.4 billion. As a result of the agreement, the annual debt servicing cost was lowered to USD651 million, of which USD221 million was effectively paid before the end of the year (*OGEDep*, 1984). This rescheduling policy continued over the whole period covered by this review, and explains the impact of recapitalisation and consolidation of unpaid arrears on the exponential increase of Congo's external debt.

The devaluation of mid-September 1983 resulted in a dramatic increase in the cost of imported goods and services, such as fuel, the price of which rose fivefold because of the price liberalisation policy. As this increase was passed on to all other sectors of the economy, the retail price index grew by 28 per cent in September alone, while the average monthly inflation rate prior to September was at 4 per cent. In the end the average inflation rate for 1983 amounted to 76 per cent, compared with 37 per cent in 1982. Howev-

er, as a result of a relatively comfortable volume of foreign exchange reserves at the banks' disposal, and rather low demand, no significant demand pressure was noticed. As a result, the external exchange rate remained stable until early 1984. Set at USD1= Z29.92 on 9 September 1983, the exchange rate in the free market was fixed at USD1= Z30.40 at the first inter-bank market fixing session of 21 October, and Z30.89 on 29 December 1983. The 10 per cent fluctuation margin established between the official exchange rate and the rate of exchange in the free market was gradually narrowed until it was cancelled out by February 1984, when the single exchange rate stood at USD1 = Z33 (*Banque du Zaïre*, 1983).

4.6. MONETARY ADJUSTMENTS SINCE THE 1990S

From 1990 onwards, a period characterised by hyperinflation over the first half of the 1990s, prices were increasingly set in foreign currency (US dollars or Belgian Francs), although small-scale transactions generally continued to be fixed in Zaïre⁹. As wages in the formal economy were settled in Zaïre, wage earners no longer made use of the sharply falling domestic currency as store of value. Soon after they cashed their wages these were exchanged for foreign currency. Offices acting as foreign exchange bureau and street money-changers proliferated, forming an active foreign exchange market known as a parallel market that was handling transactions on a continuous basis, from a few dollars to several thousands dollars.

Overall, due to a sharp decline in export receipts and exhaustion of foreign exchange reserves held by the central bank and commercial banks, which formed the official inter-bank market, the volume of imports and other external payments financed by these resources decreased dramatically. This resulted in an increasing volume of imports and other external payments fi-

⁹ Hyperinflation can be defined as starting from the moment when the monthly rate of increase in prices exceeds 50 per cent and ends in the month before the increase in prices falls and remains below this rate for at least one year (Cagan, 1956). Some other scholars, such as Salama and Vallier (1990), define hyperinflation with reference to three stages. Firstly, the increase in prices becomes exponential, out of control and unpredictable. Secondly, relative prices lose their consistency, which helps to speed up the increase in prices. Lastly, it becomes increasingly difficult for the national currency to exert its essential monetary functions as a store of value, medium of exchange and unit of account. The national currency is then overtaken by some other foreign currency, generally the US dollar.

In the case of the Congo, from 56 per cent in 1989, the annual increase in consumer prices reached 256 per cent in 1990, 2,500 – 4,500 per cent between 1991 and 1993, and 10,000 per cent in 1994, before falling back to 370 per cent in 1995 and 657 per cent in 1996, as a result of a relative improvement in the public governance. In his study entitled “*A modern history of monetary and financial systems of Congo, 1885 – 1995*”, the author refers to an alternative definition considered more suitable for Congo's case (Beaugrand, 1997). Namely, on the basis of a threshold average monthly inflation rate of 20 per cent over three months, the corresponding quarterly inflation rate amounts to 73 per cent, and nearly 8,000 per cent on an annual basis. With reference to this definition, Congo's hyperinflation began in November 1990 (Mambu, 2003).

nanced by resources in foreign currencies acquired on the parallel market, that is to say, at a higher cost than the official exchange rate.

The parallel market was held and operated on an informal basis by various intermediaries from the street money-changers to large commercial companies acting through several unofficial *bureaux de change*. Following the adoption of floating exchange rate regime in September 1983, and the resorption of the gap between the official and the parallel rate of exchange, the most important of these companies formed a kind of board that liaised with the central bank and the commercial banks grouped in the *Association Zaïroise de Banques* in fixing the exchange rate applicable on a weekly basis for all transactions in foreign currencies. The system remained under freely falling/managed float regime until October 1993.

On 22 October 1993, the Central Bank implemented a so-called monetary reform, which consisted of the following major steps: (1) issuance of new banknotes called Nouveau (New) Zaïre (NZ); (2) freezing of bank money; (3) exchange of banknotes in circulation on the basis of NZ1 for Z3 million, and devaluation at the rate of Z9 million or NZ3 USD1 (Mabi, 1997). The issuance of new banknotes stripped of six zeros was intended to facilitate the handling of money as well as simplifying recording and accounting processes. The freezing of bank money was aimed at reducing the excessive volume of the money supply, in order to cool down the high pressure of demand and to lower the high inflation rate. The devaluation was justified by the fact that the national currency was overvalued in relation to foreign currencies. The opposition boycotted the NZ notes as it had the Z5 million notes. So did the soldiers when the Government attempted to pay them with the new notes. The dissatisfaction of unpaid soldiers gave rise to a wave of rioting and looting (Beaugrand, 1997, Mambu, 2003).

The set of measures of 22 October 1993 proved to be the worst monetary reform ever attempted in Congo. It contributed to further undermine the already dislocated system of monetary intermediation (Mabi, 1997). The Central Bank's attempt to slow down the depreciation of the NZ on the inter-bank market failed. As early as the end of 1993, one USD was worth NZ102 on the parallel market, recording a differential of 191 per cent with the inter-bank market. In November and December 1993 the monthly inflation rate reached about 250 per cent. Although the rate slowed back to 191 per cent in January 1994, over the three-month period to the end of that month there was a cumulative price increase equivalent to more than 3,300 per cent on a yearly basis (Beaugrand, 1997).

The freely falling/managed float regime went on until late 1997/early 1998. In June 1998, another monetary reform was launched by the government of the new regime conducted by President Laurent Kabila, introducing a new currency called Congolese Franc (CF) at the rate of CF1 for NZ100,000, and providing one year period for the exchange of NZ against the new currency.

The initial mid-rate of exchange was CF1.405 for US\$1. Prior to this reform, the country was divided into four currency zones while the NZ exchange rate collapsed rapidly, subjected to a resurgent four-digit hyperinflation fuelled by a frantic printing of bank notes.

As a result of the monetary reform the economy showed signs of an ephemeral semblance of recovery. The sharp fall in the rate of inflation from three-digit figure to around 20 per cent was observed in a context marked by the outburst of several seats of armed conflict in August 1998 and coercive administrative measures aimed at prohibiting currency substitution. By a decree of 8 January 1999, all transactions in foreign currencies were banned with the aim of obliging foreign exchange out of the grey economy into the banking network. The scarcity of foreign exchange worsened, reducing subsequently the volume of import of vital commodities. Importers resorted to purchasing foreign currencies in the parallel market at a more onerous rate. This resulted in rocketing prices of imported as well as domestic goods. Government expenditure increased as a consequence of the general increase in prices, and as a result of the costs triggered by the war on several fronts. The prospect of further liberalisation of exchange control vanished with the entry of the country into the civil war.

From an annual rate of 107 per cent in 1998, consumer prices index rose to 270 per cent in 1999, and 511 per cent in 2000, while the exchange rate deteriorated by 91 per cent in the inter-bank market (81.9 per cent in the parallel market). In January 2000 the government devaluated the currency from CF4.5 for US\$1 and introduced multiple exchange rates with an official rate at FC9 for US\$1, currency to which the CF was pegged. For US\$1 the official rate was FC23.50 in June 2000, and FC 50 in October of the same year. Over the first half of the 2000s, the end of period exchange rate expressed in CF for US\$1 evolved as follows: Cf312 in 2001, Cf382 in 2002, CF373 in 2003, CF444 in 2004 and CF430 in 2005, year during which it culminated above FC500 for US\$1.

Empirical estimates of dollarisation recorded a rate as high as 90 per cent over the mid-1990s, a rate which hovered at 75-80 per cent during 1998-2000, falling to around 75 per cent in 2001, as a result of the sharp disinflation observed during the same year (Mambu, 2005). The resurgence of high inflation during the second half of 2004 favoured an increasing currency substitution, which took back the rate of dollarisation to the heights estimated over the mid-1990s, namely around 90 per cent.

Synoptic table of exchange rate arrangements in Congo 1887–2005

Dates	Exchange rates	Legal basis/source	Comments
27/07/1887 – 1896	fixed; CF1 = BF1 = 0.29032258g gold	Royal decree of 27/07/1887 by King Leopold as Sovereign of the Congo Free State	franc: adopted as same name for the two currencies, Belgian and Congolese; gold standard
1896 – Dec 1914	pegged; CF1 = BF1 = 0.29032258g gold	Royal decree of 07/02/1896	Colonial charter of 18/10/1908; Congo free State becomes a colony as Belgian Congo; coins of Latin Monetary Union: legal tender in Congo
Dec 1914 – June 1919	pegged as part of a currency union CF25.45 = UK£1	Belgium ordonnance-loi of 19/10/1914	CF pegged to UK£; Ruanda & Urundi (now Rwanda & Burundi) become Belgian protectorates (1916 & 1917) following 1st World War 1917: de facto currency union Belgium–Congo–Ruanda–Urundi (Ruanda joined in 1916, Urundi in 1917)
June 1919 – 24/10/1926	pegged as part of a currency union; CF1 = BF1	Belgium, Ministry of Colonies decision of June 1919	Following end of 1st World War: tight link BF-CF re-established at par despite 20% premium in favour of CF (effective market rate was previously CF1 = BF1.2)
25/10/1926 – 26/07/1935	pegged as part of a currency union CF1 = BF1 = 0.0418422g gold in practice	Belgium, decree of 14/11/19276	Return to gold standard; decree of 1927 gives CF its own gold definition; prior to this gold definition was that of BF solely
27/07/1935 – 13/05/1940	pegged; CF1 = BF1 = 0.0301264g gold	Belgium, decree of 27/07/1935	Devalued against gold along with BF
14/05/1940 – 06/06/1940	pegged as part of a currency union CF120 = UK£1 through BF or 0.68 CF = French franc (FF)1	Anglo-Belgian-French monetary agreement of 14/05/1940 Ordonnance Législative No 61/Fin-Dou., 14/05/1940 Ordonnance Législative No 89/Fin-Dou., 20/05/1940	CF not explicitly mentioned in monetary agreement but directly involved through BF zone
07/06/1940 – 20/01/1941	pegged as part of a currency union CF176.625 = UK£1 through BF or CF1 = FF1	Belgium, ordonnance législative of 30/05/1940 & of 21/06/1940	CF devalued following devaluation of BF to maintain parity; forced tender of notes of BCB; export of its notes forbidden

Dates	Exchange rates	Legal basis/source	Comments
21/01/1941 – 04/10/1944	pegged as part of a currency union CF176.625 = UK1	Anglo-Belgian agreement of 21/01/1941; Belgium, ordonnance législative No 107/Fin.- Dou., 10/3/1941	CF directly pegged to UK£; notes of Banque du Congo Belge (BCB) made forced legal tender (Belgium, ordonnance législa- tive N° 105/Fin.-Dou, 10/03/1941
05/10/1944 – 30/06/1952	pegged as part of a currency union CF1 = BFI	Anglo-Belgian agreement of 5/10/1944	Liberation of Belgium by Allied during 2nd World War CF returns to BF as monetary anchor 18/12/1946 Belgium registers parity with IMF CF1 = 0.0202765g gold 21.09.1949 parity changes to CF1 = 0.0177734g gold
01/07/1952 – 24/10/1956	pegged as part of a currency union CF(Ruanda-Urun- di)1 = CF(R-U)1 ' = 0.0177734g gold = BFI	Belgium, decree of 30/07/1951	Banque du Congo Belge, (BCB)'s right to issue notes ceases; Banque du Congo Belge et du Ruanda-Urundi (BCCBRU) is granted right to issue notes & coins for the three territories (Congo, Ruanda & Urundi)
25/10/1956 – 21/09/1960	pegged as part of a currency union; CF(R-U)1 = BFI = 0.0177734g gold	Belgium, decree of 25/10/1956	CF defined in terms of gold
22/09/1960 – 5/11/1961	pegged; CF1 = 0.0177734g gold = BFI	Republic of the Congo Presidential ordonnance of 22/09/1960	Following independence Congo (from then on Republic of the Congo) leaves currency union with Ruanda& Urundi; parallel market premium from 1960: above 50%
06/11/1961 – 08/11/1963	pegged; dual rate; official rate: CF50 = US\$1	Republic of the Congo Presidential ordonnance of 06/11/1961	Congolese dual rate replaced "indirect" dual rate through BF that had dual rate. US dollar becomes monetary anchor for CF 20% of foreign exchanges: allowed to be sold on free market where intital rate was CF64 = US\$1 When Katanga reunited with the rest of the country, Katanga franc1:converted for CF1 (Republic of the Congo Presidential ordonnance of 09/01/1963)
09/11/1963 – 23/06/1967	pegged; official dual rate CF150 and CF180 = US\$1	Republic of the Congo Presidential Ordonnance-loi of 09/11/1963	Conseil Monétaire du Congo: acting as Central Bank CF devalued after a civil war involving Katanga province

Dates	Exchange rates	Legal basis/source	Comments
24/06/1967 – 18/06/1968	pegged; Z1 = US\$2 = 1.777432g gold	Presidential ordonnance of 23/06/1967	Introduction of a new currency, zaire1 = CFI000 unified exchange rate (Zaire: Portuguese pronunciation of the local term nzadi for (any) ³ large river ³ , attached to Congo, name of the river know as river Congo or nzadi Congo (spelled Kongo in local language)
19/06/1968 – 15/11/1970	pegged; Z1 = BF100 = US\$2 , = 1.777432g gold	Banque Nationale du Congo Circular of 19/06/1968	BF back as intervention currency/monetary anchor 02/09/1970; registration of gold parity with IMF
16/11/1970 – 23/08/1971	pegged; Z1 = BF100 = US\$2 , = 1.777432g gold	Banque Nationale du Congo Circular of 16/11/1970	US\$ back as intervention currency while BF remains monetary anchor
24/08/1971 – 26/08/1971	pegged; Z1 = US\$2 = 1.777432g , = 1.777432g gold(nominally)	Banque Nationale du Congo Circular of 24/08/1971	End of gold convertibility for all countries following USA 15/08/1971 relinquishment of gold standard CF back to BF as monetary anchor
27/08/1971 – 11/03/1976	pegged; dual rate; official rate Z1 = SDR1 , = 1.777432g gold (nominally)	Banque du Zaïre Circular of 26/08/1971	Change in the name of the country from Congo to Zaïre Zaïre did not follow US\$ devaluation of 18/12/1971 did not either revalue against US\$
12/03/1976 – 1977	pegged to rigid basket;dual rate; official rate Z1=SDR1= 1.777432g gold (nominally)	Presidential Ordonnance of 3/12/1976	Switch to SDR as monetary anchor; Z devalued cross rate prior to the switch = Z = SDR1.629014
12/02/1977 – 31/03/1978	pegged to rigid basket;dual rate; official rate Z1 = SDR1.777432g gold (nominally)	Banque du Zaïre Circular	By 1977: special exchange rate for diamond export; recorded by IMF as dual exchange rate in 1978 only.

Dates	Exchange rates	Legal basis/source	Comments
01/04/1978 – 31/10/1978	pegged to rigid basket; dual rate official rate: Z1 = SDR1	IMF, Board of Governors, Resolution No31-4, 30/04/1976 “Second Amendment”	End of gold par value by agreement of IMF members Large parallel market premium
01/11/1978 – 06/11/1978	pegged to rigid basket; dual rate official rate Z1=SDR0.95	Banque du Zaïre Circular of 11/1/1978	Devaluation during time of an abortive invasion of Shaba (Katanga) province from Angola by “ancients gendarmes Katangais” Freely floating; large parallel market premium
07/11/1978 – 26/11/1978	pegged to rigid basket; dual rate; official rate Z1=SDR0.81	IMF ARER (1979:460)	Devalued Freely floating; large parallel market premium
27/11/1978 – 01/01/1979	pegged to rigid basket; dual rate official rate Z1=SDR0.7614	IMF ARER (1979:460)	Devalued Freely floating; large parallel market premium
01/01/1979 – 23/08/1979	pegged to rigid basket; dual rate official rate Z1=SDR0.5	IMF ARER (1980:449)	Devalued Freely floating; large parallel market premium
24/08/1979 – 21/02/1980	pegged to rigid basket; dual rates; official rate Z1=SDR0.375	IMF ARER (1980:450)	Devaluation. 26/12/1979; currency confiscation; old notes to be exchanged until end year only for new ones up to Z3 000 (US\$1 500) for low income people and Z20 000 (US\$10 000) for high income people
22/02/1980 – 18/06/1981	pegged to rigid basket; dual rate Z1=SDR0.2625	IMF ARER (1981:461)	Devalued .28/01/1980: limited recognition of parallele market by central bank with authorisation to import commodities with foreign exchange from outside banking system; Freely floating
19/06/1981 – 11/09/1983	pegged to rigid basket; Z1=SDR0.1575	IMF ARER (1981:461)	Devalued Freely floating; large parallel market premium

Dates	Exchange rates	Legal basis/source	Comments
12/09/1983 – 29/02/1984	managed float, dual rate	Banque du Zaïre, Circular No 199 of 10/09/1983	Devalued to Z1=SDR0.035425; then floating currency as liberalisation measure; also back to dual rate Free rate: 5% above official rate from 17/10 1938 and 2.5% above from 02/01/1984
01/03/1984 – 21/10/1993	independent float, dual rate; official rate: Z1=0.95	Banque du Zaïre, Circular No 210 of 29/02/1984	unified exchange rate. 19/08/1991: official weekly auction “fixing” rate unified with “out of fixing” rates on other days of the week Large parallel market premium; Managed float Oct. 1991–Sep. 1992: hyperfloat
22/10/1993 – 29/06/1998	New Zaïre (NZ); managed float (IMF: independent float)	Zaïre Ordinance-Loi No93/003 of 28/09/1993 17/05/1997: end of President Mobutu regime toppled by President Laurent Kabila Country: back to its former name Democratic republic of the Congo	NZ introduced at 3million old Z; exchange rate of NZ: NZ3 = US\$1; 11% devaluation compared to previous rate of old Z “Hyperfloat” Nov.1993–Sep. 1994; managed float to Nov1997. From 1993 until late 1997: country divided into 2 to 4 monetary zones
30/06/1998 – 21/01/2000	Congolese franc CF; managed float (IMF: independent float)	Democratic Republic of the Congo (DRC), Decree-Law of 17/06/1998	Introduction of a new currency at CFI = NZ100 000 initial mid-rate: CFI,405 = US\$1 one-year transition period for exchanging old currency. new currency came as an effort to a unified monetary area in the country divided into several monetary zones prior to this reform
22/01/2000 – 11/06/2000	pegged, multiple rates; official rate: CF9 = US\$1	IMF ARER (2001:243)	Devalued from CF4.5 = US\$1; pegged to US\$ re-introduction of multiple exchange rates Peace in civil war: rather elusive
12/06/2000 – 23/10/2000	pegged, multiple rates; official rate: CF23.50 = US\$1	IMF ARER (2001:243)	Devalued further during civil war At least one of the rates: floating
24/10/2000 – 25/05/2001	pegged, multiple rates; official rate: CF50 = US\$1	IMF ARER (2001:243)	Devalued At least one of the rates: floating
Since 26/05/2001	independent float	IMF ARER (2002:247)	floated and unified exchange rate

Source: (Mambu 2003); (Schuler 2004); (Banque Centrale du Congo 2005); IMF (2005)

5. CONCLUDING REMARKS

To sum up, as can be seen from the synoptic Table above, this paper explored the history of monetary anchor and exchange rates arrangements of the Congo that is known today as the Democratic Republic of the Congo, a country which started as an independent state established in 1885 as a private property of the Belgian King Leopold II until it became a Belgian colony in 1908. As an introduction, exchange rate arrangements prior to 1885 between currencies of the Kingdom of Congo known since the 15th century and Portuguese currencies were briefly addressed to mention the early presence of European currencies in Congo.

The monetary and financial system that the Belgian Monarch set up in the *Etat Indépendant du Congo* in his capacity as the Sovereign of the State was basically marked by the ownership that he claimed over the Congolese territory, regardless of the provisions of the 1885 Berlin Act, which guaranteed free circulation of currencies and capital flows within the boundaries of the Congo basin. The key monetary provisions were virtually Gold Standard-based, with silver coins externally convertible and unsecured State bills, but no free minting or internal circulation of gold coins.

During the colonial period, regardless of the separation established by law between Belgium and its Colony, the Congolese currency was subject to devaluations that were decided on the basis of external conditions relating to metropolitan economic and monetary development. This policy was applied on the disputable grounds that a differentiation of the exchange rate between the two currencies would be detrimental to both the Belgian and the Congolese economies. And yet the separation of the two currencies was systematically either cited or merely ignored, depending on what was in the interest of metropolitan Belgium. Whenever Belgium devalued its currency the CF was forced to devalue in the same way. As pointed out by Wertz (1952), while it was obvious that a devaluation of the CF would not trigger an automatic and equivalent devaluation of the BF, given the legal separation of the two currencies, by the same token the reverse ought to be applicable. In practice, as a result of the political unbalance of power, metropolitan interests defeated legal provisions.

Following independence of Congo in June 1960, the currency union formed with the two territories known today as Rwanda and Burundi ceased. The hard peg with a fixed exchange rate at 1 Congolese franc for 1 Belgian franc was abandoned in November 1961, time from which the US dollar became the monetary anchor. From then on the history of exchange rate arrangements in Congo was marked by rather erratic developments. The country implemented frequent monetary reforms and moved successively from one monetary anchor to another, switching sometimes to the US dollar, sometimes back to the Belgian franc, and sometimes to the SDR, as well as from

hard peg to soft peg. Likewise, over time since independence, the Congolese currency swung alternatively from a single exchange rate to dual and even multiple exchange rates.

REFERENCES

- Annales Parlementaires, 1920-1921 Bruxelles: Chambres des Représentants, session ordinaire, pp. 178-199
- Banque Centrale du Congo Belge et du Ruanda-Urundi (BCCBRU) (1957) L'Evolution Bancaire au Congo Belge et au Ruanda-Urundi, *Bulletin de la BCCBRU*, **1**, pp. 1-16
- Banque Centrale du Congo Belge et du Ruanda-Urundi (BCCBRU) (1957) L'Evolution Bancaire au Congo Belge et au Ruanda-Urundi, *Bulletin de la BCCBRU*, **2**, pp. 53-66
- Banque Centrale du Congo Belge et du Ruanda-Urundi (BCCBRU) (1957) L'Evolution Bancaire au Congo Belge et au Ruanda-Urundi, *Bulletin de la BCCBRU*, **3**, pp. 93-116
- Banque Centrale du Congo Belge et du Ruanda-Urundi (BCCBRU) (1957) L'Evolution Bancaire au Congo Belge et au Ruanda-Urundi, *Bulletin de la BCCBRU*, **11**, pp. 437-452
- Banque du Congo Belge (1960) *Banque du Congo Belge, 1909-1959*, Brussels: Editions L. Cuypers
- Banque Nationale de Belgique (1952) Aperçu sur l'Organisation Monétaire et Bancaire au Congo Belge, *Bulletin d'Information et de Documentation de la Banque Nationale de Belgique* **1**, pp. 313-323
- Banque Nationale de Belgique (2002) L'Institut Belgo-Luxembourgeois du Change, Brussels: *Revue Personnel*, June, NBB Document N° 1001
- Banque Nationale du Congo/Banque du Zaïre, Annual Reports 1967-1995
- Beaugrand, P. (1997) *Zaïre's Hyperinflation, 1990-1996*, Working Paper WP/97/50, Washington DC: IMF
- Bontinck, F. (1987), Les Makuta dans le Passé, *Zaïre-Afrique*, **216**, pp. 357-379
- Bornemann, E., H. Flickenschild, P. Duran and C. Bindert (1979), *Zaïre – Recent Economic Developments*, IMFSM/79/85, Washington DC: IMF
- Bulletin de la Banque Centrale du Congo Belge et du Ruanda-Urundi, 1952-1959*, Various issues
- Bulletin Officiel de l'Etat Indépendant du Congo, 1887*, Bruxelles: Etat Indépendant du Congo, Various Issues from 1887 to 1908
- Cagan, P. (1956) *The Monetary Dynamics of Hyperinflation* in M. Friedman ed., *Studies in the Quantity Theory of Money*, University of Chicago Press, pp. 25-117
- Cuvelier, J. (1946) *L'Ancien Royaume du Congo*, Brussels: Desclée de Brouwer
- Droogmans, H. (1906) Le Mouvement Géographique, Droogman's Report edited by the *Bulletin Officiel de l'Etat Indépendant du Congo*, Col 644
- Dartevelle, E. (1953) *Les N'zimbu, Monnaie du Royaume de Congo*, Brussels: Société Royale Belge d'Anthropologie et de Préhistoire.
- de Lannoy, Ch. (1931) *L'Evolution du Billet de Banque comme Instrument Monétaire*, Brussels: Librairie du Recueil Sirey
- Dupriez, C. (1949) *Monnaies et Essais Monétaires du Royaume de Belgique et du Congo Belge*, Brussels: B. Franceschi
- Gérard, M.-L. (1925) *Note Sommaire sur le Change dans ses Rapports avec le Budget de la Colonie*, in Rapport du Comité Permanent du Congrès Colonial (1925) *La Politique Financière du Congo Belge*, Brussels: Goemaere, pp. 81-88
- Halewyck, M. (1910) *La Charte Coloniale*, Vol. 2, pp. 13-14, Brussels: M. Weissenbruch, Imprimeur du Roi
- Herman, F. (1962) La Création du Marché Libre à Léopoldville, *Etudes Congolaises*, (1), pp. 25-35

- Kikassa, M. (1989) L'Endettement Extérieur du Zaïre, *Zaïre-Afrique*, (237) pp. 351-395
- Leslie, W.J. (1987) *The World Bank and Structural Transformation in Developing Countries The Case of Zaïre*, London: Lynne Rienner Publishers
- Louwers, O. (1934) Notre Politique Coloniale. A Propos du Discours du Prince Léopold au Sénat, *La Revue Catholique des Idées et des Faits*, (40-41 & 42) Brussels: Imprimerie A. Lesigne
- Mabi, M. (1997), La Réforme Monétaire du 22 Octobre 1993: Analyse Critique, *Zaïre-Afrique*, 37, (320, 381-398)
- Mahieu, A. (1924) *Numismatique du Congo*, Brussels: Imprimerie Médicale et Scientifique
- Mambu, E. (1964) *Les Institutions Bancaires dans l'Economie Congolaise, 1950-1963*, BA Dissertation, Kinshasa: Université Lovanium de Kinshasa
- Mambu, E. (2003) A Modern History of Monetary and Financial Systems of Congo 1885-1995, PhD thesis, the University of Greenwich, London
- Mambu, E. (2005) Dollarisation and Overshooting in Congo during the 1990s, an Empirical Estimate, ICAFT-2005 Working paper, publication in progress, Greenwich University Press
- Masangu, J.C. (1997) La Situation Economique, Financière et Monétaire Récente du Congo, *Zaïre-Afrique*, (319), pp. 517-540
- Ministère de l'Economie Nationale et de l'Industrie (1969) *Conjoncture Economique*, Monthly periodical, Various issues, Kinshasa: Imprimerie des Magasins Généraux
- Moens, J. (1976) *Le Royaume de Belgique et l'Union Monétaire Latine (1865-1925)*, unpublished paper, Brussels: Bibliothèque Scientifique de la Banque Nationale de Belgique, 333.43
- Moniteur Belge (1908), *Journal Officiel*, Various Issues, Brussels: Ministère de la Justice
- Office de Gestion de la Dette Publique – OGEDEP (1981), Annual Report, Kinshasa: Imprimerie des Magasins Généraux
- Salama, P. and Vallier, J. (1990), *L'Economie Gangrénée: Essai sur l'Hyperinflation*, Paris: La Découverte
- Schuler, K. (2005), *Tables of Modern Monetary History: Africa*, <http://users.erols.com/kurrency/africa.htm> [accessed 05/02/2006], work in progress.
- Slade, R. (1962) *King Leopold's Congo*, London: Oxford University Press
- Vanderlinden, J. (ed), A. Huybrechts, V.Y, Mundimbe, L. Peeters, D. Van Der Steen, B. Verhaegen, (1980) *Du Congo au Zaïre 1960-1980*, Brussels: Centre de Recherche et d'Information Socio-Politique (CRISP)
- Van Meerhaeghe, M.A.G. (1987) *The Belgium-Luxemburg Economic Union*, Tilburg: Société Universitaire Européenne de Recherches Financières (SUERF)
- Wangermée, E.A. (1909), *Grands Lacs Africains et Katanga, Souvenirs de Voyage*, Brussels: J. Lebegue & Cie
- Wertz, J. (1952) Quelques Aspects de l'Organisation Financière du Congo Belge et du Ruanda-Urundi, in *Encyclopédie du Congo Belge*, Brussels: Editions Bieleveld, pp. 575-614
- Willis, H.P. (1901) *A History of the Latin Monetary Union*, Chicago: The University of Chicago Press
- Young, C. and Turner, T. (1985) *The Rise and Decline of the Zaïrian State*, Wisconsin: The University of Wisconsin Press

ROBERT W. MCGEE, AND YEOMIN YOON

TAX EVASION AND ETHICS: A COMPARATIVE STUDY OF ASIAN AND EUROPEAN OPINION

ABSTRACT

The ethics of tax evasion has been discussed sporadically in the theological and philosophical literature for at least 500 years. Martin Crowe wrote a doctoral thesis that reviewed much of that literature in 1944. The debate revolved around about 15 issues. Over the centuries, three main views evolved on the topic. But the public finance literature has paid scant attention to this issue, perhaps because of the belief that tax evasion is always unethical. This paper examines the tax evasion data for China, Japan, Korea, Finland, Germany and the United Kingdom that was gathered as part of a much larger study on human beliefs and values. Country comparisons were made as well as comparisons based on gender and age to determine whether views on tax evasion differ based on those two demographics.

Key words: tax evasion, ethics, China, Japan, Korea, Finland, Germany, United Kingdom

1. INTRODUCTION

Although tax evasion has been discussed extensively in the economics and public finance literature, little has been said about it from the perspective of ethics. There are some exceptions. Martin Crowe (1944), a Catholic priest, conducted an extensive review of 500 years worth of the religious and philosophical literature on the ethics of tax evasion. More recently McGee (1998a) published an edited book on the subject and Torgler (2003) published a doctoral dissertation on tax morale, a portion of which investigated ethical aspects of tax evasion.

Several studies have been done from various religious perspectives, including Christianity (Gronbacher, 1998; Pennock, 1998), Judaism (Cohn, 1998; McGee & Cohn, 2006; Tamari, 1998), Islam (McGee, 1998b; Murtuza & Ghazanfar, 1998), Baha'i (DeMerville, 1998) and Mormon (McGee & Smith, 2006; Smith & Kimball, 1998). If one were to summarize these studies in a single sentence it would be that Jews, Baha'is and Mormons are strongly opposed to tax evasion, whereas Christians and Muslims are more flexible on the topic.

Some theoretical country studies have also been done. Ballas and Tsoukas (1998) discuss tax evasion and government corruption in Greece. Morales (1998) reports on the ethics of tax evasion from a Mexican perspective and concludes that the duty to one's family at times supersedes one's duty to

the state. Preobragenskaya and McGee (2004) and Vaguine (1998) examine tax evasion in Russia. Smatrakalev (1998) discusses tax evasion in Bulgaria. These studies all conclude that there is a widespread feeling that tax evasion is ethically justifiable in at least some circumstances, a conclusion that corresponds closely to that reflected in the Christian literature that Crowe (1944) discussed in his research.

Some empirical studies and surveys have been conducted to determine the views on tax evasion in several countries. McGee (1999) conducted a survey to determine why tax evasion is so prevalent in Armenia. A more recent study looked at tax evasion in Armenia in more depth (McGee & Maranjyan, 2006). Country studies have also been conducted for Argentina (McGee & Rossi, 2006), Bosnia (McGee, Basic & Tyler, 2006), China (McGee & An, 2006; McGee & Guo, 2006), Germany (McGee, Nickerson & Fees, 2006), Guatemala (McGee & Lingle, 2005), Hong Kong (McGee & Ho, 2006), Macau (McGee, Noronha & Tyler, 2006), Taiwan (McGee & Andres, 2007), Poland (McGee & Bernal, 2006), Romania (McGee, 2006a) and Slovakia (McGee & Tusan, 2006).

If one were to summarize these studies in a single sentence it would be that most people find tax evasion to be ethical in some situations, although some arguments to justify tax evasion are stronger than others. These studies generally found that there are three basic positions on the ethics of tax evasion – it is never ethical, sometimes ethical or always ethical, although support for the *always ethical* position was the weakest of the three. These three positions are discussed in depth by McGee (2006b).

2. THE PRESENT STUDY

2.1. METHODOLOGY

The present study used a methodology that is different from those of the other empirical studies mentioned above. It uses data that were collected as part of a much larger study of human beliefs and values. The Human Beliefs and Values Surveys (Inglehart *et al.* 2004) collected responses to hundreds of questions from 200,000 people in 81 societies representing 85 percent of the world's population. The data collected are a gold mine for social science researchers. However, the method of collection could be criticized. The interviews were face to face, which introduces a bias, since people might have different answers to some questions if they could answer anonymously. But even with this bias it is possible to examine certain relationships.

Studies have examined the relationship between ethical behavior and other factors such as gender and age. The present study examines these variables in order to determine whether these factors have any relationship to opinions on the ethics of tax evasion.

Comparing the findings in the Human Beliefs and Values Surveys to the various tax evasion surveys cited above would not yield many useful conclusions, for several reasons. For one, different groups were surveyed. The Human Beliefs and Values Surveys gathered the views of a wider demographic, with widely varying age, education and income, whereas the various tax evasion studies gathered data from university students, who are younger, poorer and more educated than the general population.

Another reason why any comparison between the two groups of studies would not yield any strong conclusions is because of the different ways in which the data were gathered. The various tax evasion surveys gathered data anonymously whereas the Human Beliefs and Values surveys gathered data by face to face interviews. Individuals might be less likely to admit they find little or nothing wrong with tax evasion if some stranger is asking them the question face to face. That might explain why the Human Beliefs and Values Survey scores for Slovakia show that Slovaks are strongly opposed to tax evasion whereas the McGee and Tusan (2006) survey of Slovakia revealed just the opposite.

The question used in the Human Beliefs and Values surveys was as follows:

“Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between: Cheating on taxes if you have a chance.” (Inglehart *et al*, 2004, Table F116).

The scale on the survey was from 1 to 10 where 1 represents “never justifiable” and 10 represents “always justifiable.”

Table 1 shows the sample size for each of the six countries included in the study. The total sample was 6,543. China, Japan and Korea were chosen as representative Asian countries. They all have large populations and have strong economies, although they differ as to culture and political system. China is still in a state of transition from a centrally planned economy to a market economy whereas Japan and Korea have long had market economies. One might expect that Chinese people would be less averse to tax evasion than taxpayers in Japan and Korea because people who live under communism generally have little respect for their government. At least that was the case for the former Soviet countries and the countries in Eastern and Central Europe that were Soviet satellites until 1989. That premise could be tested with the data used in the present study. As representative European countries, Germany, United Kingdom, and Finland were chosen.

Finland was chosen as one of the representative European countries because Finland and the other Scandinavian countries have a reputation for being relatively free of corruption. The corruption indexes that have been published in recent years rank the Scandinavian countries as being among the least corrupt in the world. Presumably, that means the citizens of Finland would be most opposed to tax evasion. The present study tests this premise.

TABLE 1. – **Sample size**

China	985
Finland	1026
Germany	1029
Japan	1312
Korea	1199
United Kingdom	992
Total	6543

Germany was chosen because it is the largest economy in continental Europe. The United Kingdom was chosen because it has a strong economy and has a common law legal system, and thus differs from the continental European countries, which have civil law systems. Thus, the choices for the European group provide a certain diversity. Whether this diversity would result in diversity of viewpoint toward tax evasion is a question that the present study was able to answer.

Comparisons were made between Asian and European countries in total and also between the various Asian countries and the three European countries to determine whether the view toward tax evasion differed by country. Gender and age comparisons were also made to determine whether views differed by gender or age.

2.2. FINDINGS

Table 2 compares the mean scores for the six countries. The results are separated by continent. The three Asian countries in the study had the three lowest mean scores, which indicates that Asians (or at least Asians in the three selected countries) are more opposed to tax evasion than are Europeans. This finding is somewhat surprising, especially when one considers that China, a communist country, was included in the survey. One would expect that communist countries would be less opposed to tax evasion, given the evidence of lack of respect for government that was pervasive in communist countries in Europe and the former Soviet Union. But such was not the case.

One possible explanation for this somewhat surprising finding is due to the methodology used to collect the data. Interviewers asked respondents face to face what their views were on a wide range of issues, including tax evasion. It is possible that respondents were not willing to state their true feelings, since responses were not anonymous and since the communist government might punish them for saying anything that appeared to be anti-government.

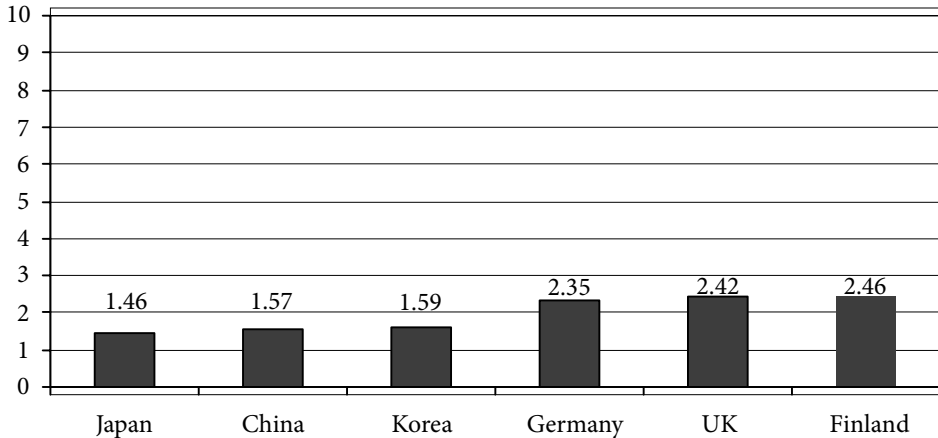
Chart 1 shows the relative scores for each country graphically. The three Asian countries included in the sample all had lower scores than the European countries. However, none of the mean scores were greater than 2.50

which, on a scale of 1 to 10 indicates that there was strong opposition to tax evasion for all countries included in the study. Such an analysis helps on the put things in perspective.

TABLE 2. – **Comparison of mean scores**
(1 = never justifiable; 10 = always justifiable)

ASIA	
China	1.57
Japan	1.46
Korea	1.59
Average Asia	1.54
EUROPE	
Finland	2.46
Germany	2.35
United Kingdom	2.42
Average Europe	2.41

CHART 1. – Mean Scores



Although the Asian scores were lower than those of the European countries included in the study, the question remains whether they were significantly different. That question is answered in Table 3.

When one uses Wilcoxon tests to compare the overall Asian scores to the overall European scores, one finds that the Asian scores are significantly different from the European scores at the 1 percent level. Comparing scores within the groups also yields some interesting results. Comparing the scores of the individual Asian countries found that the Japanese mean score was significantly lower than both the Chinese and Korean scores but that there was no statistical difference between the Chinese and Korean scores.

TABLE 3. – Comparison of p values for mean scores

Comparison	p Value	
Asia v. Europe	4.281e-71	*
China v. Japan	0.01268	**
China v. Korea	0.3436	
Japan v. Korea	0.0003024	*
Finland v. Germany	0.4341	
Finland v. UK	0.5951	
Germany v. UK	0.6966	
* Significant at 1%		
** Significant at 5%		

Comparisons within the European group found no statistical differences. Although Germany had the lowest score within the European group, its score was not significantly different from the score from Finland, which had the highest score. What was surprising was that the score for Finland was the highest of any of the six countries. Finland and the other Scandinavian countries are among the least corrupt countries on earth according to various corruption studies, yet Finnish people are the least averse to tax evasion of the six countries included in the present study.

There are several possible explanations for this unexpected finding. One explanation is that the Finnish people, being more honest than people from other countries, gave responses during the course of the face to face interviews that were more honest, whereas participants from the other countries tended to lie more frequently. Another possible explanation is that the Fins are less opposed to tax evasion because Finland is one of the most heavily taxed countries on earth and they feel that the government is not entitled to take such a high percentage of their income from them.

Any explanation is speculative, of course. In order to find the real reason for the relatively high Finnish score one must ask the participants for the reasons behind their responses, which the interviewers did not do. Respondents were asked to answer more than 200 questions and it would not have been feasible to ask them the reasons behind the 200+ responses, so the data gatherers should not be criticized too harshly for failing to gather more detailed data.

The findings in the present study confirm those found in similar studies of Asian countries (McGee, 2006c), Vietnam (McGee, 2006d) and thirty-three countries from several continents (McGee & Tyler, 2007) that used the Human Beliefs and Values survey data. However, the present findings conflict with tax evasion studies of China (McGee & An, 2006; McGee & Guo, 2006), Hong Kong (McGee & Ho, 2006), Macau (McGee, Noronha & Tyler, 2006) and Taiwan (McGee & Andres, 2007). Those studies found that there was widespread acceptance of tax evasion.

The difference in findings can perhaps be explained by the methodology. In the other studies an anonymous survey instrument was used, whereas the data gathered in the Human Beliefs and Values surveys were gathered in face-to-face interviews. Another difference was the make-up of the groups surveyed. In the other studies of Chinese populations the groups surveyed consisted of university students, who were mostly under age 25. The sample in the present survey consisted of a wider range of ages.

2.2. GENDER

Many studies have been conducted that compare ethical attitudes of men and women. Some studies found that women are more ethical than men (Akaah, 1989; Boyd, 1981; Hoffman, 1998) while other studies found that there is not a significant difference between the ethics of men and women (Browning & Zabriskie, 1983; Harris, 1990; Nyaw & Ng, 1994). Some studies found that men are more ethical than women (Barnett & Karson, 1987; Weeks *et al.*, 1999). This study examines the Inglehart *et al.* (2004) data to determine whether one gender was more opposed to tax evasion than the other.

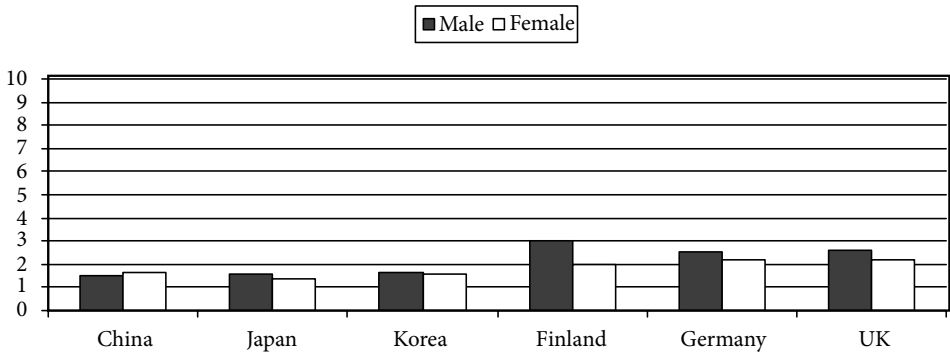
Table 4 shows the results by gender. In five out of six cases (83.3%), women were more opposed to tax evasion than were men. The only case where men were more opposed to tax evasion was China, and in that case the difference in mean scores was not statistically significant ($p \leq 0.7215$). The difference in the Korean sample was not statistically significant either, if one defines significance at 1, 5 or 10 percent. Korean women would be significantly more opposed to tax evasion if significance were defined at 16 percent ($p \leq 0.1567$).

TABLE 4. – Gender comparisons
(1 = never justifiable; 10 = always justifiable)

Country	Male Mean Score	Female Mean Score	p value	
China	1.53	1.61	0.7215	
Japan	1.59	1.35	0.04061	**
Korea	1.63	1.55	0.1567	
Finland	3.01	1.97	1.203e-08	*
Germany	2.54	2.20	0.005075	*
United Kingdom	2.63	2.22	0.001657	*
* Significant at 1%				
** Significant at 5%				

Chart 2 shows the gender results graphically.

CHART 2. – Gender Comparisons



However, one must be careful not to conclude from these findings that women are more ethical than men. In order to reach this conclusion, one must begin with the premise that tax evasion is unethical, which may or may not be the case. The philosophical literature over the last 500 years has presented arguments that would justify tax evasion in certain cases (Crowe, 1944) and more recent empirical literature has found support for tax evasion in cases where the government engages in human rights abuses, where the government is corrupt, where the tax system is considered to be unfair or where tax rates are deemed to be too high (McGee, 1999, 2006a; McGee & AN, 2006; McGee & Andres, 2007; McGee & Bernal, 2006; McGee & Cohn, 2006; McGee & Guo, 2006; McGee & Ho, 2006; McGee & Lingle, 2005; McGee & Rossi, 2006; McGee & Smith, 2006; McGee & Tusan, 2006).

2.2.2. AGE

Some studies have found that people have more respect for government and for authority as they get older (Alm & Torgler, 2004; McGee & Tyler, 2007). Presumably this means that people become more averse to tax evasion as they get older. This study tests this assumption by comparing the scores for the three age groups that the Human Beliefs and Values surveys gathered.

Table 5 shows the mean scores for each country for three different age ranges. As can be seen, mean scores decline as respondents get older. This tendency holds true for each age group and for each country. Thus, the present study confirms the findings of other studies that found that people tend to have more respect for government and law as they become older.

Chart 3 shows the age differences graphically. In some cases the differences are slight. In other cases they are more dramatic.

TABLE 5. – Mean scores by age

Country	15–29	30–49	50+
China	1.73	1.55	1.50
Japan	1.64	1.45	1.40
Korea	1.73	1.58	1.45
Finland	3.07	2.70	1.98
Germany	2.82	2.49	2.00
United Kingdom	3.41	2.56	1.78
Averages	2.40	2.06	1.69

3. CONCLUDING COMMENTS

The strongest conclusion that can be drawn from the present study is that all groups were strongly opposed to tax evasion. This finding conflicts with other studies on the ethics of tax evasion. The differing conclusions might be due to the different methodologies that were used in those other studies. Anonymous survey data might tend to produce different results than data gathered in face-to-face interviews. Studies that were done using the same data set and the same methodology as the present study had results that were similar to the present study.

The sample population from Japan tended to be more strongly opposed to tax evasion than were the sample populations from the other two Asian countries. But the populations sampled in all three Asian countries were nevertheless strongly opposed to tax evasion. Although less opposed to tax evasion than the Asian countries, the three European countries included in the present study were also strongly opposed to tax evasion.

The gender comparison was also rather strong in its conclusions. Women have a strong tendency to be more opposed to tax evasion, although not in all countries. But in no cases were men significantly more opposed to tax evasion.

Another conclusion that can be drawn from the study is that people tend to become more opposed to tax evasion as they get older. This could be because older people have more respect for government and the rule of law than do younger people. This finding was expected and the present study confirms the findings of other studies on the relationship between age and respect for law.

REFERENCES

- Akaah, I. P. (1989). Differences in Research Ethics Judgments between Male and Female Marketing Professionals. *Journal of Business Ethics* 8, 375-381.
- Alm, J. & Torgler, B. (2004). Estimating the Determinants of Tax Morale. National Tax Association – Tax Institute of America. Proceedings of the Annual Meeting. 269-274.

- Ballas, A. A. & Tsoukas, H. (1998). Consequences of Distrust: The Vicious Circle of Tax Evasion in Greece. *Journal of Accounting, Ethics & Public Policy*, **1**, 572-596.
- Barnett, J. H. & Karson, M.J. (1987). Personal Values and Business Decisions: An Exploratory Investigation. *Journal of Business Ethics* **6**, 371-382.
- Boyd, D. P. (1981). Improving Ethical Awareness through the Business and Society Course. *Business and Society* **20**, 21, 2, 1: 27-31.
- Browning, J. & Zabriskie, N.B. (1983). How Ethical Are Industrial Buyers? *Industrial Marketing Management* **12**, 219-224.
- Cohn, G. (1998). The Jewish View on Paying Taxes. *Journal of Accounting, Ethics & Public Policy*, **1**, 109-120.
- Crowe, M.T. (1944). The Moral Obligation of Paying Just Taxes, *The Catholic University of America Studies in Sacred Theology* No. 84.
- DeMerville, W. (1998). The Ethics of Tax Evasion: A Baha'i Perspective. *Journal of Accounting, Ethics & Public Policy*, **1**, 356-368.
- Gronbacher, G.M.A. (1998). Taxation: Catholic Social Thought and Classical Liberalism. *Journal of Accounting, Ethics & Public Policy*, **1**, 91-100.
- Harris, J. R. (1990). Ethical Values of Individuals at Different Levels in the Organizational Hierarchy of a Single Firm. *Journal of Business Ethics* **9**. 741-750.
- Hoffman, J. J. (1998). Are Women Really More Ethical Than Men? Maybe It Depends on the Situation. *Journal of Managerial Issues* **10**, 60-73.
- Inglehart, R., Basanez, M., Diez-Medrano, J., Halman, L. & Luijckx, R. (Eds.). (2004). *Human Beliefs and Values: a cross-cultural sourcebook based on the 1999-2002 values surveys*. Mexico: Siglo XXI Editores.
- Inglehart, R., Basanez, M. & Moreno, A. (Eds.) (1998). *Human Values and Beliefs: A Cross-Cultural Sourcebook*. Ann Arbor, Mi: University of Michigan Press.
- McGee, R. W. (Ed.). (1998a). *The Ethics of Tax Evasion*. Dumont, NJ: The Dumont Institute for Public Policy Research.
- McGee, R. W. (1998b). The Ethics of Tax Evasion in Islam: A Comment. *Journal of Accounting, Ethics & Public Policy*, **1**, 162-168.
- McGee, R. W. (1999). Why People Evade Taxes in Armenia: A Look at an Ethical Issue Based on a Summary of Interviews. *Journal of Accounting, Ethics & Public Policy*, **2**, 408-416.
- McGee, R.W. (2006a). The Ethics of Tax Evasion: A Survey of Romanian Business Students and Faculty. *The ICAI Journal of Public Finance* **4**, 38-68.
- McGee, R.W. (2006b). Three Views on the Ethics of Tax Evasion. *Journal of Business Ethics* **67**, 15-35.
- McGee, R.W. (2006c). *Ethics and Tax Evasion in Asia*. 2006 Academy of International Business Southeast Asia Regional Conference, Bangkok, December 7-9, 2006.
- McGee, R.W. (2006d). *The Ethics of Tax Evasion: A Survey of Vietnamese Opinion*. 2006 Academy of International Business Southeast Asia Regional Conference, Bangkok, December 7-9, 2006.
- McGee, R. W. & An, Y. (2006). The Ethics of Tax Evasion: A Survey of Chinese Business and Economics Students. *Proceedings of the International Academy of Business and Public Administration Disciplines (IABPAD) Winter Conference*, Orlando, Florida, January 3-6, pp. 764-778. Reprinted at www.ssrn.com.
- McGee, R.W. & Andres, S.N.V. (2007). *The Ethics of Tax Evasion: A Case Study of Taiwan*, Presented at the 19th Annual Meeting of the International Academy of Business Disciplines (IABD), Orlando, Florida, March 29-April 1, 2007.
- McGee, R.W., Basic, M. & Tyler, M. (2006). *The Ethics of Tax Evasion: A Survey of Bosnian Opinion*. Presented at the Fifteenth Annual World Business Congress of the International Management Development Association (IMDA), Sarajevo, Bosnia, June 18-21.

McGee, R. W. & Bernal, A. (2006). *The Ethics of Tax Evasion: A Survey of Business Students in Poland*. Sixth Annual International Business Research Conference, co-sponsored by the Coggin College of Business, University of North Florida and the School of Management, Warsaw University, February 10-11, 2006, Jacksonville, Florida. Reprinted at www.ssrn.com.

McGee, R. & Cohn, G. (2006). *Jewish Perspectives on the Ethics of Tax Evasion*. Andreas School of Business Working Paper, Barry University.

McGee, R. W. & Guo, Z. (2006). The Ethics of Tax Evasion: A Survey of Law, Business and Philosophy Students in China. *Proceedings of the International Academy of Business and Public Administration Disciplines (IABPAD), 2006 Winter Conference*, Orlando, Florida, January 3-6, pp. 748-763. Reprinted at www.ssrn.com.

McGee, R. W. & Ho, S.S.M. (2006). The Ethics of Tax Evasion: A Survey of Accounting, Business and Economics Students in Hong Kong, *Proceedings of the International Academy of Business and Public Administration Disciplines (IABPAD), 2006 Winter Conference*, Orlando, Florida, January 3-6. Reprinted at www.ssrn.com.

McGee, R. W. & Lingle, C. (2005). *The Ethics of Tax Evasion: A Survey of Guatemalan Opinion*, Presented at the 60th International Atlantic Economic Conference, New York, October 6-9, 2005. Also available at www.ssrn.com.

McGee, R.W. & Maranjyan, T. (2006). *Tax Evasion in Armenia: An Empirical Study*. Working Paper No. 06/10, Washington, DC: Armenian International Policy Research Group.

McGee, R.W., Nickerson, I. & Fees, W. (2006). *German and American Opinion on the Ethics of Tax Evasion*. Academy of Legal, Ethical and Regulatory Issues (ALERI), Fall, 2006 Conference, Reno, Nevada, October 19-21.

McGee, R.W., Noronha, C. & Tyler, M. (2006). *The Ethics of Tax Evasion: A Survey of Macau Opinion*. Presented at the Fifteenth Annual World Business Congress of the International Management Development Association (IMDA), Sarajevo, Bosnia, June 18-21, 2006, pp. 114-123.

McGee, R. W. & Rossi, M.J. (2006). *The Ethics of Tax Evasion: A Survey of Law and Business Students in Argentina*. Sixth Annual International Business Research Conference, co-sponsored by the Coggin College of Business, University of North Florida and the School of Management, Warsaw University, February 10-11, 2006, Jacksonville, Florida. Reprinted at www.ssrn.com.

McGee, R.W. & Smith, S.R. (2006). *Ethics, Tax Evasion and Religion: A Survey of Opinion of Members of the Church of Jesus Christ of Latter-Day Saints*, Andreas School of Business Working Paper, Barry University.

McGee, R. & Tusan, R. (2006). *The Ethics of Tax Evasion: A Survey of Slovak Opinion*. Andreas School of Business Working Paper, Barry University.

McGee, R.W. & Tyler, M. (2007). Tax Evasion and Ethics: A Comparative Study of 33 Countries. Presented at the 2007 International Academy of Business and Public Administration Disciplines (IABPAD) Winter Conference, Orlando, Florida, January 4-7, 2007. *Proceedings of the International Academy of Business and Public Administration Disciplines* 4(1): 709-729 (2007).

Morales, A. (1998). Income Tax Compliance and Alternative Views of Ethics and Human Nature. *Journal of Accounting, Ethics & Public Policy*, 1, 380-399.

Murtuza, A. & Ghazanfar, S.M... (1998). Taxation as a Form of Worship: Exploring the Nature of Zakat. *Journal of Accounting, Ethics & Public Policy*, 1, 134-161.

Nyaw, M. & Ng, I. (1994). A Comparative Analysis of Ethical Beliefs: A Four Country Study. *Journal of Business Ethics* 13, 543-555.

Pennock, R. T. (1998). Death and Taxes: On the Justice of Conscientious War Tax Resistance. *Journal of Accounting, Ethics & Public Policy*, 1, 58-76.

Preobragenskaya, G. G. & McGee, R.W. (2004). Taxation and Public Finance in a Transition Economy: A Case Study of Russia. In C. Gardner, J. Biberman & A. Alkhafaji (Eds.), *Business Research Yearbook: Global Business Perspectives Volume XI* (pp. 254-258) Saline, MI: McNaughton & Gunn, Inc. A longer version, which was presented at the Sixteenth Annual Conference of the International Academy of Business Disciplines in San Antonio, March 25-28, 2004, is available at <http://ssrn.com/abstract=480862>.

Smatrakalev, G. (1998). Walking on the Edge: Bulgaria and the Transition to a Market Economy. In R. W. McGee (Ed.), *The Ethics of Tax Evasion* (pp. 316-329). Dumont, NJ: The Dumont Institute for Public Policy Research.

Smith, S. R. & Kimball, K.C. (1998). Tax Evasion and Ethics: A Perspective from Members of The Church of Jesus Christ of Latter-day Saints. *Journal of Accounting, Ethics & Public Policy*, **1**, 337-348.

Tamari, M. (1998). Ethical Issues in Tax Evasion: A Jewish Perspective. *Journal of Accounting, Ethics & Public Policy*, **1**, 121-132.

Torgler, Benno. (2003). Tax Morale: Theory and Empirical Analysis of Tax Compliance. Dissertation der Universität Basel zur Erlangung der Würde eines Doktors der Staatswissenschaften.

Vaguine, V. V. (1998). The "Shadow Economy" and Tax Evasion in Russia. In R. W. McGee (Ed.), *The Ethics of Tax Evasion* (pp. 306-314). Dumont, NJ: The Dumont Institute for Public Policy Research.

Weeks, W. A., Moore, C.W., McKinney, J.A. & Longenecker, J.G. (1999). The Effects of Gender and Career Stage on Ethical Judgment. *Journal of Business Ethics* **20**, 301-313.

ABOUT THE AUTHORS

AGNIESZKA HERDAN is a Senior Lecturer at the University of Greenwich Business School, Department of Accounting and Finance. She received an MSc in Banking and Finance and an MSc in Accounting from Krakow University of Economics. For her PhD, Agnieszka was awarded a First Prize by the Polish Accounting Association for the Best Doctoral Dissertation of the Year. She is the co-author of 5 books and over 40 academic papers. Her research areas include international accounting, mergers and acquisitions, corporate governance, and auditing.

ROBERT W. MCGEE is Director, Center for Accounting, Auditing and Tax Studies at Florida International University in Miami, USA. He has more than 30 years experience as an accounting practitioner and consultant. He is a certified public accountant (CPA), certified management accountant (CMA), certified internal auditor (CIA) and chartered bank auditor (CBA) and has certificates in International Financial Reporting (CertIFR) and International Auditing (Cert IA). He is also an attorney (New York). He earned his BA from Gannon University in Erie, Pennsylvania, an MST from DePaul University in Chicago, a JD from Cleveland State University, a PhD from the University of Warwick and a DSc from Tartu University in Estonia. He also studied at St. Petersburg State University and Odessa National Polytechnic University. He has published more than 50 books and more than 500 articles and book chapters in the fields of accounting, taxation, economics, law, philosophy and ethics. He has published six books on various aspects of accounting, taxation and corporate governance in transition and developing economies.

EDOUARD MAMBU MA KHENZU is a Senior Lecturer in Accounting and Finance at the University of Greenwich Business School. His lectureship experience relates to economics of money and banking, financial and management accounting, financial services and corporate finance. Formerly top- banking system and government official of the Democratic Republic of the Congo, Edouard Mambu gained a first class degree in economics at Lovanium University of Kinshasa in 1964. He joined the University of Greenwich in 1997. He completed an MSc in accounting and finance in 1999 and a PhD in Finance in 2003. Edouard's research interests relate to history of monetary and financial systems. His most recent research work relates to central Africa traditional and modern monetary and financial systems, public governance and monetary and financial policies. He published a monograph entitled '*A Modern History of Monetary and Financial Systems of Congo 1885-1995*', and a number of papers on money and finance-related issues.

CESARIO MATEUS is a Senior Lecturer in Banking and Finance at the University of Greenwich Business School, London, United Kingdom. He holds a PhD in Finance from Aarhus School of Business, University of Aarhus and has received grants and scholarships from the Danish Ministry of Science, Technology and Innovation, American Finance Association and Financial Management Association. His research focuses mainly on corporate finance and, in particular, tax issues, corporate governance issues, capital structure, capital budgeting, dividends, share repurchases and valuation. He has also car-

ried out recently some work in Mutual Funds and ETF's performance. Cesario Mateus' teaching focus is on corporate finance, investment and capital markets and international finance.

RON P. MCIVER is Lecturer in Financial Economics within the School of Commerce at the University of South Australia, from which he has received of a number of Faculty and University awards for excellence in teaching (1997, 2005 and 2007). Previously he has held positions as Senior Lecturer in Quantitative Finance and Investment Management in the Business School of the University of Greenwich (London) and Senior Research Officer (Economics) with the Industries Assistance Commission (Canberra). Ron has provided training and advisory services in finance and economics within the banking and finance industry and the public sector, has acted as a consultant on the design of postgraduate programs, and provided distance-based learning resources for a number of higher education institutions. Ron is an active researcher on Chinese banking reform and the corporate governance of listed companies in China. He has authored and co-authored a variety of journal articles, refereed conference papers, reports and texts on finance, economics, and business and economic education. His latest texts are *Microeconomics* (8th edn.) and *Macroeconomics* (8th edn.) co-authored with John Jackson, and *economic principles* (2nd edn.) co-authored with John Jackson and Chris Bajada (all McGraw-Hill/Irwin, Australia, 2007).

YEOMIN YOON is a professor of finance and international business at Seton Hall University. Professor Yoon has been at Seton Hall since 1989. His specialty is in international finance and trade. Dr Yoon teaches international finance at both undergraduate and MBA levels and a course in global business at the undergraduate level. His research has been widely recognized, achieving some of the largest number of downloads from the Social Science Research Network. He also received a "Bright Idea Award" for compensating balances in finance. His commentaries on global financial and other issues are often published in major newspapers, including *The Financial Times*, *The Economist*, *The Japan Economic Journal*, *The Korea Herald*, and *The Newsweek*. For eight years, 1998-2006, Dr Yoon served as a senior special fellow and/or academic advisor of the United Nations Institute for Training and Research for a program designed to train diplomats and other senior governmental officials of the member states of the UN on global economy and finance.

Detailed instruction for authors

The Journal solicits papers which are 8,000 to 10,000 words in length. Shorter papers between 5,000 and 8,000 words will also be considered for publication, especially if they are review articles or if they put forward new, insufficiently explored ideas and approaches (often deemed to be premature by other journals). Book reviews should exceed 2,000 words and reviewers are required to submit a copy of the book reviewed if they initiate a review of the publication.

All submissions must be in English. However, as this journal belongs to the UN family, it encourages the translation of works originally written in other languages into English. Nevertheless, submission to the journal implicates that the paper has not been published elsewhere (regardless of the language of publication) and that it is not submitted for publication in any other medium.

All papers submitted for publication should be sent electronically to the Editor at the following address: zeljko.sevic@gcal.ac.uk or ecpd@eunet.yu.

Submission of a paper will be held to imply that it contains original unpublished work. The Editor does not accept responsibility for damage or loss of papers submitted. Upon acceptance of an article, author(s) will be asked to transfer copyright of the article to the publisher – the European Center for Peace and Development at the University for Peace established by the United Nations (ECPD). This transfer will ensure the widest possible dissemination of information.

Manuscripts should be double-spaced with wide margins. All pages should be numbered consecutively. Titles and subtitles should be kept as short as possible. References, tables and legends for figures should be inserted into the main text and also submitted as separate files with the final version of the paper. This final version should be sent in hard copy form and on a 3.5" diskette or a CR-Rom to the editor at the following address: Zeljko Sevic, Caledonian Business School, Glasgow Caledonian University, Cowcaddens Road, Glasgow, G4 0BA, Scotland, UK, UK or ECPD, Terazije 41, 11000 Belgrade.

The first page of the manuscript should contain the following information: the title; the name(s) and institutional affiliation(s) of the author(s) and an abstract of not more than 200 words. At the bottom of the cover page, please provide the full postal address, telephone number, fax number, and E-mail address of the corresponding author. Please also supply up to five key words with up to three Journal of Economic Literature codes.

In principle, any acknowledgements, and information on grants received should be given in a first footnote, which should not be included in the consecutive numbering of footnotes, and marked with an asterisk (*).

Footnotes should generally be avoided. The Journal's view is that if the material is worth including in the paper, it should be incorporated into the text. However, footnotes can be used for very long lists of references that would otherwise break up the text, or for material that is substantive but takes the reader too far afield to be easily integrated into the

text. Acknowledgments also belong in the footnotes (e.g., “We thank John Long for suggesting this new approach/test/interpretation.”) A general guideline is no more than one footnote to every 4-5 pages of text, not including acknowledgments and long lists of references. Footnotes are numbered consecutively in Arabic superscripts. Footnotes must not, under any circumstances, include displayed formulae or tables.

Displayed formulae should be numbered consecutively throughout the manuscript as (1), (2), etc. against the right-hand margin of the page. Section headers are left-justified with Arabic numerals. Only the first word is capitalized. Headers are in boldface type, and subheads are in italics. A period follows the last numeral. As headers and subheads introduce text, it is preferable that they not be immediately followed by additional subheads. References in the text to other sections of the paper are capitalized (e.g., “as noted in Section 2.2”).

The first line of each paragraph is indented. The use of the active voice greatly improves the readability of a paper (e.g., “the tests show” or “we show,” not “it is shown”), but authors should avoid the use of ‘I’, since good academic writing should be depersonalised. Italics, quotation marks, and capital letters are considered to be distracting and should be kept to a minimum (although the words *a priori*, etc., i.e., e.g., et al., ex ante, and ex post are italicised). Special terms can be italicised but only at the first occurrence, and all foreign (non-English) words should be italicised. Abbreviations should be kept to a minimum, and the full text with an abbreviation in brackets should be given when the term is used for the first time. Do not assume that all readers are familiar with the abbreviations/acronyms that are used in your paper. The use of appendices is discouraged but if they are used, please refer to them as Appendix A, Appendix B, etc.

The Journal endorses full Harvard referencing style. Potential authors are strongly encouraged to consider the latest edition of the Chicago Manual of Style, before submitting their paper. The list of references should appear at the end of the main text (after any appendices, but before tables and legends for figures). It should be double-spaced and listed in alphabetical order by author’s name. Everything in the list of references should be cited in the text, with no discrepancies in the spelling of the authors’ names or in the date of publication. In the reference list, there are no quotation marks, no underlines, and no italics. The authors’ last names and first initials are used. Only the first word of an article title is capitalised. Book and journal titles take normal initial capitals. References should appear as follows:

For Monographs/Books:

Hunt, B. and D. Targett (1995), *The Japanese Advantage? The IT Battleground in Europe*, Oxford: Butterworth Heinemann in association with “Management Today”.

For Contributions to Collective Works (book chapters – edited volumes/conference proceedings):

Barsoux, J.-L. and P. Lawrence (1991), Countries, Cultures and Constraints in R. Calori and P. Lawrence, eds. *The Business of Europe: Managing Change*, London: SAGE Publications, 198-217.

For Journals:

Kornai, J. (1993), The Evolution of Financial Discipline under the Post-Socialist System, *Kyklos*, 46(3), 315-336.

For Unpublished material:

Bonin, J. P. and M. E. Schaffer (1995), *Banks, Firms, Bad Debts, and Bankruptcy in Hungary 1991-94*, CEP Discussion Paper No. 234, London: Centre for Economic Performance at LSE

For WWW material:

CATO Institute (1998), *Rita Gluzman, Petitioner v. United States of America, Respondent, Brief of Amicus Curiae the Cato Institute in Support of the Petition for a Writ of Certiorari to the United States Court of Appeals for the Second Circuit*, <http://www.cato.org/pubs/legalbriefs/gluzman.pdf> [accessed 15th March 2001]

Journal titles *should not* be abbreviated. Also, the location of the university or publisher must only be a city. Do not provide information on a county, state or a country.

Citations in the text and footnotes should include the surname of the author(s) followed by the year of publication in brackets, such as (Merton, 1986). If the author refers to a direct quotation, this should be given under quotation marks and page number should be provided, such as (Merton, 1986: 3). If there are more than three authors credited to a single publication, the reference is referred to as the first author's surname, followed by et al. typed in italic, whilst all the authors will be listed at the end of the paper in the list of references. For instance, (Merton, *et al.*, 1986). Note that where there are more than two authors, their names should be separated by commas and multiple parenthetical citations should be separated by semicolons.

Use commas in numbers with more than three digits (e.g., 1,234 vs. 1234). Per cents appear as 12.34 per cent (not 12.34%). In principle, avoid the use of symbols in the main text. Decimals are preceded by a zero, as in 0.1234 (not .1234). A number or percent at the beginning of a sentence is spelled out (e.g., "Forty-two of these firms are in the full sample...") but it is preferable to use a different construction (e.g., "The full sample includes 42 of these firms..."). Months and years are written without commas or apostrophes (e.g., 1980s, January 1990).

Any illustrations will be reproduced photographically from originals supplied by the author; the publisher will not redraw them. Please provide all illustrations in duplicate (two high-contrast copies). Care should be taken that lettering and symbols are of a comparable size. The illustrations should not be inserted in the text, and should be marked on the back with figure number, title of paper, and author's name.

Tables should be numbered consecutively in the text in Arabic numerals and inserted into the main text. However, they must also be printed on separate sheets and saved into separate files labelled appropriately in an understandable manner (table 1, table 2, etc.) when the final version of the accepted paper is submitted in electronic and hard copy to the Editor. The legends, axis labels, column and row labels and footnotes for all figures and tables should be clear enough so they are self-contained; that is, the content of the table or the figure must be understandable without reading the text of the article and authors should avoid describing the same material presented in the tables in the main text. Each table must have a title (at the top) followed by a descriptive legend. The source(s) of the table must be given below the table, following the word 'Source:' written in italic script (For example: 'Source: John, 1992, p. 23'). Authors must check tables to be sure that the title, column headings, captions, etc. are clear and to the point. All graphs and diagrams should be referred to as figures (e.g., Fig. 1), and should be numbered consecutively in the text in Arabic numerals. Illustrations for papers submitted as electronic manuscripts should be in traditional form.

The legends and captions for tables or figures should be complete enough that the table or figure can stand on its own. Large tables and graphs must be presented in landscape format, and tables should be typed in 9 pt script, while the main text is typed in 12 pt script. In particular, the TITLE AND LEGEND of the table or figure must describe the content of the numbers or symbols in the body of the table or the content of the figure. For example, a table legend that says “Descriptive Statistics” is unsatisfactory.

Equations in the text are indented on a separate line with the number of the equation right-justified. All equations are numbered, even if they are never referred to in the text. In general, equations are punctuated as normal parts of a sentence if the sentence continues after the equation, as follows:

Revenue, R is calculated as

$$R = P \cdot V \quad (1)$$

where

- P is the selling price, and
- V is the volume of sales in units.

Ensure that the letter “I” and digit “1”, and also the letter “O” and digit “0” are used properly, and format your article (tabs, indents, etc.) consistently. Characters not available on your word processor (Greek letters, mathematical symbols, etc.) should not be left open but indicated by a unique code (e.g., alpha, @, etc., for the Greek letter “alpha”). Such codes should be used consistently throughout the entire text and a list of codes should accompany the electronic manuscript. Do not allow your word processor to introduce word breaks and do not use a justified layout. Please adhere strictly to the general instructions below on style, arrangement, and, in particular, the reference style of the Journal.

Any manuscript that does not conform to the set instructions will be returned to the author(s) for necessary amendments before being sent to the referees.

Once the accepted paper is ready for going to print, the page proofs will be sent to the corresponding author. Proofs should be corrected carefully; the responsibility for detecting errors lies with the author. Corrections should be restricted to instances in which the proof is at variance with the manuscript. Each author will receive 5 reprints of his/her paper and a copy of the journal issue in which the paper has appeared. All the reprints will be sent to the corresponding author and he/she will be responsible for distributing reprints and copies of the journal to other co-authors.

Potential authors are strongly encouraged to consider the Journal of Financial Economics’ style guide as this promotes good academic writing. However, if there is an inconsistency between the above instructions and the JFE style-sheet, the authors should adhere to the above stipulated guidelines. JFE style-guide can be accessed via WWW at <http://jfe.rochester.edu>.