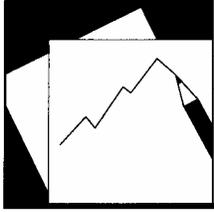


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## Small African Stock Markets—The Case of the Lusaka Stock Exchange

*Heloisa Marone*

**IMF Working Paper**

African Department

**Small African Stock Markets—The Case of the Lusaka Stock Exchange**

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**Abstract**

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In trend with a global pattern and following recommendations of the World Bank and the International Finance Corporation (IFC), the number of stock markets in African countries has increased dramatically over the last ten years. Despite a scarcity of studies on the impact of stock markets on these economies, some policymakers have been arguing in favor of stock exchanges (national or regional) in eastern and southern Africa. The creation of such exchanges may be a premature project as they might lack an actual economic rationale. The present case study, for instance, suggests that the Lusaka Stock Exchange (LuSE) has little effect on the larger Zambian economy.

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## I. INTRODUCTION

In trend with a global pattern and following recommendations of the World Bank and the International Finance Corporation (IFC), the number of stock markets in African countries has increased dramatically over the last ten years. Recently, some policymakers have been arguing in favor of a regional stock exchange in eastern and southern Africa. However, the impact of stock markets on economic development in these countries has not been extensively studied.

Recent studies on emerging markets suggest that although there is a *positive correlation* between stock market development and economic growth (see, for instance, Bekaert and Harvey (1998)), it is not clear whether a *causal nexus* exists and what shape it might take. Furthermore, the methodology usually adopted by these studies requires a certain quality and quantity of data that strongly bias them toward the study of countries with a high level of development; this implies that small African economies are usually outside such studies' ambit.

The present study of Zambia's Lusaka Stock Exchange (LuSE) attempts to fill some of this lacuna. It is based on information collected from a broad range of different data sources that include newspapers, magazine articles, and interviews with local investors and dealers at the LuSE. In utilizing such a variety of data, this study acknowledges the stock market's broader context. Clearly, it is not an institutional island: a stock market requires an economic, political, regulatory, and even social environment conducive to its growth.

The first part of the paper is a theoretical discussion of the role of stock markets in facilitating economic growth, with a special focus on small-scale economies. The second part comprises an empirical study of Zambia. It consists of an overview of the current and the historical development and functioning<sup>2</sup> of the LuSE and its value added to the local financial system and to the Zambian economy. The paper also discusses potential causes for the low liquidity on the LuSE.

My findings suggest that the LuSE has little effect on the broader Zambian economy. The conclusion briefly discusses the creation and development of a regional stock market.

## II. THEORETICAL DISCUSSION: THE ROLE OF THE STOCK MARKET IN THE ECONOMY

Theory suggests that the primary role of financial institutions and capital markets is to facilitate the allocation of resources in an uncertain environment across space and time (Merton and Bodie, 1995). The financial sector transfers funds from dispersed households

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<sup>2</sup> In other words, the study assesses the importance of the LuSE in the processes of resource allocation, economic growth, and privatization, and its role in mobilizing domestic savings and attracting private foreign investment.

and allocates them to dispersed entrepreneurs. In this manner, financial institutions and capital markets mitigate the effects of information and transaction costs and, in doing so, may affect saving and investment allocation decisions in ways that influence economic growth. Stock markets may play a number of different beneficial roles in the economy.

### **A. Mobilizing Savings**

Stock markets can be an effective way of pooling the savings of single households. Without a stock market, it would be costly for a firm to access multiple small investors to fund its projects. At the same time, stock markets may help to transform these several small savings into large investment projects. From the viewpoint of investors, they would, without pooling, have to buy or sell entire firms and would then be unable to diversify risk. Efficient stock markets may increase competition in the capital market, and they may also boost the volume of savings by providing investors with new alternative savings instruments that may better fulfill their liquidity, yield or/and risk requirements, or their time preferences.

In small economies, apart from the fact that the savings rate usually is notoriously low, it is not uncommon to find households allocating their resources to real or tangible assets, for example, cattle and food in excess of consumption and production requirements, precious metal, foreign currency, and unproductive land. Although these types of assets require maintenance and storage costs and may be susceptible to price fluctuations, relative to other type of assets they are liquid because they keep their intrinsic value even when facing monetary depreciations.

Better savings mobilization may increase the rate of savings: if efficient stock markets enable savings to be allocated to investment projects with higher yields, the rate of return to savers increases, making savings more attractive. A higher rate of return to stocks could also diminish the need for keeping national interest rates high in order to retain valuable domestic money invested inside the country. Hence, stock markets might ultimately contribute to lowering the cost of borrowing.

The amount of savings directed to a specific stock market will depend on a variety of factors such as investors' confidence in the performance and functioning of the stock market, the popularity of stocks as a type of investment, companies' willingness to offer shares to the public,<sup>3</sup> and the effectiveness of the institutions that are active in securities trading (e.g., mutual funds, investment trusts, or individual banks). The extent to which the branch

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<sup>3</sup> Some family-based companies may prefer raising funds through borrowing from banks or internal cash generation. Domestically owned companies may also be uncomfortable with offering shares to foreign shareholders.

networks of such institutions are equipped to reach fragmented and dispersed small investors is also important.<sup>4</sup>

## **B. Liquidity Risk**

In the presence of information and transaction costs, financial markets and institutions may ease the trading, hedging, and pooling of risk. There are two main possible risks to be considered: liquidity and idiosyncratic risk.

In an environment where liquidity shocks are not contractible, stock markets may help individuals to cope with liquidity risk through allowing them to respond to liquidity shocks by selling their shares to other investors. Liquidity<sup>5</sup> is, therefore, important in stock markets because it allows investors to sell their shares quickly and easily when the need arises. At the same time, stock markets transform these liquid financial instruments into long-term capital investments in illiquid production processes. Thus, markets help to insulate firms against uncertainties about potential premature liquidations by their creditors. Such uncertainties may discourage firms from investing in high-return projects that require a long-run commitment of capital. Liquid secondary markets, where investors know that they can sell their shares any time without experiencing significant changes in prices, may thus enable and encourage long-gestation production technologies that require firms to have permanent access to the capital initially invested.

Lack of liquidity is a serious impediment to the efficient functioning of stock markets. Lack of liquidity may be caused by the dominance in the market of a small number of firms or individuals, which, in turn, may result in the manipulation of stock prices, keeping them artificially low or high. Such problems can also result in the loss of public confidence in capital markets, leading to reduced participation by the public.

In small economies, the paucity of listed firms and the small volume of domestic savings tend to result in low liquidity on local exchanges. The number of listed firms is small perhaps because the number of firms in a position to issue shares to the public is usually fairly small in these economies. Some exchanges operate special markets in which small

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<sup>4</sup> Calamanti (1983) stresses that in the countries she studied small and medium-sized investors typically face serious constraints on their access to stock markets because they are less likely to live near the main financial centers, where the stock exchange, banks, and brokers are located.

<sup>5</sup> Markets are liquid if transactions of a large size can be made instantaneously and continuously without moving the price significantly.

firms can offer their shares to the public to mitigate this problem. In 1995, for example, the London Stock Exchange opened the AIM, a global market for smaller, growing companies.<sup>6</sup>

### C. Idiosyncratic Risk

Stock markets may also help investors to diversify firm-specific risks. If investors have limited means to diversify their portfolios, they may avoid equity stakes altogether because they are too risky. Hence, corporations find it difficult to raise equity capital, and they may find themselves forced to choose inefficient and low-risk projects in order to attract (risk-averse) investment capital. However, if stock markets have the ability to diversify risk, then entrepreneurs may have the chance to try out innovative and risky projects and technologies without losing investment capital.

The paucity of companies listed in stock markets in small economies makes these markets highly risky, as the ability for (domestic) investors to diversify is severely circumscribed.<sup>7</sup> If the risk of holding stocks is too high, risk-averse investors will want high returns in compensation for the risk of holding stocks. This implies an increase in the cost of capital, which may dissuade firms from selling shares as a way of raising funds.

### D. Information

Apart from overcoming the transaction costs associated with collecting savings, efficient stock markets may also reduce the costs of information. They may do so through the generation and dissemination of firm-specific information that efficient stock prices reveal. Stock markets are efficient if the stock price incorporates all available information. Reducing the costs of acquiring information facilitates and expedites the acquisition of information about investment opportunities and thereby improves resource allocation.

Many studies, however, question the idea that stock prices are able to reveal firm-specific information. Grossman and Stiglitz (1976), for instance, argue that, if prices revealed all information, no one would have the incentive to collect information. Consequently, only free information would be reflected in prices. One implication would be that, except for liquidity constraints, no trading should be done since individuals will trade only if they disagree about the price of a specific share.

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<sup>6</sup> There are no specific criteria for companies to qualify for the AIM. Once admitted to the AIM, a company has certain ongoing disclosure requirements, and it needs to retain a nominated adviser at all times. Ordinarily, once a company has been on the AIM for two years, it will have the opportunity to seek admittance to the main market by using a special expedited procedure (<http://www.londonstockexchange.com>).

<sup>7</sup> Domestic investors tend to have more limited access to international capital markets than foreign investors do.

### **E. Corporate Control**

If stock prices reveal information about firms efficiently, stock markets may promote corporate control, as they, for instance, allow owners to link managerial compensation to stock prices.

Although linking stock performance to manager compensation helps to align the interests of managers with those of owners, this is not sufficient to guarantee accurate accounting reports. Recently, inaccuracy in accounting reports appears to have become a serious issue, even in developed financial markets.

Stock markets can also promote better corporate control by easing takeovers of poorly managed firms. If management is not doing a good job, the stock price of the firm should decline below the potential value of the firm's assets. Such a firm is then a takeover target for investors, who will increase the value of the shares by replacing the current management. Clearly, the mere threat of takeover should deter managers from taking actions that would decrease profitability.

In stock markets of small economies, however, the typical lack of liquidity, compounded by often inadequate government regulation and lack of transparency and/or discipline in accounting practices, increases noise and price volatility which, in turn, diminishes the efficiency of prices as signals of firm-specific information. Consequently, it is hard for managers' performance to be evaluated.

### **F. Summary**

The paper has so far outlined some of the main potential contributions of stock markets to financial and economic development. It has also pointed to some of the general impediments that stock markets in small economies might face and that might prevent these markets from fulfilling the expectations one may pin on stock markets.

Much of the existing discussion of stock markets in small economies is concerned not as much with the contribution of stock markets to economic and financial development, as with the narrower question of whether stock markets exist, are functioning, and growing in size. As to the larger question, there is no conclusive verdict about the role stock markets play in the financial and economic development of small economies. Some commentators, however, are skeptical. Singh (1999), for instance, argues that the development of stock markets in many African countries at their current stage of economic development is costly and largely irrelevant. He argues further that some African countries would do better if they used their scarce human, material, and institutional resources to improve their banking system rather than attempt to promote the development of stock markets. One has to consider, therefore, that the extent to which a stock market can contribute to development depends on the structure and efficiency of the financial system, the nature of a particular economy, and specific issues confronting an economy at a particular time.

### III. EMPIRICAL STUDY: ZAMBIA'S LUSAKA STOCK EXCHANGE

#### A. Small Economies in Sub-Saharan Africa

It would be impossible to understand fully the functioning (or malfunctioning) of stock markets in some African countries without considering the broader economic, social, and political context.

In many sub-Saharan African countries, political instabilities and, in some cases, armed conflicts, the effect of the HIV/AIDS, malaria, and cholera pandemics on the productive capacities, and the underutilization of inputs and appropriate agricultural techniques severely disrupt the ability of these economies to promote the creation of resources. This makes allocation—and the role of the stock market in it—not the primary concern. Moreover, investor interest in a particular economy is also clearly affected by broader indicators. In a 1992 report on investment in emerging markets, Shearson Lehman Brothers pointed out that the best-performing markets of the developing world have been those which are rich in human resources: healthy and literate individuals are seen as productive workers and aspiring consumers.

Besides difficult social, political, and economic conditions, most sub-Saharan African countries also face problems related to the practical functioning of their stock markets.<sup>8</sup> These include a lack of liquidity, the limited number of trading hours, and the small number of listed companies. Even when the stock market succeeds in performing some of the functions outlined in the previous section, one would have to assume that the benefits for the overall economy are small as they are restricted to few and exclusive sectors of the economy. This is partly because the majority of the people in these economies are unable to save or invest. According to a report from the United Nations Conference on Trade and Development (UNCTAD), almost nine out of ten people in Africa's poorest countries live on less than two dollars a day, and two-thirds survive on less than one dollar a day.

All this suggests that the creation and development of stock markets in the region may still be a premature project. The present part of the study discusses these issues in the context of a specific case study of the Zambian economy and the Lusaka Stock Exchange.

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<sup>8</sup> The following is an illustration of the hurdles a potential investor might face in attempting to obtain information on the Lusaka Stock Exchange (LuSE) and its listed companies: while in May 2002 a large amount of data on trading activity was available on the LuSE webpage (<http://www.luse.zamnet.zm>), this page has not been accessible between the end of May 2002 and the time of writing (September 2002).

## **B. The Lusaka Stock Exchange**

### **Brief history**

The Lusaka Stock Exchange (LuSE) was established with preparatory technical assistance from the International Finance Corporation (IFC) and the World Bank in 1993. The exchange opened on February 21, 1994. In the first two years of operation, the LuSE and the Securities and Exchange Commission (SEC) were funded by the United Nations Development Program (UNDP) and the government of Zambia as a project for financial and capital market development in Zambia.

The creation of the LuSE was directly linked to a broader economic reform package and the liberalization of the Zambian economy that began in the early 1990s. A stock exchange was viewed as pivotal to the success of the privatization program. As observed by Mwenda (2001), the development of the LuSE was not led by the expansion of the industry or by an increase in the issue of securities of a long-term or permanent nature, as was the case with the London Stock Exchange, for instance. In fact, prior to the parastatal privatizations, the private financial sector in Zambia was not very active in providing equity finance. The state was the main provider of corporate finance to parastatal companies.

Uncertainties regarding the financial viability of some of these parastatals posed an obstacle to the privatization process in Zambia, adding to the liquidity problems and the shallow market depth of the LuSE. According to the World Bank and the IMF staff estimates, the public bought less than 40 percent of the 30 million ordinary shares of Pamodzi Hotels offered in November 2001, for instance. The bulk of shares that did not find buyers found their way back into government hands by way of the Zambia Privatization Trust Fund (ZPTF).

### **Structure**

The LuSE is regulated by the 1993 Securities Act, which also created the Securities and Exchange Commission (SEC) to enforce the act. The LuSE is incorporated as a limited liability company owned by its broker members. Government grants, brokers' commissions, fees paid by companies that want to list their shares, and subscriptions fees for the economic reports produced by the LuSE cover the LuSE operational costs.<sup>9</sup> To participate in the Zambian securities market, the first requirement is to incorporate as a company and thereafter apply with the SEC for qualification as a licensed dealer. Licensed dealers are qualified to provide financial advisory services to issuers and investors. To buy or sell securities on behalf of clients (secondary market trading), licensed brokers apply for membership in the

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<sup>9</sup> Given the small number of trades, the low frequency of the reports, and the small number of listed companies, it is very likely that government grants play a major role in the funding of the LuSE's operational costs.

LuSE. The LuSE is, therefore, a broker-dealer market in which broker members have dual capacities, acting as agents (brokers), as well being qualified to act as principals (dealers) for their own accounts (see the *Bridge Handbook of World Stock, Derivative and Commodity Exchanges*, 2000 and 2001).

The LuSE has a two-tier market structure. The top tier is for (listed) companies that meet the criteria for a full listing.<sup>10</sup> The second tier is for (quoted) companies that do not meet the full listing requirements; they may nonetheless trade on the exchange. There are two types of shares: the free float (or public) shares, which are available to the public, and the nonpublic shares, which are not available to the public and are held by the majority shareholders.

Government bonds began trading on the exchange in March 1998. There are no exchange controls, no restrictions on shareholding levels and foreign ownership, no capital gains taxes, and no property transfer tax on listed securities. There is a withholding tax of 15 percent on dividends that are treated as income, and a 2.5 percent property transfer tax (levied on the seller) for unlisted securities. Finally, corporate income tax is reduced from 35 percent to 30 percent for companies *listed* on the LuSE (*quoted* companies do not receive any tax incentives).

### **Aggregate performance indicators**

Table 1 shows an overview of the LuSE's value and its trading activity for the period from 1994 until 2001. It comprises public and nonpublic shares, including transfers of shares between connected parties.

Total market capitalization has been falling since its peak in 1997, both in absolute terms and relative to GDP. The small importance of the value of the companies in the LuSE

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<sup>10</sup> Five requirements must be met before firms can distribute equity or debt to the public. First, the applicant company (issuer) must be incorporated in Zambia as a public company. Second, the securities must be registered under Part V of the Securities Act 1993. Third, the applicant company should have a trading record of at least three years under one management. The exchange may accept a shorter period in exceptional cases. Fourth, there must be an adequate market in the securities and sufficient public interest in the business of the issuer. Finally, there must be an open market in the securities. This is determined by either of the following decision rules: the minimum percentage of securities in public hands must be 20 percent, with a minimum of 100 shareholders, or the greater value of the issuer's market value or shareholders' funds must be not less than K 2,000 million, with not less than 2,000,000 shares held by a minimum of 1,000 shareholders. The securities for which listing is sought must be freely transferable.

relative to GDP (less than 8 percent of GDP in 2000 and 2001)<sup>11</sup> raises doubts about the actual contribution of the LuSE to the Zambian economy.

Table 1. LuSE Aggregate Performance Indicators, 1994-2001

Year	Number of Trades	Volume of Shares (in US\$ million)	Turnover Ratio (in %)	Market Capitalization (in US\$ million)	Market Capitalization to GDP (in %)	Price to Earnings Ratio
1994	977	0.37	...	...	...	...
1995	898	0.23	0.05	436	12.60	...
1996	1,376	2.64	1.15	229	7.00	6.74
1997	3,741	8.77	1.24	705	18.03	9.66
1998	3,772	3.56	1.18	301	9.29	5.25
1999	1,923	13.35	4.77	280	8.95	5.79
2000	1,836	6.09	2.58	236	7.28	11.38
2001	2,141	48.77	19.66	248	7.73	6.88

Source: Lusaka Stock Exchange.

According to the World Bank and the IMF staff estimates, almost all trading activity on the LuSE consists of "forced trading" (an SEC-licensed dealer must necessarily direct all trading in public companies through the LuSE) associated with corporate restructurings. For instance, the remarkable increase in the number of shares traded, number of trades, and turnover ratio in 2001 was mostly the result of changes in ownership and mandatory offers in Zambia Sugar and in Chilanga Cement.<sup>12</sup> Of the number of total shares traded in the LuSE in 2001, 97.9 percent were shares of Zambia Sugar; another 1.4 percent were shares of Chilanga Cement.

### C. Why Is Liquidity Low on the LuSE?

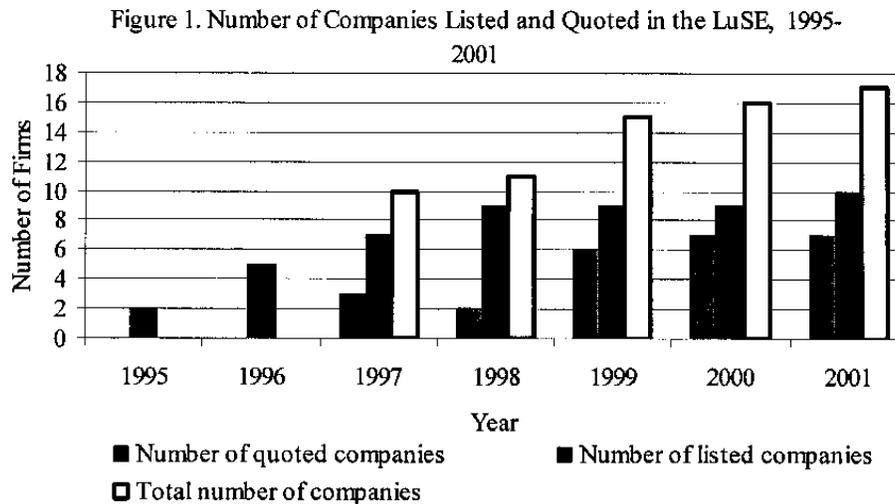
#### Supply of stocks

Low liquidity is one remarkable characteristic of the LuSE. Several distortions observed in both demand for, and supply of, stocks help to explain the low liquidity in this

<sup>11</sup> As an illustration, in Hong Kong SAR, Japan, the United Kingdom, and the United States, the total value of shares traded was, respectively, 42.5 percent, 95.6 percent, and 202.9 percent of the GDP in 1999 ([http://www.worldbank.org/data/wdi2001/pdfs/tab5\\_3.pdf](http://www.worldbank.org/data/wdi2001/pdfs/tab5_3.pdf)).

<sup>12</sup> After a change in ownership, the new majority shareholder has to send out a mandatory buying offer to give the minority shareholders a chance to sell their shares (personal communication with Situmbake Mubano, dealer at the LuSE, August 2002).

exchange. The small numbers of listed companies<sup>13</sup> and the small number of public stocks available are the main reasons for the low supply of stocks traded in the LuSE. Figure 1 illustrates that the number of listed companies in the market increased quite rapidly during the first three or four years of the LuSE's operation, while it has remained stable at about nine companies thereafter until 2001.



Source: Lusaka Stock Exchange.

One issue for discussion is whether the reduction from 35 percent to 30 percent in the corporate income tax in 1996 was sufficient to contribute significantly to the increase in the number of listed companies. Some argue that these incentives have not been enough to foster firms' participation in the LuSE. The LuSE's general manager, Lloyd Chingambo, for instance, believes that, if the government suspended corporate taxes for a time or cut them by 5-10 percent, this might help to jump-start the Zambian stock market.<sup>14</sup> Proposals for further tax cuts, however, have not been part of the government agenda. Considering the size of the informal sector,<sup>15</sup> one would expect the government's source of tax revenue to be heavily

<sup>13</sup> "The market [LuSE] despite the stellar performance has several short-comings. First and foremost, the market has an inadequate supply of shares. There is a critical shortage of stock which results in thin market trading. This has been of great concerns to the investors who want to buy in large quantities." (Pangaea Partners, 1997 LuSE).

<sup>14</sup> *The Post* (Lusaka), January 15, 2002. "Lusaka Stock Exchange Asks Government to Suspend Corporate Tax or Reduce It."

<sup>15</sup> Like in any other developing country, the Zambian informal sector is estimated to be substantial. More than 70 percent of the employed population is estimated to work in the informal sector (International Labor Organization, <http://www.ilo.org>; see also *The Times of Zambia* (Ndola), October 9, 1999, "Small Industries Key to Zambia's Growth").

reliant on large firms, which are traded in the LuSE. According to World Bank and IMF staff estimates, the tax incentive for listed firms had some effect in attracting banks, which would otherwise pay a 45 percent tax rate. It is true, on the other hand, that this tax incentive implies a cost for the government. One could argue that this cost is high relative to the benefit from the very modest number of shares made available to the public. Table 2 shows the percentages of shares of each listed company available to the public as of March 2002.

Although these ten listed companies comprised, in March 2002, a total market capitalization of US\$220 million, a few investors (mostly foreign multinationals) owned most of these shares. The total value of the public shares was approximately US\$27 million (12.3 percent of their market capitalization), or about 0.7 percent of GDP.

Table 2. Number of Shares Publicly Available (as of August 2002)

Listed Companies	Free Float (in percent)
British American Tobacco	25.00
Chilanga Cement	15.95
Farmers House	...
National Breweries	20.00
Pamodzi Hotels	10.00
Standard Chartered Bank	10.00
Trans Zambezi Industries	10.00
Zambia Sugar	10.87
Zambian Breweries	10.00
ZCCM	12.00

Sources: World Bank and IMF staff estimates

The LuSE is still extremely dependent on the government's creating incentives for participation in the market. Recently, the Minister of Finance, Emmanuel Kasonde, announced that the government would develop guidelines for institutions to invest in stock markets. In these guidelines, pension funds and other institutional investors would be required by law to direct a certain percentage of investment funds to the capital market.<sup>16</sup>

<sup>16</sup> *The Times of Zambia* (Ndola), March 5, 2002, "LuSE Hails 2002 Budget as Balanced," and *The Post* (Lusaka), April 10, 2002, "LuSE's Investment Guidelines for Institutions to Be Ready by June."

One could argue that such a policy could be extremely harmful to the interests of pensioners because investment managers would lose the freedom to choose a securities portfolio that they believe offers the best returns. The overall result could be that people save less in collective investment funds.

Such incentives may also not be targeting the major problem, namely, the small number of potential firms able to list their shares on the LuSE. The increase in the number of *quoted* (but not *listed*) companies after 1998 might indicate that few firms in the economy are able to meet the legal and accountancy requirements for a listed position. Most *listed* companies are former state enterprises that were privatized; the slow growth of the number of *listed* companies after 1997 may indicate that *feasible* privatization has already run its course.

Given the undeveloped lending sector, there is also little prospect that many new companies, that could boost listings, will be founded. Inadequate access to venture capital and the limited capacity of the lending sector are argued to be among the factors that have hindered the development of local business.<sup>17</sup> The lending sector in Zambia is still highly concentrated and dominated by banks<sup>18</sup> to which small and medium-sized entrepreneurs do not have access. In 2001, the banking sector comprised fifteen banks: one state-owned bank, four foreign banks, and ten privately owned local banks. The five largest banks, four of which are foreign owned, control 83 percent of total assets, 85 percent of total deposits, and 74 percent of total capital in the banking sector. The country's largest bank, which is foreign owned, controls 24 percent of total assets, 26 percent of total deposits, and 23 percent of total capital.

Other reasons should also help to explain the slow growth in the number of companies participating in the LuSE:

- The costs associated with "going public" may be an impediment for some companies. Once a firm is listed on the LuSE, it periodically has to provide shareholders and the public with information about its fundamentals. The decrease in costs associated with the reduction in corporate income taxes for

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<sup>17</sup> Compare, for instance, *The Times of Zambia* (Ndola), February 1, 1999 ("Why Local Traders Cannot Penetrate Global Market?") and the example of a recent successful venture-capital operation, Microlink. An Internet provider in Zambia, Microlink is partly financed by a US\$300,000 Norwegian Development Agency (NORSAD) loan after being assisted on a business plan by the Africa Project Development Facility (APDF). Microlink's chair, Ben Shoko, said that the company was looking forward to floating its shares on the stock exchange once it had been consolidated (*The Post* (Lusaka), November 9, 2001, "Developing Countries Have No Choice over E-Commerce.")

<sup>18</sup> According to IMF staff estimates, the total assets of all banks are approximately 26 percent of the estimated GDP for the year 2000.

listed companies may not be enough to offset the increase in costs associated with fulfilling such requirements.

- The flat demand for stocks and the lack of underwriting activity<sup>19</sup> may discourage firms from choosing the LuSE as a way to raise financial capital.
- There are a significant number of family businesses in Zambia that might be averse to the idea of "going public."<sup>20</sup>

### **Demand for stocks**

The number of investors trading on the LuSE is very small,<sup>21</sup> making trading on this exchange not very competitive and stock prices excessively volatile.

### ***Foreign and domestic investors***

Although foreign investors do not trade as frequently as domestic investors do, the size of their average trades is much larger (Tables 3 and 4). One reason is that single foreign investors tend to be the majority shareholders in most if not all of the listed and quoted companies in the exchange.<sup>22</sup> Judging by the number of trades, there are also very few foreigner investors "trading" on the LuSE.<sup>23</sup>

Figure 2 shows the ratio of the total value traded of the stock of single companies to the total value traded on the LuSE for the period from 1997 until 2001. It also breaks down trading by domestic versus foreign investors. The companies listed in Figure 2 are as follows:

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<sup>19</sup> Underwriting is a commitment by the underwriter to subscribe for that portion of shares not bought by the public.

<sup>20</sup> Calamanti (1983).

<sup>21</sup> "The number of trades decreased dramatically in 1999. There were a total of 1,922 trades over the course of the year, down by 49 percent from 1998. This was primarily due to limited buyers in the market throughout the year. ...While turnover increased to K 33 billion, up by a staggering 296 percent over 1998, K 29.5 billion, or 89 percent of the increase, came from a single trade. In May 1999, South African Breweries (SAB) purchased Anglo American's 45 percent shareholding in Zambian Breweries Plc." (Pangaea Partners, 1999).

<sup>22</sup> Personal communication with Mr. Situmbake Mubano, dealer at the LuSE (August 2002).

<sup>23</sup> Majority shareholders trade shares that are not publicly available (the value of these shares corresponds to around 90 percent of the value of the company). The deals (amount and price) are negotiated before the trading takes place on the LuSE (e.g., Zambia Sugar, in 2001). Transactions of shares of companies listed on the LuSE must by law be realized at the LuSE, even if the exchange does not play any role as an intermediary.

BATA – Zambia Bata Shoe Company Plc  
 BATZ – British American Tobacco Plc  
 CHUL – Chilanga Cement Plc  
 FH – Farmers House Plc

NATBREW – National Breweries Plc  
 NCBNK – New Capital Bank Plc  
 RTHZ – Rothmans of Pall Mall Ltd  
 SCZ – Standard Chartered Bank Zambia Plc

TZI – Trans Zambezi Industries Plc  
 ZAMBREW – Zambian Breweries Plc  
 ZCCM – ZCCM Investments Holdings  
 ZRC – Zambezi Ranching and Cropping  
 ZSUG – Zambia Sugar Plc

Table 3. Total Number of Trades per Month, 1997-2001

	1997		1999		2000		2001	
	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic
January	10	168	9	221	10	127	No Trading	112
February	36	121	24	92	24	136	2	80
March	13	188	22	147	14	155	11	96
April	23	171	10	78	4	65	2	67
May	38	111	3	140	12	153	198	238
June	60	312	8	243	6	121	12	348
July	26	312	No Trading	161	5	103	6	139
August	36	279	34	208	3	205	19	186
September	74	319	3	117	5	133	4	211
October	58	440	9	95	12	251	7	153
November	54	385	10	129	9	169	6	114
December	34	473	8	134	9	95	8	122

Table 4. Average Value of Each Trade per Month, 1997-2001 (in Millions of kwacha)

	1997		1999		2000		2001	
	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic
January	5.10	0.43	3.12	0.25	1.49	0.29	No Trading	0.36
February	8.28	3.04	3.98	0.93	55.68	0.25	33.37	0.34
March	0.54	0.15	32.22	0.79	65.82	0.99	28.35	2.77
April	34.12	0.51	1.65	0.46	0.47	0.56	17,140.75	0.17
May	1.45	0.54	4,940.88	106.16	24.24	1.60	125.01	16.31
June	8.39	1.63	1.34	0.30	173.09	9.11	1,215.15	28.68
July	179.62	0.72	No Trading	0.89	2.39	0.30	6.82	0.52
August	1.20	0.69	7.52	0.19	0.13	0.24	9.81	0.23
September	10.02	3.92	1.16	0.22	3,595.09	2.05	4.31	0.66
October	13.59	0.56	6.76	1.79	13.73	1.02	4.78	0.57
November	2.66	0.53	28.92	2.54	0.16	0.58	11,118.26	0.36
December	1.63	0.43	91.06	0.27	128.24	0.67	4,263.36	1.21

Source: Lusaka Stock Exchange.

Note: No data available for 1998.

Figure 2. Share in Total Trading Value by Company and Investor Category, 1997 - 2001  
(in percent)

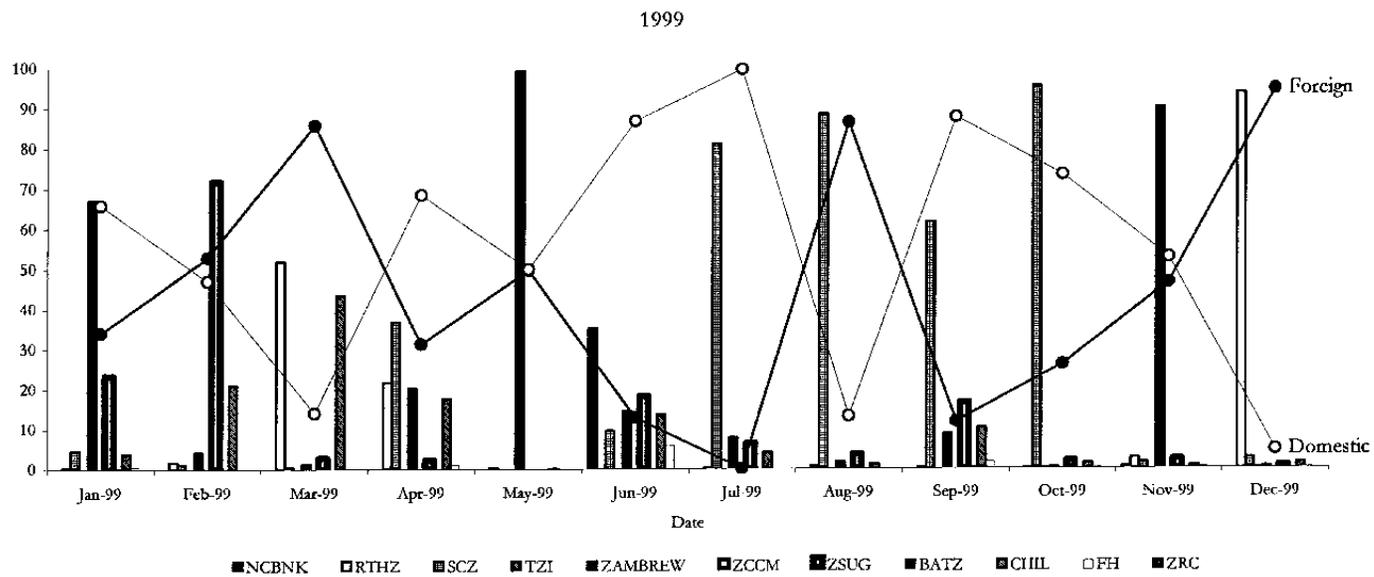
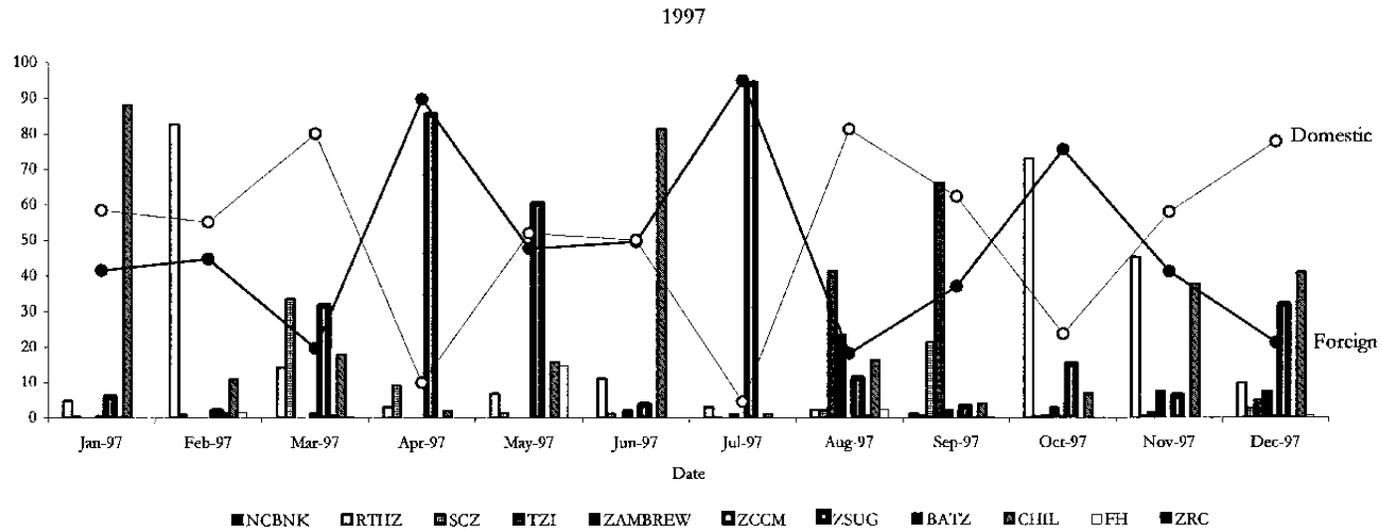
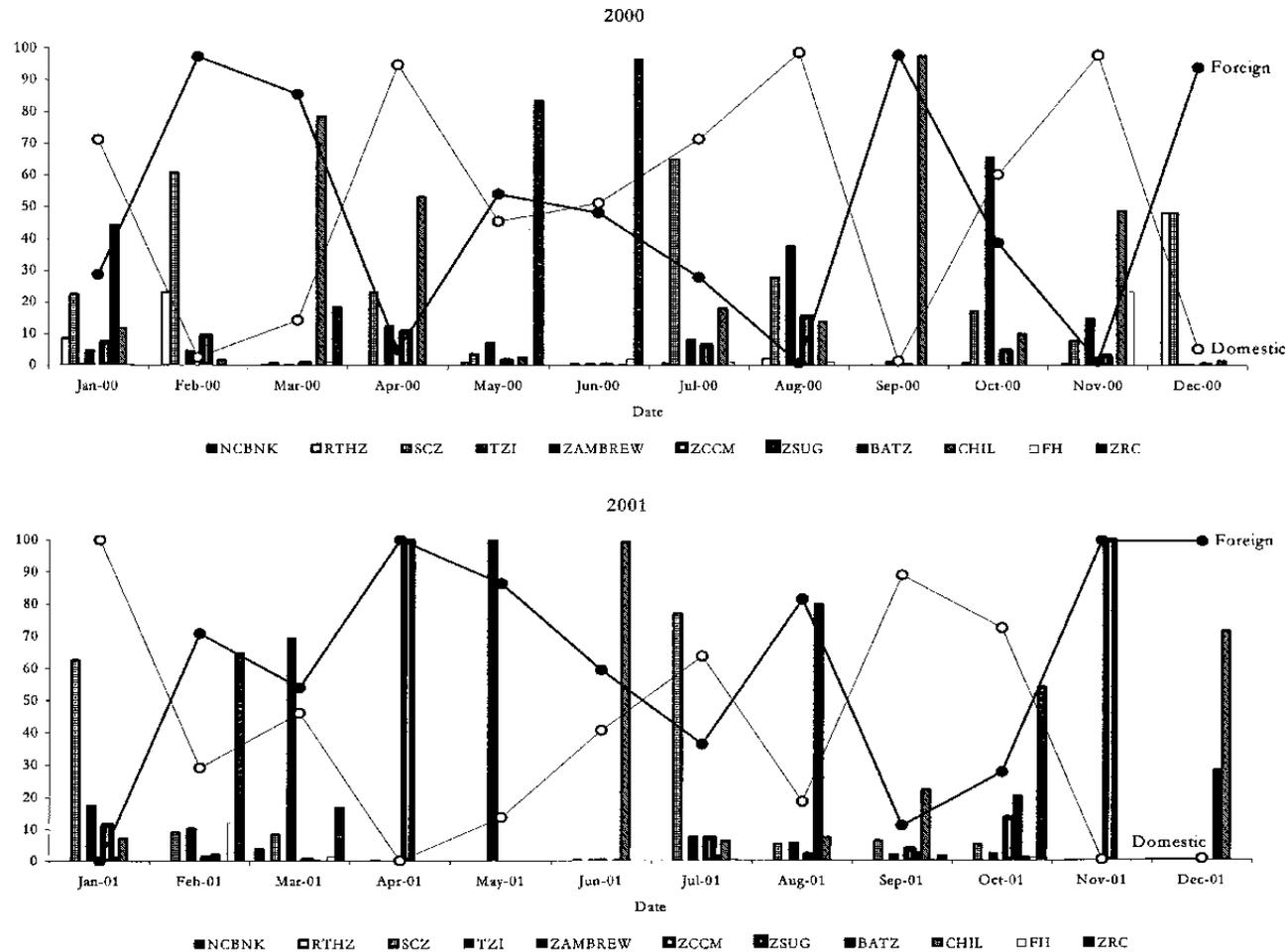


Figure 2. Share in Total Trading Value by Company and Investor Category, 1997 - 2001 (concluded)  
(in percent)



Source: Lusaka Stock Exchange.

Notes: No data available for 1998. See page 16 for the full names of the companies.

The higher the participation rate of domestic traders, the greater is the spread of the total value of trading over different companies. This does not necessarily mean that domestic investors individually hold more diversified portfolios than foreign investors. Domestic *trading*, however, is more diversified. It may be noted that, compared with the shares of other companies, the shares of the three largest companies by market value (ZCCM, SCZ, and TZI)<sup>24</sup> are rarely traded.

### *Savings rate*

The relatively low level of stock market participation, especially by domestic investors, can be partially explained by the low rate of domestic savings, the lack of institutional investors, such as pension funds and mutual funds, the low rate of return from holding stocks, compared with holding riskless assets, and the poor performance of listed companies.

One of the main factors that impedes the mobilization of domestic savings by the LuSE is the low level of general savings in the economy. If total savings are very small, there is little a stock exchange can do in allocating them, and this is quite independent of the legal and technological level of sophistication of the exchange.

Figure 3 shows the annual ratios of gross domestic savings and public and private savings to GDP in Zambia. It is important to note that these numbers are approximations: they should not be taken to be able to indicate more than a general trend.

The public savings rate, which corresponds to the ratio of government revenue, minus government consumption, to GDP, has shown a steady increase since 1994. We could attribute this increase in public savings to the privatization of parastatals; privatization may both increase revenue and decrease expenditure. It was facilitated by the creation of the LuSE in 1994. As an illustration of the burden some parastatals placed on government finances, in 1999 two Zambian mines, Nkana and Nchanga, were costing the government US\$1-2 million per day—reflecting in part the low level of world copper prices.<sup>25</sup>

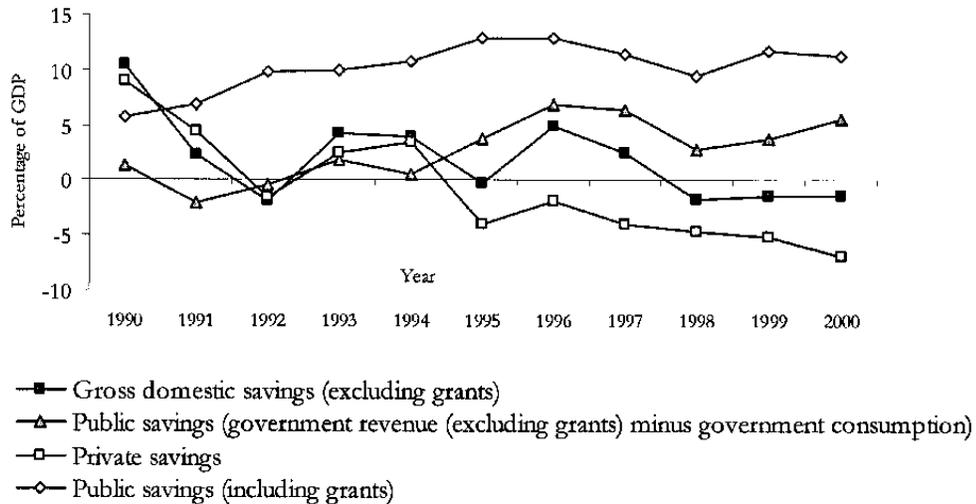
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<sup>24</sup> As of end-2000, these three companies alone make up approximately 83 percent of total market capitalization (Mondo Visione, 2001).

<sup>25</sup> *The Times of Zambia*, February 5, 1999, "Mine Jobs Up For Grabs." The privatization of some of the parastatals did not contribute to the government revenue as much as to the cut of expenses. This was in part because some privatization deals were in fact not straight divestments of government assets; rather, they were structured to include elements of asset swaps. For instance, the Zambian government agreed to sell the Nchanga and Konkola Copper Division and the Nampundwe pyrite mine to the South African-based industrial conglomerate Anglo-American Corporation (AAC) in October 1999 for US\$90 million (US\$30 million in cash plus US\$60 million to be paid over three years). In a related deal, the AAC agreed to sell to the government its 27.3 percent stake in its subsidiary, the Zambia Copper Investments (ZCI), for US\$30 million.

The private savings rate in Zambia, excluding grants, has been steadily decreasing. Low earnings, the high cost of living, and a decrease in life expectancy are some of the factors that contribute to this decline.

Figure 3. Domestic Savings in Zambia, 1990-2000



Source: IMF staff estimates.

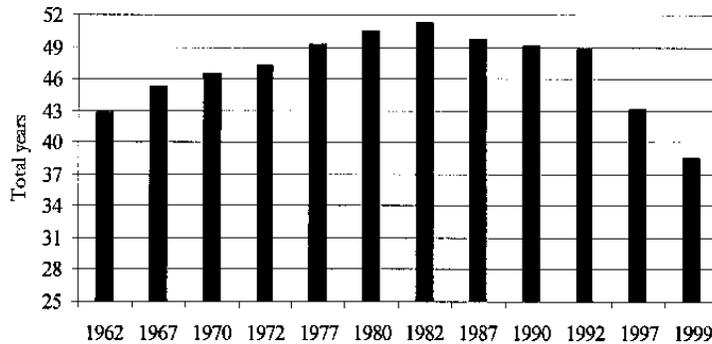
In Zambia, earnings levels are in general very low. Based on estimates from the World Bank's Research Group in 1996, approximately 72.6 percent of the population lived on less than one dollar and around 91.7 percent on less than two dollars per day. Clearly, if the average income is low, both the total volume and the rate of savings will also be low, as meager earnings go to consumption.

High interest rates, high inflation, and an overvalued and unstable exchange rate are also blamed for the high cost of living and, therefore, for the decrease in the potential disposable income available for savings.<sup>26</sup> The rate of change has been declining since the beginning of the economic reforms in the early 1990s, but it still stands at above the 20 percent level, owing, in part, to rising input costs related to the weakening of the kwacha.<sup>27</sup>

<sup>26</sup> Interview with Mr. Peter Yuyi, manager, securities brokerage, emerging markets' securities, Lusaka, December 18, 1996 (Appendix E in Mwenda (2001)).

<sup>27</sup> Citibank's Country Treasurer Ignatius Chicha said "the price of most foodstuffs and fresh farm and processed products are slowly going up as suppliers and traders make adjustments to reflect rising costs of inputs," *The Post* (Lusaka), July 8, 2002, "Inflation Target of 13% Getting Out of Government's Grasp."

Figure 4. Life Expectancy at Birth, 1962 - 1999



Sources: World Bank, *Global Development Finance* and *World Development Indicators*.

Finally, there is little one can do, in term of financial incentives, to foster private savings if the average person in Zambia is expected (at birth) to live less than 40 years. Figure 4 shows the average life expectancy at birth in Zambia for the available years between 1962 and 1999. In more recent years, this average has been declining, owing, in part, to the incidence of the HIV/AIDS epidemics.<sup>28</sup> Life expectancy has now fallen back below the levels prevalent in the early 1960s.

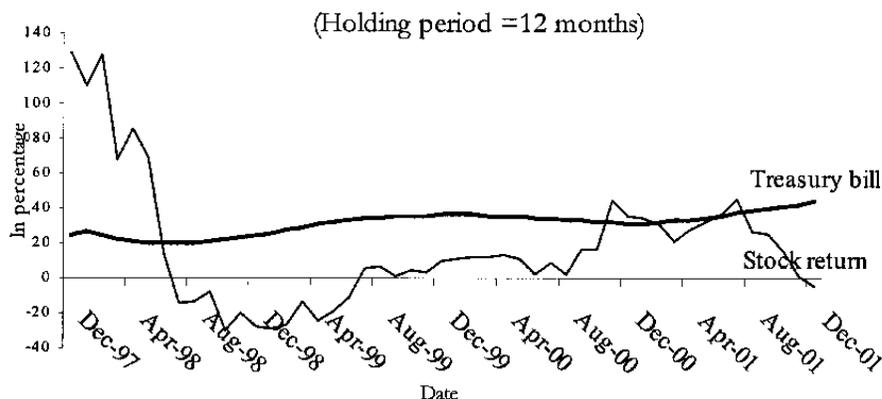
### ***Returns on stocks***

Given the high return on treasury bills, it is more attractive to invest in such a less risky asset than in more risky stocks in Zambia. Figure 5 shows returns that could be earned by holding treasury bills and by holding equally weighted shares from the LuSE composite index (this excludes the mining sector) for a 12-month periods, from December 1997 to December 2001.<sup>29</sup> Since mid-1998, the return from holding stocks has been significantly lower than that from holding treasury bills.

<sup>28</sup> The full extent of the HIV/AIDS pandemic in Zambia is not fully known as statistics are not reliable. At the end of 1999, it was estimated that 20 percent of adults were living with HIV/AIDS (U.S. Census Bureau, Joint UN Program on HIV/AIDS (UNAIDS), Population Reference Bureau, and World Health Organization).

<sup>29</sup> While they are apparently quite attractive, treasury bills require a minimum amount for investment, which limits domestic direct participation in this market. Banks are the main holders of treasury bills, and this explains their high profit margins: lending to the government is well rewarded while borrowing from the public is very cheap (deposit rates are very low).

Figure 5. Returns on Stocks (All Shares) and Treasury Bills, December 1997- December 2001



Source: Lusaka Stock Exchange.

### ***Poor performance of listed companies***

There is also only very limited interest from domestic and foreign investors in buying shares of companies traded in the LuSE, either because these companies are unprofitable or because, again, the return is too low to compensate for the risk of holding their shares.

In the beginning of 2002, for example, Anglo-American, the majority shareholder in Konkola Copper Mines (KCM), reconsidered its involvement in the company and announced that it was pulling out of Zambia. One of the main reasons was the inflation to US\$1 billion of the initial estimated investment of US\$300 million in the Konkola Deep Mining Project in a period of 18 months; this inflation was due to the adverse effects of the global economic slowdown, the low copper prices, and some unexpected operational difficulties.<sup>30</sup> A major issue that arose in connection with Anglo-American's decision was the lack of potential buyers.<sup>31</sup> This created the specter of the government's having to reassert operational control over the mines to

<sup>30</sup> *The Post* (Lusaka), January 27, 2002, "Anglo's Decision Over KCM Worries World Bank." *Miningweb* (Johannesburg), February 21, 2002, "Lusaka Copper Will Jolt Its Suitors."

<sup>31</sup> "Analysts said later that it was extremely unlikely that any other company would like to take over, even if some more low cost loans or grants were available". (*Miningweb* (Johannesburg), January 24, 2002, "Anglo Warns of More Copper Pain.")

avoid the disintegration of a sector responsible for 4.1 percent of GDP in 2000 and accounting for approximately 66.6 percent of foreign exports in the same year.<sup>32</sup>

### *Institutional investors*

In developed financial markets, most stocks owned by private investors are not held directly, but through pension funds and mutual funds. Most countries in sub-Saharan Africa have few or no such institutions that generate long-term savings and channel them into stock exchanges. Given low earnings and savings rates, such institutions might simply be lacking a customer base.

In Zambia, such issues are compounded by a general lack of investor confidence in collective investment funds. Many investors experienced financial losses with the collapse of the Meridien Property Fund in early 1995.<sup>33</sup> This problem persists even though<sup>34</sup> SEC has been working to strengthen the protection of fund investors by enforcing existing regulations that require fund managers to register funds.<sup>35</sup>

There are voices that argue that collective investment schemes could make the market more competitive and increase the volume of trade, as they would facilitate the participation of a larger number of independent buyers and sellers. Charles Mate, Chief Executive of the LuSE in December 1996 (Appendix A in Mwenda (2001)) cites the August 1994 introduction of the Meridien Collective Investment Schemes (MCIS) as an example of the importance of collective investment funds in the trading activity of the LuSE. Mate attributes the increase in the number of shares traded after August 1994 to the introduction of the MCIS on the LuSE in the same period. He adds that the collapse of the market in the early 1995 was mostly related to the surfacing of Meridien's problems at that time.<sup>36</sup>

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<sup>32</sup> 'If Anglo or any other member pull out of Zambia, the government would have to take up their shares, but does it have the money to do that?' (Citibank's Zambia Country Treasurer Ignatius Chicha, *UN Integrated Regional Information Networks*, January 25, 2002, "Copper Blow.")

<sup>33</sup> See footnote 37 below.

<sup>34</sup> However, according to the World Bank and the IMF staff estimates, the SEC appears as a debtor in the LuSE 2001 *Annual Report*, an unsatisfactory position for a regulator.

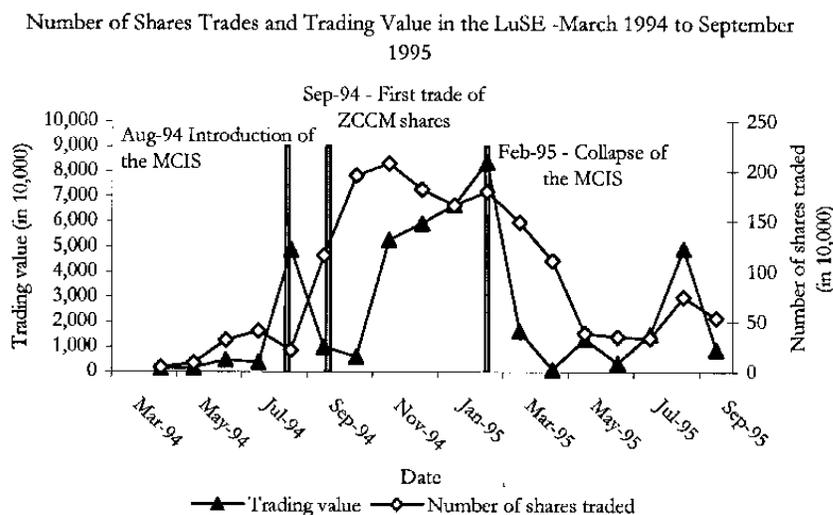
<sup>35</sup> *The Times of Zambia* (Ndola), December 28, 1999, "SEC Seeks Legal Powers."

<sup>36</sup> One could argue, however, that the increase in trading activity in August 1994 was in fact due to the flotation of shares of the ZCCM (Zambia Consolidated Cooper Mines Ltd.) in September 1994 (Mwenda, 2001, p. 287). The collapse of the Meridien group in 1995 might have lowered overall trading activity by negatively affecting investor confidence rather than through the channel suggested by Mate, i.e. that there was a decrease in the volume of savings channeled

In the past few years, there have been some public and private efforts to promote the creation of new collective investment funds. In 1999, there were plans to transform the Zambia Privatization Trust Fund into the Zambia Equity Fund.<sup>37</sup> The Minister of Finance, Katele Kalumba, also referred to the Zambia State Insurance Corporation (ZSIC) and the National Pension Scheme Authority (NAPSA) as "pension schemes" that had ideal structures for mobilizing savings and attracting domestic investment.<sup>38</sup>

More recently, in 2002, the African Banking Corporation (ABC) started work on introducing a form of direct debit of employees' income for onward investment in unit trusts of large companies in Zambia. The ABC plans to offer three types of unit trusts: equity-based funds, where the manager invests in a company's equity; cash-based funds, which represent money market investments of less than three years, pay interest, and are less volatile than the equity-based funds; and, finally, property-based funds, where funds are invested in unlisted properties and returns consist of income from rentals and capital appreciation of property. The minimum investment required is envisioned to be considerably lower (K 20,000 in April 2002)

into the exchange because of the collapse of a collective investment scheme. The figure below shows the number of shares traded and the trading value on the LuSE from early 1994 to mid-1995:



Source: Pangae/EMI Securities ([www.pangaepartners.com](http://www.pangaepartners.com)).

<sup>37</sup> *The Times of Zambia* (Ndola), August 23, 1999, "Unit Trusts: AAC Warns."

<sup>38</sup> *Ibid.*, August 20, 1999, "Minister Kalumba Issues Directive."

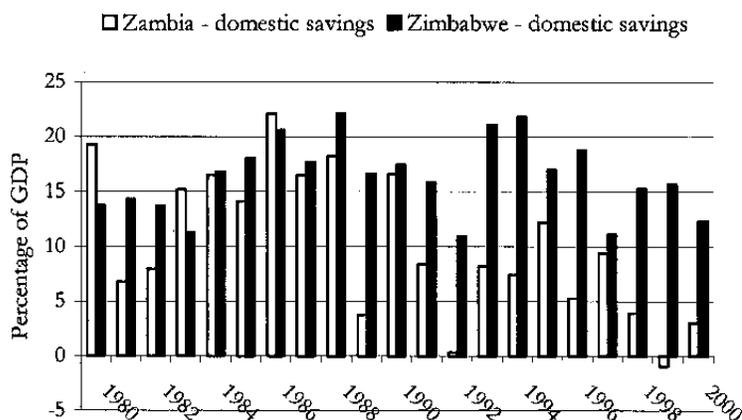
than is the case with existing funds; the ABC is consciously targeting a broader market comprising teachers, nurses, and other lower- and middle-income earners. These unit trusts have started to operate (but they are not publicly listed) on the back of a successful performance of a unit trust in Zimbabwe,<sup>39</sup> whose yield is comfortably in excess of the rate of inflation in 2001. However, the ABC's Zambia Managing Director, Abdul Munshi, is cautious about listing on the LuSE in the immediate term because the market may not be sufficiently developed.<sup>40</sup>

#### IV. CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH

The LuSE appears to be making little if any contribution to the Zambian economy. Moreover, the study suggests that the LuSE's failure to foster economic development in Zambia is mainly a function of the overall weak economic environment and less a function of the legal and technical constraints on the exchange, as suggested in Mwenda (2000). There are little or no savings to be allocated to the few existing firms. Savings are low because earnings are low and because Zambians can expect to live for only 38 years. Those who can afford to save will search for better returns and a safer portfolio of investments. Excess returns of holding stocks (over a 12-month period) have been negative during the 1998-2001 period. Given such constraints, the creation of national or regional stock markets in eastern and southern Africa may still be a premature project.

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<sup>39</sup> The success of unit trusts in Zimbabwe could, however, be a result of the relatively high savings rate as the figure below illustrates. The savings rate in Zimbabwe (excluding grants) is significantly higher than in Zambia, and this is especially pronounced for the period after 1990 (World Bank, *African Indicators*).



<sup>40</sup> *The Post* (Lusaka), April 15, 2002, "ABC Unit Trusts Target Market."

One could argue, nonetheless, that a regional market might present an efficiency improvement over local markets by widening the pool of stocks available to the public and, therefore, increasing liquidity and competitiveness, by facilitating trading<sup>41</sup> through the standardization of regulations, by acting as a centralized source of information, and by potentially decreasing the high overhead costs associated with operating several independent exchanges.<sup>42</sup>

As pointed out above, however, any benefit that might be expected from enhancing the stock market's efficiency will be a marginal benefit in an *overall* situation in which the role a stock market can realistically be expected to play in the economy is marginal. The stock market thus appears to be relegated to playing a secondary role in the economic development of economies like Zambia's, and its potential benefits may in fact not be large enough to compensate for the amount of (scarce) resources that are required to run a successful market, either nationally or regionally.

Before promoting the creation of more national markets or a regional stock market in Africa, it may be sensible to study other small African stock markets' experiences and their respective impact on the local economies.

Avenues for future research include the following:

- an analysis of the viability of regional markets in Africa that considers possible political conflicts over regulation, market location, and diverse macroeconomic goals;
- an analysis of the merits and demerits of the creation of regional markets versus the promotion of international cross-listings; and
- research into the potential benefits of financial institutions other than stock markets (e.g., internet auctions of coffee in Kenya, and commodity futures markets).

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<sup>41</sup> The volume of money directed to these exchanges may not necessarily increase, given that most of the major shareholders are foreign investors who already have access to all these independent markets.

<sup>42</sup> Costs could also increase, given that a regional stock market would be larger than national ones and would require a more efficient telecommunications system.

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