

Bank Privatization in Sub-Saharan Africa:
The Case of Uganda Commercial Bank

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Abstract

Previous empirical analyses have found that bank privatizations are more successful when the government fully relinquishes control, when the bank is privatized to a strategic investor, and when foreign-owned banks are allowed to participate in the bidding. The privatization of Uganda Commercial Bank (UCB) to the South African bank Stanbic met all these criteria, suggesting that it is a likely candidate for success. But other features suggest reasons for caution: UCB dominated the Ugandan banking sector prior to privatization and the institutional environment in Uganda was less favorable than in many of the middle-income countries looked at

in earlier empirical studies. Despite these concerns, the privatization appears to have been relatively successful. The portfolio of the privatized bank, which was cleaned prior to sale, remains relatively strong and profitability and credit growth are now on par with other Ugandan banks. Though market segmentation remains a concern since Stanbic faces little or no direct competition in many remote areas, some early results suggest that access to credit has improved for some hard-to-serve groups.

This paper—a product of the Finance and Private Sector Development Team, Development Research Group—is part of a larger effort in the [group to study the effects of structural change in African banking sectors. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at gclarke@worldbank.org or rcull@worldbank.org.

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I. Introduction

Although there has been much debate over the theoretical advantages and disadvantages of state ownership, empirical evidence mostly supports the idea that privately owned firms perform better than similar state-owned firms (Megginson, 2005b; Megginson and Netter, 2001; Shirley and Walsh, 2000).¹ Empirical studies that have looked at private and state-owned banks have reached similar conclusions. Credit growth, portfolio quality, profitability, and productivity are higher in systems dominated by private banks.²

The comparisons between private and state-owned firms suggest that privatization should improve bank performance. But critics of privatization have noted that privatized firms do not always act like firms that have always been privately owned (Caves, 1990; Cook and Kirkpatrick, 1988; Kay and Thompson, 1986; Stiglitz, 2000a, 2000b). Limits placed on privatized firms, such as limits on layoffs, price controls to keep products affordable for other state-owned entities or low-income households, and, for banks, lending requirements and restrictions on branch closings might harm their performance. Moreover, if problems in the institutional environment that prevent voters from holding politicians accountable are the reasons why state-owned enterprises perform poorly, then the privatization process—and regulation after privatization—might be as flawed as the management of state-owned enterprises was (Stiglitz, 2000a, 2000b). Privatized banks might therefore be unable to act like fully private banks.

¹ Megginson (2005b, p. 66), for example, concludes that “the weight of empirical evidence on the state versus private ownership question, . . . , now strongly supports those who believe that private ownership is inherently more efficient than state ownership.”

² Barth, Caprio, and Levine (2001a; 2004; 2001b) find state ownership is negatively correlated with portfolio quality, bank performance and financial sector development. LaPorta, Lopez-de-Silanes, and Shleifer (2002) find state ownership in 1970 is negatively associated with financial development, growth, and productivity in 1995. Beck, Demirguc-Kunt, and Levine (forthcoming) find a positive, although not highly robust, association between state ownership and crisis. So far, African financial systems have largely avoided financial crises in terms of large runs by depositors, although they often suffer systemic distress in the sense that a large percentage of loans are nonperforming. Although the situation may change with greater appetite for Africa risk, the relationship between state ownership of banks and crisis would not be borne out historically.

The empirical evidence on the effect of privatization on bank performance in developing countries is in fact mixed. But the evidence does not suggest that outcomes are random. Performance improvements are greater when the government fully relinquishes control, and preferably fully divests its entire shareholding;³ when banks are privatized to strategic investors, as opposed to being sold through a share issue privatization that can result in dispersed ownership; and when bidding is open to all bidders, including foreign-owned banks (Clarke et al., 2005a; Megginson, 2005a).

The privatization of Uganda Commercial Bank (UCB), the focus of this study, satisfies all three criteria. Stanbic Bank of South Africa acquired 80 percent of UCB's shares in late 2001, with the remaining 20 percent were transferred to a trust to be held for sale to Ugandan residents.⁴ In these respects, the privatization would appear to be a likely candidate for success.

Two things, however, set the privatization of UCB apart from most of the bank privatizations looked at in previous studies. The first is that Uganda is a low-income economy. Empirical analyses of bank privatizations in developing countries have focused on middle-income countries, mostly in Latin America and the transition countries of Eastern Europe.⁵ Given that bank privatization has been less successful in the (mostly middle-income) developing economies that have been the focus of previous studies than in high-income OECD economies (Megginson, 2005a), it seems plausible that privatization might be even less successful in low-income economies. Institutional constraints that reduce performance gains in developing economies are likely to be even more binding in low-income economies than in middle-income developing economies. Consistent with this, Senbet and Otchere (2006) find that the performance of privatized

³ In some cases, the government is able to remain in control of a bank in which it owns less than a majority of shares. For example, Kenya Commercial Bank is 26 percent state owned, but the remaining shares are so widely dispersed that the government in effect continues to appoint the bank's board of directors.

⁴ The remaining 20 percent was sold in late 2006 via a successful IPO.

⁵ For example, a special issue on Bank Privatization in the *Journal of Banking and Finance* included several country case studies of bank privatization in non-transition developing countries. The country case studies are Argentina (Berger et al., 2005), Brazil (Beck et al., 2005a; Nakane and Weintraub, 2005), China (Chen et al., 2005), Mexico (Haber, 2005), Nigeria (Beck et al., 2005b) and Pakistan (Bonaccorsi di Patti and Hardy, 2005). Except for Nigeria, all are middle-income. The issue also includes two cross-regional studies for South East Asia (Williams and Nguyen, 2005) and Eastern Europe (Bonin et al., 2005b), both focusing only on middle-income economies. Megginson (2005b) lists an additional study of an middle-income economy, Egypt (Omran, 2007). Several other studies have looked at bank privatization in Eastern Europe and Central Asia—mostly focusing on middle income countries. See, for example, Bonin and others (2005a) and Fries and Taci (2005).

banks in Africa actually deteriorated after privatization. It is important to note, however, that these privatizations were share-issue privatizations of only a portion of the governments' ownership stakes—as noted, both of those features are associated with reduced gains in developing countries (Clarke et al., 2005a; Megginson, 2005a).

A second, and potentially greater concern, is the importance of UCB in the Ugandan banking sector. The privatized bank, Stanbic, holds about 30 percent of loans and deposit accounts.⁶ Moreover, none of the 68 branches operated by UCB were closed after privatization, and thus Stanbic maintains the most geographically extensive branch network of any bank. As of 2005 Stanbic had 74 branches, 54 outside of Kampala. Only one other commercial bank, the agriculturally oriented Centenary Rural Development Bank, has more than four branches outside Kampala (see Appendix, Figure 9). Stanbic, therefore, faces little or no direct competition in most areas in which it operates.

This could affect the success of the privatization in at least two ways. First, it might affect the way the government treats privatization.⁷ The privatization of a large bank with a dominant rural network is likely to be fraught with political difficulty, and, as described below, this was true for the privatization of UCB. Political accommodations that make a deal palatable to the government, but which handcuff the new owners, might have negative consequences for postprivatization performance. Moreover, although Stanbic is now the largest bank in Uganda, it is still a small bank by the standards of industrialized countries, and therefore not able to reap the economies of scale that one might associate with size in other contexts.

Second, because of its extensive network outside of Kampala, UCB faced little competition in many areas of the country. Although few studies of bank privatization have looked at the effect of competition on privatization outcomes, studies in other sectors have often suggested that privatizations are more successful when the privatized firms face competition. For example, although privatization appears to be associated with performance improvements in the telecommunications sector, many studies have

⁶ World Bank (2005).

⁷ Clarke and Cull (2005) look at the political factors that affected provincial bank privatization in Argentina. They find that privatization contracts were less favorable to the government with respect to the concessions that they made to the new owners in provinces where the public bank was more dominant (that is, where it faced less competition). They attributed this to the fact that these provinces were less attractive to bidders.

found that competition is at least as important as privatization and that the gains from privatization are significantly greater when the privatized firm faces more competition.⁸ Although there is little evidence on the interaction between competition and privatization in the banking sector, the privatized banks have faced significant competition in most studies looking at bank privatization.

The situation in Uganda, with the privatization of a large public bank in a relatively small sector, is probably representative of many of the privatizations that have occurred in Sub-Saharan Africa in recent years.⁹ Throughout the region, banking sectors tend to be highly concentrated (see Table 1), with few private banks having large rural networks.¹⁰ Thus, the experience in Uganda is likely to be more representative of the experience in other countries in Sub-Saharan Africa than the experience in other countries that have been the focus of past studies.

We should note that that this analysis would not have been possible without the extraordinary effort of Bank of Uganda (BOU) staff in collecting, cleaning, and organizing the data. In addition, we are fortunate that branch-level financial and income statements are available for Stanbic. These data enable us to test whether performance improvements are greater in areas where Stanbic faces more competition. They also enable us to test whether geographic factors such as population density and income are linked to changes in Stanbic's activities since privatization. This should provide a more detailed description of access to financial services for disadvantaged groups.

The rest of the paper is organized as follows. Section II provides background on the historical evolution of the Ugandan banking sector, UCB's role in it, and UCB's privatization process. Section III uses bank-level data to benchmark postprivatization profitability, portfolio quality, and cost management. Access issues are also touched upon by focusing on credit growth and portfolio composition. Section IV summarizes the

⁸ Megginson (2005b, Chapter 8) provides an extensive summary of this literature noting that “[t]aken as a whole, the results of these studies offer clear lessons for academics and policymakers alike. Privatization, competition, and establishing an independent regulation all seem to improve telecom performance...” Megginson (2005b) also notes that most studies that have looked at privatization and competition have concluded that the reforms are complementary (Fink et al., 2003; Li and Xu, 2004; Wallsten, 2001).

⁹ Clarke, Cull, and Shirley (2005b) show that although state ownership remained fairly high in Sub-Saharan Africa at the beginning of the 1990s, it was one of the most active regions with respect to bank privatization in subsequent years.

¹⁰ Indeed, a recent study concluded that banking sectors are on average more concentrated in Africa than in any other region of the world (Honohan and Beck, 2007).

performance of individual Stanbic branches, testing particularly for geographic variation in outcomes. Section V concludes and attempts to draw policy lessons.

II. Background

The Uganda Credit and Savings Society, which had been created in 1950 to extend credit to entities without access to loans from commercial banks, was converted into the Uganda Commercial Bank (UCB) in 1965. Before this, three foreign-owned banks (Barclays, Grindlays, and Standard), with clients almost exclusively affiliated with parent companies in Great Britain, dominated commercial lending. The creation of UCB was part of an effort to promote indigenous interests while extending access to financial services to a wider set of recipients.

UCB, however, quickly ran into problems. UCB's criteria for evaluating creditworthiness tended not to be commercially sound and thus its share of non-performing loans (NPLs) was far higher than for other commercial banks. Repeated capital injections proved necessary, because of poor portfolio quality and UCB's pursuit of its mandate to open additional upcountry branches to encourage domestic savings.¹¹

UCB's branch network expanded under the activist government policies pursued by Idi Amin in the 1970s. All banking activities of government bodies, parastatals and cooperative unions were transferred to UCB in 1972. Foreign banks were forced to either close up-country branches or sell them to UCB. UCB thus became the sole provider of banking services in many locations, particularly in rural areas. Although financial sector liberalization, which started in 1987 and accelerated in the early 1990s, brought an influx of new banks, UCB's (now Stanbic's) branch network remains the largest (see figure 9 in Appendix).

Despite liberalization, Uganda's banking sector slipped into crisis in the early to mid 1990s.¹² Between 1994 and 1998, half of the sector faced solvency problems (Caprio and Klingebiel, 2003). Despite the entry of Citibank in September 1999, the

¹¹ This discussion is based heavily on the description in Kasekende and Sebudde (2002).

¹² In a cross-country study of banking sector stability, Caprio and Klingebiel (2003) classify Uganda as experiencing a systemic crisis from 1994 to 2003, which they define as much or all of banking capital being exhausted.

number of banks in Uganda contracted substantially over this period.¹³ Credit extended to the private sector by deposit-taking banks hovered between 4 and 5 percent of GDP from 1993 to 2003. Only in 2004 did that figure eclipse 6 percent of GDP.

Not surprisingly, UCB also had problems during this time. But because it was the backbone of the payments system, especially in rural areas, and because the deposit insurance program was not fully capitalized, meaning that liquidation or failed privatization would have imposed a heavy fiscal burden on the government (Kasekende, 2004), closure and liquidation were not options. To preserve confidence in the payments system, the government took a cautious approach towards restructuring UCB, keeping the bank open throughout the process and maintaining its majority shareholding.

In 1995, the government established the Nonperforming Asset Recovery Trust, which assumed UCB's nonperforming assets. The government also sold noncore assets, reduced staffing levels, and invested substantial amounts to upgrade computer systems (Kasekende, 2004). In 1998, UCB was recapitalized and a minority shareholding block (49 percent) was sold to a Malaysian Company, Westmont Land Bhd.

Evidence from other developing countries indicates that postprivatization performance improvements are smaller when the government maintains a substantial shareholding (Clarke et al., 2005; Megginson, 2005). The privatization of UCB was no exception. Unknown to the government, Westmont had borrowed money from Greenland Bank to purchase its equity stake in UCB. Greenland had signed an agreement with the Bank of Uganda (BOU) in that same year to remedy insolvency and correct violations of insider lending and single loan exposure limits (Brownbridge, 2002). After the transaction, UCB began lending to Greenland and its related companies despite the inherent conflicts of interest.

In 1999, the BOU had to intervene in UCB, but not before 64 percent of its assets were nonperforming. The government decided to reprivatize UCB, only to more competent owners. It did this only after conducting market surveys to gauge interest and preferred sale options. The government announced that it would prefer to maintain a 20 percent shareholding although it would consider selling its entire stake, and multiple

¹³ Two banks were closed in both 1998 and 1999 (Brownbridge, 2002; Kasekende 2001). In 2002, Caprio and Klingebiel (2003) reported that one small bank was intervened and two others were experiencing difficulties.

restructuring options were considered including sale on an “as is” basis, without noncore assets, and after loss-making and/or remote branches were liquidated (Kasekende 2004). Under any sales option, recapitalization was necessary given the extent to which UCB’s balance sheet had deteriorated.¹⁴

In the end, Stanbic Bank of South Africa acquired 80 percent of UCB’s shares in late 2001. The remaining 20 percent were transferred to a trust to be held for sale to Ugandan residents. Stanbic was also required to combine the its existing operations in Uganda with UCB’s operations within six months of closing. In our financial data, Stanbic and UCB were not fully merged until the third quarter of 2002, and thus we use this as the beginning of postprivatization period.

Under the sales agreement, the buyer could alter staffing and restructure branches subject to certain stipulations. On staffing, the government agreed to cover severance costs for up to 500 employees for a period of two years after closing. On branching, Stanbic agreed to maintain the entire network for at least two years. After that point, Stanbic could file written notice with BOU that a branch was not financially viable, along with a proposed schedule for closure. In cases where BOU found Stanbic’s financial analysis reasonable, the government was obliged to negotiate compensation to keep such branches open. In cases where Stanbic and the government could not agree on adequate compensation, BOU would permit closure of that branch.¹⁵ As of September 2004, only one of the thirty-three branches mentioned in the annex to the sales agreement as potentially unprofitable (Mulago) did not appear in our database of branch-level financial statements.¹⁶ Overall, those data cover 74 Stanbic branches, six more than the combined

¹⁴ The government again undertook management reorganization, staff reductions, sales of some noncore assets, and technology upgrades prior to the second round of privatization. The new purchaser preferred to adopt its own computer system, rendering pointless the government investment in this area. Similarly, staff retrenchment and asset restructuring were likely better done by the purchaser after the privatization than by the government in anticipation of the sale (Kasekende 2004). The UCB experience in this regard is by no means unique. The effectiveness of preprivatization reorganization and technological upgrading of banks by governments in many developing countries could be called into question.

¹⁵ There were five “special case” branches that were acknowledged in the sales agreement to be losing money. The government gave Stanbic \$US57,700 to cover those losses for the first six months after closing the sale. After those six months, Stanbic had the option to provide evidence that the branches could not be profitably maintained. As of September, 2004 all five of the special case branches (Ibanda, Kalangala, Kihihi, Malaba, and Pakwach) remained open. As for non- special case branches, if BOU found evidence of their financial non-viability convincing, the government had the option to provide compensation to cover those losses on an ongoing basis, or it could close the branches.

¹⁶ We cannot however rule out the possibility that the Mulago branch was re-named rather than closed.

total for UCB and Stanbic in 2000. On that basis, the government has clearly been successful in its desire to sell UCB to private interests that would maintain an extensive branch network.

III. Bank-Level Analysis

A. Profitability

Figure 1 offers yearly profitability data from 1996 to 2004. From 1996 to 2001, return on assets (ROA) is calculated three ways: for Stanbic only, UCB only, and for a composite of those two banks (by summing their financial information). The composite approach has been adopted in the literature to assess whether overall management of the assets involved in a bank merger or acquisition has improved (Berger et al., 2005). We also include profitability figures for the median Ugandan bank (other than Stanbic or UCB) to put the Stanbic-UCB results in context. In part, UCB's ROA was relatively high prior to privatization due to government-financed loan write-offs. For example, and as noted above, prior to the first privatization attempt, in 1995 the government established a Non-Performing Asset Recovery Trust (NPART), to which it transferred the bad-debt book of UCB (Kasekende, 2004).¹⁷

Prior to the privatization of UCB, Stanbic had higher and less volatile profitability than UCB. Low profitability and high volatility for UCB from 1996 through 1998 is due to the failed first privatization attempt. In 2002, Stanbic's profitability declined as management strove to combine the two banks into a single operation. Profits then returned to Stanbic's historic levels in 2003 and 2004. The figures for the composite bank are better suited to gauging the overall benefits of the transaction, and those too show improvement over time. Early in the period, UCB was substantially larger than Stanbic and thus its performance drove the composite figure down, though UCB's profitability was not especially low in comparison with the rest of the banking sector. Over time, the composite figure improved and, as noted, after the acquisition Stanbic's profitability reached its highest levels.

¹⁷ After three years of operations NPART had recovered only \$15 million of the \$65 million in assets with which it was entrusted.

Figure 1 therefore indicates that profitability improved after privatization. This could however be attributed to the general improvement in the banking environment since 2001, which is also shown in Figure 1. There are a number of factors that contributed to the general increase in bank profitability. New export sectors (including fish, flowers, hotels) were opening and thriving, offering low risk credit opportunities for commercial banks. Other factors that benefited all banks might have been especially advantageous for Stanbic. For example, remittances were increasing during this period, and Stanbic's postprivatization dominance of the payment system could have offered it an advantage over other banks in attracting that business. Similarly, the stock of short-term government debt increased from 1 to 10 percent of GDP from 2001 to 2003, which led to a hike in short-term interest rates. Stanbic was aggressive in acquiring these securities at auction and thus their profits were more closely linked to returns on these assets than those of other banks. Finally, Stanbic processes all transactions related to the government payroll, a role that it inherited from UCB. This is an important source of current and future income (provided they retain this function).

To better benchmark Stanbic's postprivatization performance, Table 2 offers profitability regressions that control for bank size (total assets), ownership type (foreign or domestic), and asset portfolio allocation variables (e.g., percentage of lending to agriculture). All models also include yearly and quarterly dummy variables to account for cyclical or seasonal factors that affected all banks. We use quarterly ROA as the dependent variable because it expands the observation set dramatically over yearly data, although results are qualitatively similar when we use annual ROA. Our last observations come from the second quarter of 2005.

Some of the factors described as having a positive effect on Stanbic's postprivatization profitability are accounted for in the regressions. For example, by creating a pro-forma bank (which merges the preprivatization balance sheets and income statements of UCB and Stanbic), some of the regressions offer comparisons between the postprivatization merged bank with a preprivatization "virtual" bank that was already enjoying the benefits of processing government payroll transactions. Also, the quarter and time dummies control for the increased opportunities to provide credit to new export sectors. Those variables also help control for the increased holdings of short-term

government debt and the increase in remittances, though again these factors might have been more beneficial to Stanbic than other banks.

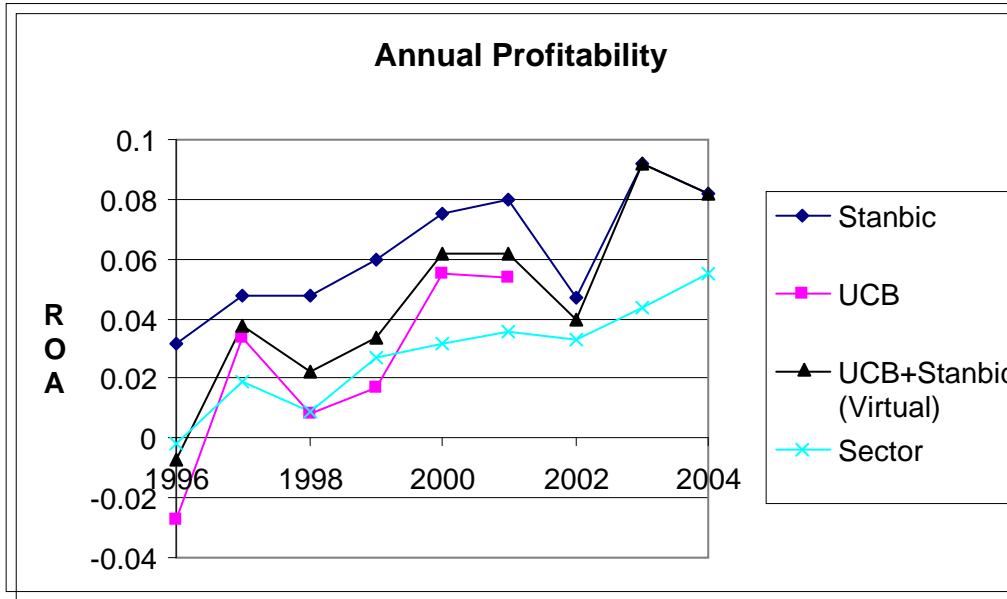


Figure 1

All models are estimated with a robust clustering method that accounts for both heteroskedasticity and correlation across multiple observations from the same bank. Because observations from the same bank are likely to be correlated, ordinary least squares (OLS) techniques can underestimate errors (thus overestimating significance levels). Although we do not present the results here in the interest of brevity, qualitative results are similar for models estimated either via simple OLS, OLS with White’s heteroskedasticity-consistent standard errors, or least median squares, though significance levels for those models are sometimes higher.¹⁸

Models on the left-hand side of Table 2 include dummy variables to benchmark UCB’s profitability prior to the privatization, Stanbic’s preprivatization profitability, and the profitability of the merged institution after the transaction. Model 1 indicates that Stanbic was relatively profitable prior to privatization, while Model 2 indicates that UCB had relatively low preprivatization profitability. The insignificant coefficient for the

¹⁸ OLS and OLS with clustered standard errors yield identical coefficients. The only difference is in the standard errors, which affects significance levels, and thus the interpretation of results.

Stanbic postprivatization variable in both models indicates that its performance was on par with that of other Ugandan banks after the transaction.

On the right hand side of Table 2 we assess the performance of the composite bank. As in Figure 1, we merge the financial statements of UCB and Stanbic prior to privatization. We include three variables to capture the effects of the transaction: a dummy variable equal to one throughout the period to capture the baseline performance of the composite bank, another dummy equal to one beginning at the time of the privatization and a third variable measuring the quarters since the privatization. The dummy set equal to one after privatization is a standard way to measure the effects of restructuring at the time of the transaction (thus the variable is labeled “Stanbic at Privatization” in the tables) (See Berger et al. 2005). The quarters since privatization picks up dynamic postprivatization performance effects.

Results indicate that the composite (virtual) bank had profitability on par with that of other Ugandan banks. Thus Stanbic’s relative profitability was canceled out by UCB’s lack of it. At the time of the privatization there was no significant change in composite profitability, nor was there a change in the quarters since the transaction (except in Model 3, though the coefficient was significant at only the 10 percent level). The results reinforce those in Models 1 and 2 that treated UCB and Stanbic as separate institutions – the merger of a relatively profitable institution with a relatively unprofitable one produced an entity similar in profitability to other Ugandan banks. The only difference is that Models 3 and 4 also indicate that the composite bank was about as profitable as other banks prior to privatization.

B. Portfolio Quality

Figure 2 provides year-end data on the share of NPLs for Stanbic, UCB, and the composite bank from 1996 to 2004. UCB’s laggard profitability from 1996 to 1998 was largely attributable to the poor quality of its loan portfolio as its NPL share reached 60 percent in 1996. By contrast, Stanbic’s NPL share was low and stable throughout the period. The process of cleaning UCB’s portfolio (via the asset management company) that began in the late 1990s was complete by the time the bank was assumed by Stanbic in 2002. Thus, Stanbic acquired a bank with a clean balance sheet, and the NPL share for the merged entity has remained low since.

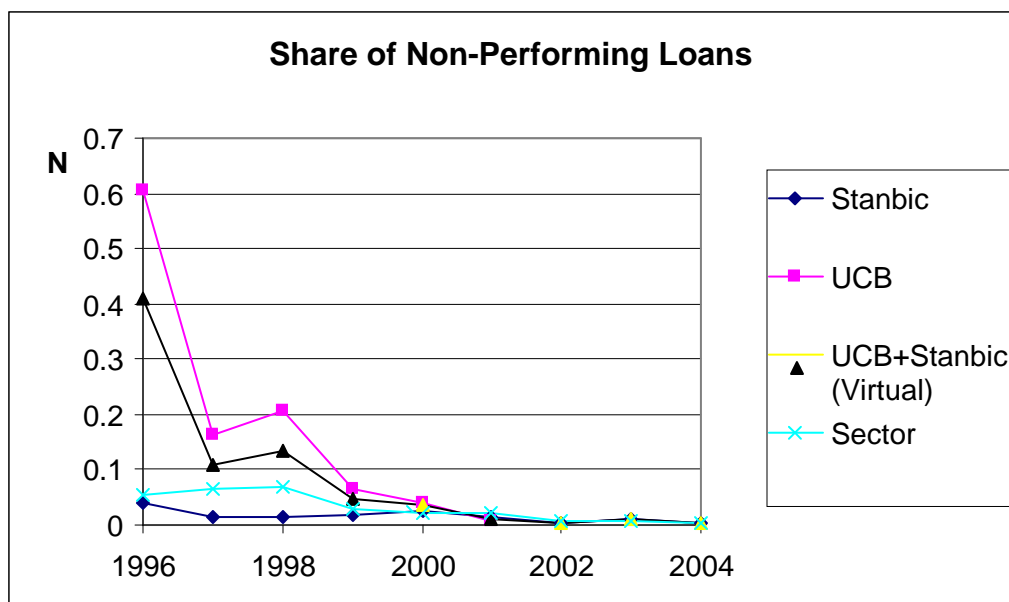


Figure 2

Regressions in Table 3 confirm Figure 2. Models 1 and 2, which treat UCB and Stanbic as separate prior to privatization, indicate that UCB's NPL share was significantly higher than that of the typical Ugandan bank while Stanbic's was lower (in Model 1). Since privatization, Stanbic's NPL share does not differ significantly from the rest of the banking system.¹⁹

Models 3 and 4 indicate that the composite NPL share was not above the sector average prior to privatization (because Stanbic's was relatively low).²⁰ Since the transaction, the NPL share has remained on par with other banks, once the asset allocation variables are included (Model 4).²¹ Without the asset allocation variables (Model 3), the quarters since privatization variable is positive and significant, though

¹⁹ Because Stanbic is a foreign bank, we also need to take that coefficient into account when interpreting these regressions. In the models without asset allocation variables in Table 3 (i.e., the odd-numbered ones), the foreign ownership dummy is insignificant. Thus, those models suggest that Stanbic's portfolio quality is now on par with foreign and domestic banks alike. However, when the asset allocation variables are included in the regression, the foreign coefficient is positive and significant. This suggests that domestic banks have higher NPL shares than they otherwise might because of the types of lending that they pursue. Phrased differently, if the foreign banks had portfolio allocations similar to domestic banks, the foreign banks' NPL shares would be higher (on average) than those of domestic banks. Of course, banks choose their asset allocation strategies, and thus foreign banks' reliance on lower risk activities could be taken as a sign of prudence.

²⁰ There was however a reduction in the UCB's NPLs due to the 1998 recapitalization described above. This can be seen in Figure 3.

²¹ Model 3 indicates that Stanbic's portfolio quality was on par with all banks. Model 4 indicates that it was on par with foreign banks.

small (implying a 0.3 percent increase per quarter). This suggests that it might be the type of lending that Stanbic is pursuing that is raising its NPL share (albeit only slightly). We explore this below. By contrast, in the regressions that treat Stanbic and UCB separately, the positive, significant coefficient for UCB is stronger when allocation variables are added (column 2). Thus, UCB's poor portfolio quality does not appear to have been solely attributable to the sectoral composition of its lending.

C. Costs

Figure 3 indicates that UCB's ratio of total expenses to assets was substantially higher than Stanbic's from 1997 to 1999. Stanbic's expense ratio nearly doubled from 2001 to 2003, coinciding with the privatization of UCB and the subsequent merger of the two banks. Total expenses include interest expenses, provisions for bad debts, salaries and other staff costs, costs of premises, depreciation costs, and transport costs. The largest jumps were a sixfold increase in salaries and staff costs and a fivefold increase in a catchall category for other expenses. In comparison, total expenses only tripled. These jumps reflect the costs of assimilating a larger workforce and branch network. In conversations with Stanbic management it was also noted that the increase in "other" expenses reflected the costs of rebranding, that is upgrading and making the branches acquired from UCB look like Stanbic branches. The upgrading also included installing a proprietary intrabank payments system, through which other banks also are now clearing payments from remote parts of the country. Because these costs are not recurrent, we expect that Stanbic's operating costs will decline in the future. Moreover, as its asset base began to grow, Stanbic's total expense ratio stabilized in 2003, and declined in 2004 towards its level at the start of the period.

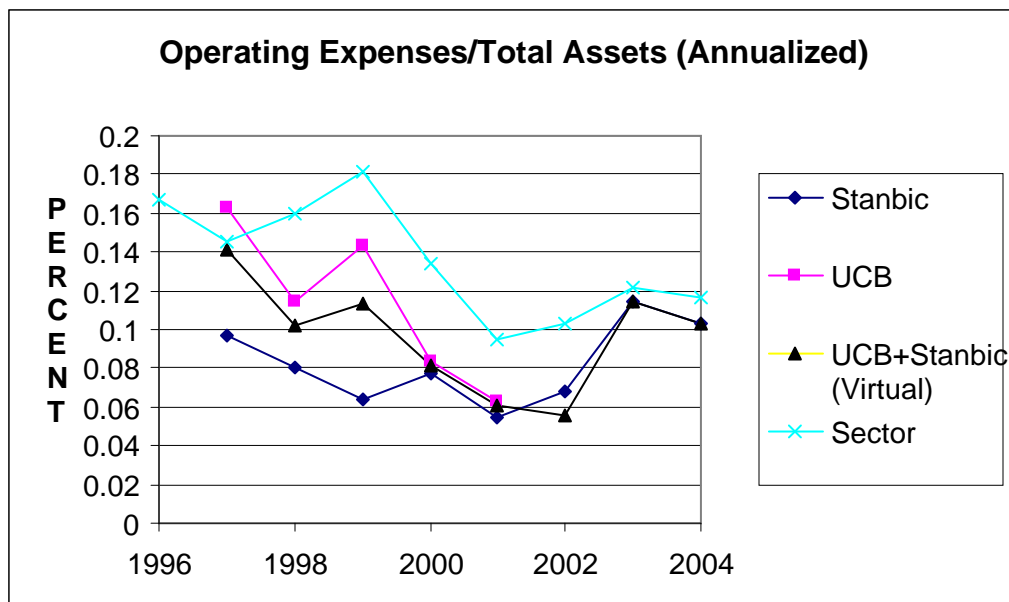


Figure 3

Comparisons between Stanbic-UCB’s operating expenses with the rest of the banking sector are deceptive. Based on Figure 3, one might conclude that neither Stanbic nor UCB is, or was, a high-cost bank. However, Stanbic and, especially, UCB were large banks that presumably enjoyed scale economies that smaller banks did not. We would therefore expect their cost ratios to be lower than those for the smaller banks that comprise the sectoral average.

Regressions in Table 4 control for bank size, and thus help formalize the relationships suggested by Figure 3. Stanbic’s expense ratio was significantly lower than the typical Ugandan bank prior to privatization in Model 1, though the result is no longer significant when portfolio allocation variables are included in Model 2. This indicates that Stanbic’s costs were significantly lower in Model 1 because of the type of intermediation that it did. Controlling for portfolio allocation, Model 2 also indicates that UCB’s expenses were higher than average. Most important, the postprivatization coefficient is significant and positive in both models, indicating that Stanbic’s expenses have been higher than the typical Ugandan bank since the acquisition.²² The results for

²² Beck and Hesse (2006) find that Stanbic’s postprivatization interest spreads and margins are significantly higher than those of other Ugandan banks. An increase in spreads and margins could indicate that Stanbic is passing on their high operating costs to borrowers, though Beck and Hesse point out that this also could be due to the riskier loan portfolio it inherited from UCB. Interestingly, those authors do not find that the

the composite virtual bank reinforce that conclusion (Models 3-4). Prior to privatization, the composite bank had higher expenses than other banks, though the result just misses significance in Model 3. At the time of privatization, both models indicate that there was no significant reduction in the expense ratio, and in fact Model 3 indicates that it went up. In the quarters since privatization, both models indicate that the expense ratio has been increasing. Although the slight dip in the expense ratio in 2004 in Figure 3 offers a hopeful sign, the regression evidence suggests that postacquisition cost containment remains a challenge for Stanbic. However, to the extent that a large share of the costs is associated with re-branding, including the improvements to the payments system infrastructure described above and a large expansion in the number of ATMs, we expect that Stanbic's cost ratio will decline in the future.

D. Credit Growth

Figure 4 shows growth in real credit extended by Stanbic, UCB, the composite bank, and the sector as a whole. UCB's steep reduction in credit in 1997 stems from bank restructuring efforts prior to the first privatization. In 1998, UCB advances grew substantially, though the quality of that lending was poor as indicated by BOU's need to intervene. From 1999 to 2001, UCB advances declined in real terms, though the decline is attributable to rules that prohibited UCB from extending new loans while under BOU intervention. Stanbic's advances grew robustly from 1996 to 1998, and more slowly in 1999 and 2000. In 2001, the amount of real credit extended by Stanbic declined, reflecting perhaps that the bank was reorienting its lending in anticipation of the acquisition. We note, however, that real credit growth was weak for all banks in 2001. The composite bank shows the same pattern as UCB, with contraction in real credit in 1997, 1999, and 2001. After the transaction, real advances grew steadily and are now on par with Stanbic's 1997-1998 level, though the growth in 2003 and 2004 was no faster than for the sector as a whole.

privatization of UCB to Stanbic had a significant effect on the spreads of other banks. This could be because of market segmentation, that is, UCB (now Stanbic) faces no competition in many locales.

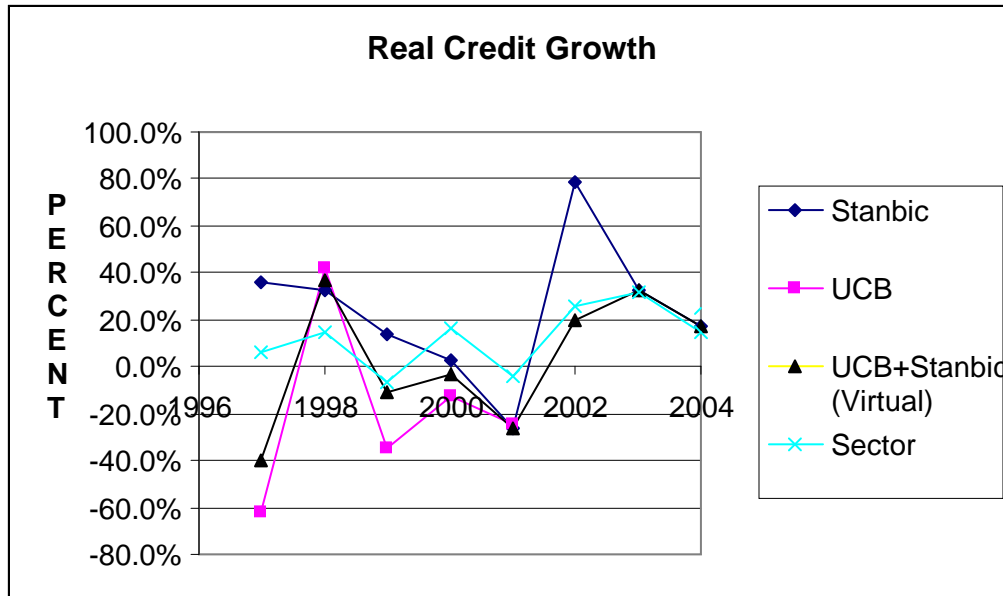


Figure 4

Regression models in Table 5 also indicate some credit growth since the privatization to Stanbic. Model 1 indicates that UCB’s real credit growth was significantly slower than that of other banks, whereas Stanbic’s credit growth was not significantly different from other banks before or after the acquisition. The insignificant coefficient for Stanbic after the acquisition could be seen as a sign of improvement in that UCB’s sluggish preprivatization lending had been overcome. Recall however that UCB’s sluggish lending was largely due to BOU restrictions. These results, therefore, could be seen as a return to normal operations for the UCB portion of the merged entity.

Model 3, which describes the lending behavior of the composite bank, reinforces conclusions drawn from Model 1. Prior to the acquisition, the composite bank had significantly slower credit growth than other Ugandan banks. In the year of the privatization, that changed. Although the “Stanbic at Privatization” coefficient is insignificant, it is positive and similar in magnitude to that of the “UCB+Stanbic” coefficient. To assess Stanbic’s postprivatization credit growth relative to other banks, those two coefficients must be evaluated jointly. When summed, they are not significantly different from zero, which indicates that Stanbic credit growth improved to the sector average (*ceteris paribus*). The quarters since privatization coefficient is near zero and insignificant, indicating that the improvement in credit growth has been

maintained. Moreover, the results for NPL share indicate that this credit growth has not come at the expense of portfolio quality.

E. Portfolio Allocation

To this point, we have focused on the portfolio orientation variables as controls in order to better benchmark Stanbic's performance relative to other Ugandan banks. In this section, we examine the effects that these variables have on our performance variables (profitability, portfolio quality, and expenses), and explore what those effects might imply for Stanbic in the future. A key point is that all of the loan portfolio orientation variables in Tables 2, 3, and 4 tend to be significantly associated with poorer performance, which indicates that lending has typically been less profitable, riskier, and more costly than holding government securities.²³ However, the coefficients for the share of lending devoted to agriculture are typically much larger (in absolute value) than those for other sectors, which implies much steeper performance drop-offs. For example, the profitability regressions in Table 2 imply that each percentage point increase in the share of lending to agriculture is associated with a 0.3 percentage point decrease in ROA. This effect is quite large compared to those for other sectors. The effect for construction share is about half as large. Those for infrastructure, manufacturing, trade and other services are roughly one-quarter the size of those for agriculture. Similar comparisons hold for the portfolio quality and expense ratio regressions in Tables 3 and 4.

²³ Such results are not unique to Uganda. For example, Beck and others (2005) find similar results for Nigeria.

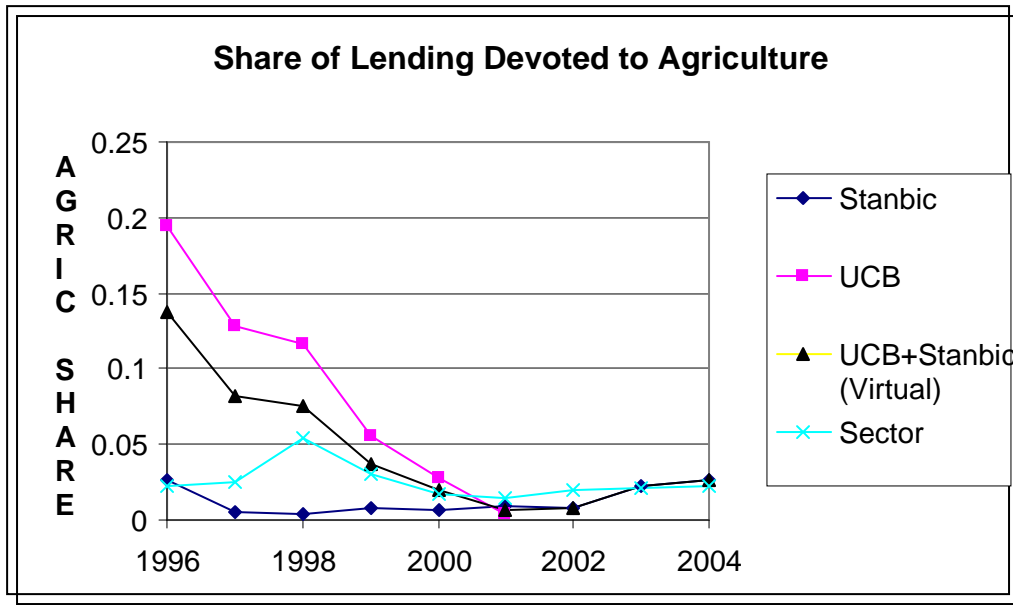


Figure 5

The discussion of agricultural lending and bank performance could be relevant for Stanbic because it has created a business development unit that originates SME loans, especially agricultural loans to growers of commercial crops who have long-standing relationships with multinational buyers. The success of that unit is likely reflected in the gradual increase in Stanbic’s share of agricultural lending from almost nothing at the time of privatization to almost 4 percent as of the end of 2004. At the same time, however, conversations with Stanbic management indicate that much of the new lending supports the marketing and sales efforts of larger agribusiness firms rather than small or medium-sized farms.

The even-numbered regressions in Table 5 help put the 4 percent figure in perspective.²⁴ Foreign banks typically devote 7 percent less of their portfolios to agriculture than domestic banks, a result which is significant in Models 2 and 4. This effect must be added to the coefficient for “Stanbic prior to privatization” to gauge Stanbic’s overall standing with respect to agricultural lending. For example, in Model 2, Stanbic’s preprivatization coefficient is -.021, which is significant at the 1 percent level. When added to the foreign coefficient, this implies that Stanbic devoted 9.4 percent less

²⁴ Conversations with Bank of Uganda staff suggest that not all agricultural activities are subsumed within the agricultural lending variable in our dataset. This too might contribute to the relatively low level of lending to that sector indicated in Figure 5.

of its portfolio to agriculture prior to acquiring UCB than typical domestic banks. Interestingly, Model 2 also implies that the steep reduction in UCB lending to agriculture from 1996 to 2000 left its share on par with the typical domestic bank.

The positive, though insignificant, Stanbic postprivatization coefficient may therefore be interpreted as reflecting greater emphasis on agricultural lending, as was suggested in Figure 5. Again, however, that coefficient needs to be evaluated jointly with the foreign ownership variable. Thus, the models imply that Stanbic now lends as much to agriculture as its foreign competitors, but foreign banks still tend to lag behind domestic ones on this measure. Results for the composite bank (column 4) yield the same conclusion, except that the composite was on par with foreign banks before and after the privatization.

Though growing, Stanbic's share of lending to agriculture is not therefore high by the standards of the banking sector, which is also reflected in Figure 5. To the extent that it reflects a trend that will be carried into the future, however, these results suggest two potential concerns. First, Stanbic is a bank with little historical expertise in this area. Second, although this new round of lending appears to be going to a new group of borrowers and supporting different activities than in the past, the evidence from Uganda indicates that agricultural lending has typically been associated with worse outcomes than other types.

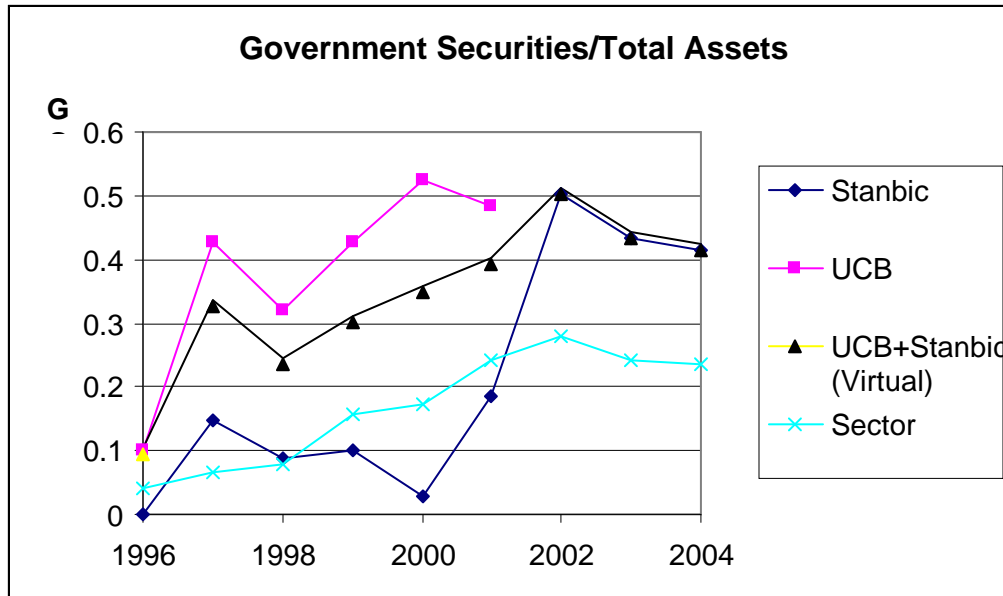


Figure 6

Increased Stanbic lending to agriculture does not necessarily imply a shift in the sectoral composition of its portfolio. It could be that Stanbic shifted from holding government securities to lending, but that all sectors have benefited proportionally. Figure 6 shows that Stanbic's ratio of government securities to total assets declined from over half just after privatization to about 40 percent at the end of 2004. The pattern is reminiscent of that of the first UCB privatization, in which the share of government securities fell from 43 to 32 percent in the year after the transaction. In both cases, cleaning the asset portfolio of UCB to facilitate sale resulted in abnormally high holdings of government securities. Lending is likely to comprise a larger share of Stanbic's portfolio, not only due to the natural tendency to shift away from government securities after privatization, but also because Stanbic's government securities share hovered near only 10 percent throughout the preprivatization period.

As noted, the rapid increase in Stanbic's holdings of government securities in 2001 and 2002 was also driven by the increase in the stock of short-term government debt and the resultant hike in short-term interest rates. Although all banks availed themselves of this profit opportunity Figure 6 does indicate that Stanbic's share of government securities was increasing more rapidly than that for other banks. We note however that the share of government securities is included as an explanatory variable in

many of the regressions. Stanbic's relatively heavy reliance on government securities is therefore already controlled for, and thus the results from the profitability, costs, and credit growth regressions for Stanbic-UCB cannot be ascribed to this factor. A general decline in the attractiveness of government securities as an investment alternative (as suggested by the figures for 2003 and 2004 in Figure 6) and the natural tendency to shift away from these securities in the wake of a privatization make it likely that Stanbic's government securities share will decline in the future.

Will all sectors benefit equally from increased lending? Figure 7 suggests not. In the preprivatization period, Stanbic lent about 60 percent of its portfolio to the manufacturing sector. Merging its operations with UCB reduced that figure to 40 percent in 2002, but the decline continued to about 20 percent in 2004. Lending to manufacturing by the composite bank is at its lowest level since 1996. These figures indicate a true shift in strategy for Stanbic, away from its traditional base, manufacturing, and toward other types of lending.

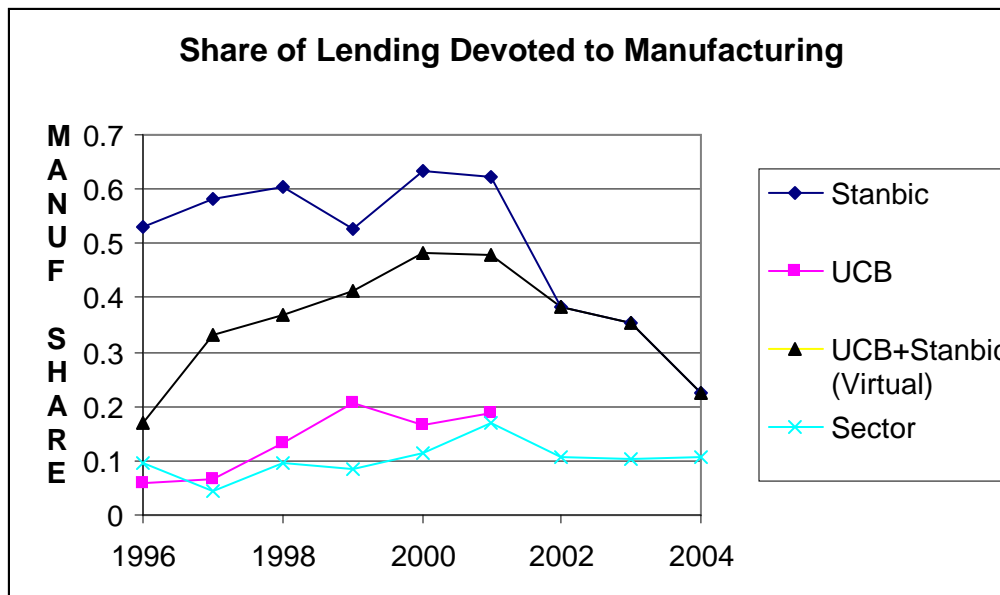


Figure 7

The bank-level analyses lead to at least three conclusions. First, portfolio quality improved just prior to the UCB-Stanbic privatization, and Stanbic has maintained that level. Of course, all new loans are good loans, and thus one would expect the share of NPLs to rise over time, though not to UCB's levels in the late 1990s. Second, cost

containment remains a challenge for Stanbic. This should be expected for an institution merging the operations of two large banks, while at the same time shifting its lending strategy. Moreover, the costs associated with rebranding are one-time, and thus we would expect Stanbic's operating cost ratio to decline in the future. Third, profitability and credit growth are now on par with that of the typical Ugandan bank, a marked improvement over UCB's performance prior to the acquisition. This suggests that the additional revenue streams associated with increased lending have exceeded the additional costs, at least so far. In the branch-level analyses in the next section, we examine what these changes have meant across locales (especially rural vs. urban) and economic strata.

IV. Branch-Level Analysis

As summarized in the Appendix (Figures 8 and 9), from 2000 to 2005 the total number of bank branches in Uganda increased by 60 percent (from 123 to 197). However, 59 of the 74 additional branches are located in Kampala, which suggests that the benefits of increased competition were distributed unequally across geographic areas. That said, some of the districts with new branches were starting from a low base in 2000. In percentage terms, these new branches represented a substantial increase in potential competition. In a handful of other districts, however, the total number of branches actually declined. In the empirical exercises that follow, we exploit this variation to see whether the performance of Stanbic branches is in part explained by competitive pressures.

The variation in outcomes across Stanbic branches is substantial (Table 6). Although we only have branch-level data for three years (2002-2004), return on assets ranges from -20 to 52 percent. One fifth of the branch observations have ROA less than or equal to zero. Below, we test whether the least profitable branches are disproportionately located in areas with low per capita income and population density. The ratio of loans to deposits, which is an indicator of the extent to which local funds are re-lent within the community, also varies substantially.²⁵ The figure for the median

²⁵ We acknowledge at the outset of this section that we don't know for certain whether loans (deposits) attributed to a particular branch go to (come from) the district where the branch is located. Our assumption is that transaction costs make it highly likely that they are, but that is only an assumption.

branch is quite low (7.7 percent), which is reflective of the low level of intermediation throughout the banking sector. There is, however, substantial variation, with a handful of branches over 60 percent on this measure.

While the intermediation level is low, the summary statistics in Table 6 indicate that it is improving. The distribution of the rate of asset growth among Stanbic branches was almost identical to that for deposit growth. Annual deposit growth matched asset growth for the median branch at 11 percent. The rate of growth in total advances was much more rapid. Loans, overdrafts, and discounts at the median branch grew by an astounding 183 percent. Thus, the typical Stanbic branch was growing at a robust pace (11 percent per year), but the composition of its assets shifted abruptly toward lending. Much of this tremendous growth in lending is because many branches started from a low lending base. The combination of the preprivatization cleaning of the loan portfolio and BOU's prohibition on lending during the period of intervention meant that many branches had almost no loans on their books when they were acquired.²⁶

One might also be concerned that the growth in deposits was attributable to relatively wealthy savers placing a larger share of their assets in banks. If so, the goal to expand the savings opportunities for the less wealthy would not have been met. However, Table 6 also indicates that the number of depositors grew by 11 percent a year at the

We might expect this to be a problem if business generated outside of Kampala was being booked in Kampala (or in the provincial capital) after the privatization. If so, we would expect the growth in deposits and lending to be slower in non-urban districts. However, Table 7 below (and regressions in Tables 9 and 10) will show that deposit and loan growth were as swift (or swifter) in low-income districts and low-population density districts as in more affluent, densely populated districts.

²⁶ Readers might wonder why Stanbic's overall growth in real credit (20-40 percent since privatization) is so much smaller than the growth for branches. The key reason is that we are reporting a simple (un-weighted) average across branches, which over-emphasizes smaller non-urban branches, many of which had little credit on their books to begin with. And indeed, the figures for growth in total advances for branches outside Kampala (192 percent per year) are remarkably high in Table 7. Growth in total advances for Kampala branches (67 percent per year) is more instructive, because Stanbic had a presence there (and thus some loans on its books) at the time of privatization. The 67 percent figure is expressed in nominal terms; in real terms, it comes much closer to the 20-40 percent figure for real credit growth presented in Figure 4.

median branch.²⁷ Thus, the growth in deposits was accompanied by increased savings across economic strata.²⁸

A. Stanbic Branch Summary Statistics, Stratified by Income, Population Density, and Competition

Table 7 offers summary statistics that group branches by characteristics of the districts in which they reside. The first two rows indicate that the median Kampala branch is more profitable, has a higher share of loans to deposits, and a lower share of total expenses to assets than the median branch located outside that district. We focus on median values because outliers have substantial influence on the mean values for these indicators. Mean values do however appear in parentheses below the medians. Kampala branches also have more rapid growth in assets, deposits, and the number of depositors. However, branches outside Kampala hold a substantial edge in the growth of total advances (i.e., lending). Again, many of these branches started from a low credit base after privatization, which helps account for their high growth figures.

Outside of Kampala, district characteristics do not appear to have a large effect on the indicators in Table 7. For example, branches located in districts with above-median household expenditures (our proxy for income) perform similarly to branches in below-median income districts. Comparisons also tend to be similar when branches are stratified by district population density or by competitive pressures (measured as the share of non-Stanbic branches in a district). One slight exception is that profitability tends to be higher in high-income, high-density districts, where Stanbic comprises less than half of all branches.²⁹ A more notable exception to the general similarity of results for branches

²⁷ We discuss the median branch in these paragraphs because the mean values are heavily influenced by outliers. For example, newer branches started with very few depositors. Thus, the average branch had a 1700 percent increase in the number of depositors, but that is driven by 206,000 percent growth at one branch that had almost no depositors at the beginning of the period.

²⁸ It has been pointed out to us that some of Stanbic's growth in deposits might be attributable to its privileged position within the payments system and as processor of government payroll transactions. For example, we were told that increased pay for teachers might have automatically ended up in Stanbic accounts. We note, however, that Stanbic's growth in real deposits was not substantially different from the sector as a whole, and in fact was a bit slower: Stanbic, 8.0 percent in 2003, 3.3 percent in 2004; sector as a whole (excluding Stanbic), 16.7 percent in 2003, 8.7 percent in 2004. It therefore seems unlikely that any deposit 'windfalls' are having large effects on Stanbic.

²⁹ This could be because the high-income clients residing in those districts are better able to afford a wider array of financial services.

outside Kampala is the rapid growth in total lending in districts where Stanbic faces no competitors. Again, these areas might have been especially credit-starved during BOU's intervention of UCB. Aside from those exceptions, the figures in Table 7 indicate that Stanbic is pursuing a similar strategy in districts outside Kampala.

Regressions in Table 8 reinforce that conclusion. Neither the household expenditure variable nor district population density is significant in any specification. We present three types of regressions: least median squares, OLS with clustered standard errors, and robust regressions (that down-weight the influence of observations with abnormally large residuals). Because of the extremity of some outliers, the coefficients for the least median squares and robust regressions are likely to be more reasonable than for the models with clustering. In some instances, coefficients for the models with clustered standard errors are over ten times as large as those for the other estimation techniques (though not generally significant).

The share of non-Stanbic branches, our proxy for competitive pressure, also tends to be insignificant, except in Model 8.6 where it is significantly negatively associated with the ratio of loans to deposits. This provides another indication that more lending occurs in districts where Stanbic faces less competition. The most consistently significant results are the positive coefficients for the yearly dummy variables (2003 and 2004) in the ROA and Loans/Deposits regressions. Coupled with the general insignificance of the income, population density, and competitive pressures variables in those regressions, the yearly coefficients indicate an improvement over 2002 that all types of branches (outside Kampala) are enjoying. In the expense ratio regressions (Models 8.7-8.9), neither the district variables nor the year dummies are significant, which suggests little improvement on that measure for any type of branch. The branch-level results for expenses are consistent with those found at the bank level.

Asset growth regressions in Table 9 also indicate little cross-branch variation in outcomes. Household income, population density and the share of non-Stanbic branches never achieve significance at the 5 percent level in either the asset growth or loan growth (total advances) regressions. The 2004 dummy variable is significant in Models 1 and 3, which indicates acceleration in asset growth relative to 2003. In the growth models, the constant reflects the rate for the typical branch, and thus Models 1 and 3 indicate four to 6

percent annual growth in assets. Branches with more assets do have significantly more rapid asset growth, however. In lending growth regressions (Models 4 and 6), only the constant is significant at the 5 percent level, but its size (3.3 -3.9) indicates lending tripled or quadrupled in 2003 and 2004 at all types of branches. Again, the models with clustered standard errors (especially 5) produce especially large coefficients, due presumably to outliers.

The deposit growth regressions (Table 10) share some qualitative similarities with the asset growth regressions. Household expenditures, population density, and the share of non-Stanbic branches never achieve significance at the 5 percent level for deposit growth (Models 1-3) or growth in the number of depositors (Models 4-6). Larger branches have significantly more rapid deposit growth, but are not significantly different from smaller branches in growth in the number of depositors. For deposit growth, the constant implies 3-5 percent deposit growth in 2003, while the constant and the 2004 dummy together imply 14-18 percent growth in 2004.³⁰ For growth in the number of depositors, the constant implies 35-67 percent growth in 2003, and 13-28 percent in 2004. Therefore, the deposit growth in 2003 (just after privatization) tended to be skewed toward savers with smaller average deposit sizes. In sum, despite small differences in timing or magnitudes across indicators, the evidence presented in this section suggests that Stanbic is taking a uniform approach across all types of branches. This might be because to do otherwise would risk Stanbic's privileged position as banker to the government, which is likely to remain an important source of income in the future. If so, this suggests that by offering appropriate carrots governments in developing countries can help ensure that banks such as UCB continue to pursue the goal of wider access to financial services even after they are privatized.³¹

V. Conclusions

In many ways, the privatization of UCB to Stanbic might be expected to be successful. The government fully relinquished control to a strategic investor in an open sales process that allowed foreign-owned banks to participate. UCB ended up being sold

³⁰ Again, this refers to models 1 and 3 because those better control for outliers.

³¹ An alternative interpretation is that it made business sense for Stanbic to be known throughout the country for pursuing the same strategy (as evidenced by substantial investment in re-branding).

to Stanbic, a large South African bank. Previous studies have found that bank privatizations with these characteristics are generally more successful (Clarke, Cull and Shirley, 2005; Megginson, 2005a).

Although these factors provided reasons for optimism, there were also some potential pitfalls. Most important, because of UCB's large branch network, it faced little competition outside of Kampala. Moreover, the privatization of a dominant bank with an extensive branch network can be politically difficult, resulting in restrictions that harm bank performance in the medium term.

Despite these concerns, the privatization appears to have been relatively successful. The UCB portfolio was cleaned prior to sale and Stanbic has maintained the low share of NPLs that it inherited. Profitability and the rate of credit growth are also on par with that of other Ugandan banks—an improvement over UCB's preprivatization performance.

The empirical results also suggest that the sale has improved access to credit for some hard-to-serve groups. Although it started from a very low base due to restrictions on UCB lending during the period of BOU intervention, credit growth has been most rapid at branches located outside Kampala, especially in areas where Stanbic faces no local competitors. Deposit growth has been stronger at branches in Kampala, though the growth outside Kampala is substantial. As important, growth in the number of depositors matches or exceeds that for the level of deposits, which suggests that formal savings have increased across economic strata. Deposit growth is not therefore solely attributable to the relatively wealthy placing a greater share of their assets in banks. Moreover, Stanbic has maintained, and even slightly expanded, UCB's extensive branch network.

The banks' postprivatization portfolio allocation suggests that there has been a shift in Stanbic strategy. Since privatization, the share of lending devoted to agriculture has increased, while the shares of government securities and lending to manufacturing have declined. In part, the decline in holdings of government securities reflects changes in macroeconomic management as the government curtailed the supply of T-bills. Another part of the decline is likely attributable to the general tendency to hold fewer government securities after a bank privatization. By contrast, the decline in

manufacturing lending (a preprivatization strength for Stanbic) represents a true shift in strategy. This shift might also improve access to credit for other groups and sectors.

At the same time, a shift in strategy is not without its costs. Under the sales agreement, Stanbic was required to merge into a single operation the activities of both institutions within six months of closing the transaction. As a result, Stanbic's expense ratio has remained higher than that of other Ugandan banks. However, those expenses also reflect the costs of rebranding, that is, upgrading and making the branches acquired from UCB look like Stanbic branches. The upgrading also included installing a proprietary intrabank payments system. Though one could argue that by investing in improvements to its payments infrastructure Stanbic was establishing a barrier to entry for other banks, some other banks also are now clearing payments from remote parts of the country through the upgraded system. Of course, the price of access to the new system should be monitored over time. Because many of these costs are not recurrent, we expect that Stanbic's operating costs will decline in the future. Indeed, there are already signs of profitability improvements. In 2002, 37 percent of Stanbic branches were unprofitable (i.e., had negative ROA). This fell to 20 percent in 2003 and to 16 percent in 2004. This suggests that the additional revenue associated with a new strategy exceeds the additional costs in a growing number of districts.

Only time will tell the full tale, and concerns about market segmentation persist, but the early indications are that, if structured correctly, privatization of a large bank with an extensive branch network in a low-income country with a concentrated banking sector can yield substantial performance improvements. At the least, the results from this second attempt at UCB privatization are a vast improvement over the first attempt, in which the government maintained a controlling share and did not attract a high-quality purchaser.

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Table 1: African Banking Sector Development

Country	% Banking Assets, 3 Largest Banks (2003)	Deposit Money Bank Assets/GDP	Private Credit/GDP (Deposit Money Banks plus other financial institutions)
Angola	.88	.02	.02
Benin	.87	.12	.11
Botswana	.82	.18	.16
Burkina Faso	.76	.15	.14
Burundi	.93	.21	.20
Cameroon	.94	.11	.08
Central African Rep		.07	.05
Chad	1.00	.06	.04
Congo, Dem. Rep	.89	.01	.00
Congo, Rep.		.06	.05
Cote d' Ivoire	0.81	.23	.18
Ethiopia	.95	.28	.24
Gabon	1.00	.12	.08
Ghana	.71	.11	.07
Guinea-Bissau		.06	.06
Kenya	.58	.33	.26
Lesotho	1.00	.23	.13
Liberia		.14	.09
Madagascar	.76	.11	.08
Malawi	.81	.08	.07
Mali	1.00	.17	.15
Mauritania	.93	.23	.22
Mauritius	.74	.68	.56
Mozambique	.86	.13	.15
Namibia	.79	.40	.44
Niger	1.00	.05	.05
Nigeria	.44	.17	.13
Rwanda	.90	.11	.10
Senegal	.67	.21	.19
Seychelles	1.00	.94	.25
Sierra Leone	.92	.08	.02
South Africa	.75	.77	.72
Sudan	.82	.03	.02
Swaziland	.92	.14	.13
Tanzania	.57		
Togo(1998)	1.00	.19	.16
Uganda	.65	.05	.04
Zambia	.69	.13	.07
Zimbabwe	.64	.25	.27
Average	.82	.20	.15

Sources: Bankscope for column 1. Financial Structures Database for columns 2 and 3. Data in columns two and three for Chad and the Democratic Republic of Congo are for 2001; data for Togo are from 1998. The remaining data in all columns are for 2003. For Liberia and the Central African Republic, there were fewer than three banks in the Bankscope sample, and thus we could not compute a three-firm concentration ratio.

Table 2
Profitability Regressions
Dependent Variable, Quarterly ROA, 1996-2005

		Treat UCB and Stanbic as Separate Entities Prior to Privatization		Treat UCB and Stanbic as Virtual Merged Entity Prior to Privatization	
		Standard Errors Clustered at Bank Level		Standard Errors Clustered at Bank Level	
Explanatory Variable	(1)	(2)	Explanatory Variable	(3)	(4)
UCB Prior To Priv.	-.003 (0.47)	-.012** (2.82)	UCB+Stanbic Prior to Priv.	-.007 (1.47)	-.001 (0.10)
Stanbic Prior To Priv	.010*** (3.62)	.003 (0.34)	Stanbic at Privatization	-.003 (0.79)	-.002 (0.66)
Stanbic Post Priv	-.017 (1.69)	-.004 (0.34)	Quarters since Privatization	-.001* (1.82)	.0001 (0.05)
Total Assets USh 100 mil.	.036** (2.47)	.001 (0.07)	Total Assets USh 100 mil.	.035** (2.51)	-.001 (0.07)
Foreign Owned	.001 (0.17)	-.005 (0.81)	Foreign Owned	.001 (0.18)	-.005 (0.74)
Govt Secur/ Assets		.006 (0.20)	Govt Secur/ Assets		.005 (0.17)
<i>Shares of Lending</i>			<i>Shares of Lending</i>		
Agriculture		-.271*** (5.53)	Agriculture		-.276*** (5.57)
Construction		-.139** (2.51)	Construction		-.145** (2.55)
Infrastructure		-.046 (1.27)	Infrastructure		-.042 (0.98)
Manufacturing		-.073*** (3.85)	Manufacturing		-.076*** (3.90)
Mining		-.177 (1.47)	Mining		-.179 (1.46)
Trade		-.078*** (4.18)	Trade		-.082*** (4.04)
Other Services		-.079*** (3.37)	Other Services		-.082*** (3.34)
Constant	.005 (0.21)	.107** (2.52)	Constant	.006 (0.23)	.090*** (2.98)
R-Square	.04	.15	R-Square	.04	0.15
Observations	555	544	Observations	534	524

Notes: All specifications include year and quarter fixed effects (not shown). *, **, *** indicate significance at 10, 5, and 1 percent levels, respectively.

Standard errors used in computing t statistics are corrected for both heteroskedasticity and correlation across multiple observations of the same bank using a robust cluster method.

Table 3

Portfolio Quality Regressions					
Dependent Variable, Share of Nonperforming Loans, by Quarter 1996-2005					
Treat UCB and Stanbic as Separate Entities Prior to Privatization			Treat UCB and Stanbic as Virtual Merged Entity Prior to Privatization		
Explanatory Variable	Standard Errors Clustered at Bank Level		Explanatory Variable	Standard Errors Clustered at Bank Level	
	(1)	(2)		(3)	(4)
UCB Prior To Priv.	.056* (1.84)	.142*** (6.56)	UCB+Stanbic Prior to Priv.	.031 (0.26)	.016 (0.76)
Stanbic Prior To Priv	-.054*** (3.93)	-.010 (0.60)	Stanbic at Privatization	.006 (0.26)	-.007 (0.72)
Stanbic Post Priv	.054 (1.22)	.001 (0.05)	Quarters since Privatization	.003* (2.01)	-.003 (1.46)
Total Assets USh 100 mil.	-.090 (1.61)	.018 (0.66)	Total Assets USh 100 mil.	-.087 (1.66)	.030 (1.17)
Foreign Owned	.010 (0.28)	.060*** (3.86)	Foreign Owned	.009 (0.27)	.059*** (3.64)
Govt Secur/ Assets		.051 (1.23)	Govt Secur/ Assets		.054 (1.45)
<i>Shares of Lending</i>			<i>Shares of Lending</i>		
Agriculture		1.57*** (8.33)	Agriculture		1.59*** (8.26)
Construction		.305** (2.19)	Construction		.337** (2.34)
Infrastructure		.530*** (3.32)	Infrastructure		.491** (2.79)
Manufacturing		.385*** (4.23)	Manufacturing		.399*** (4.20)
Mining		1.28*** (2.91)	Mining		1.28*** (2.87)
Trade		.479*** (5.28)	Trade		.491*** (5.11)
Other Services		.487*** (5.12)	Other Services		.501*** (4.86)
Constant	.274* (1.91)	-.143 (0.61)	Constant	.275* (1.83)	-.548*** (5.49)
R-Square	.12	.38	R-Square	.11	.37
Observations	555	544	Observations	534	524

Notes: All specifications include year and quarter fixed effects (not shown). *, **, *** indicate significance at 10, 5, and 1 percent levels, respectively.

Standard errors used in computing t statistics are corrected for both heteroskedasticity and correlation across multiple observations of the same bank using a robust cluster method.

Table 4

Operating Costs Regressions					
Dependent Variable: Total Expenses/Total Assets, by Quarter 1996-2005					
Treat UCB and Stanbic as Separate Entities Prior to Privatization			Treat UCB and Stanbic as Virtual Merged Entity Prior to Privatization		
Explanatory Variable	Standard Errors Clustered at Bank Level		Explanatory Variable	Standard Errors Clustered at Bank Level	
	(1)	(2)		(3)	(4)
UCB Prior To Priv.	-.005 (0.83)	.010* (1.86)	UCB+Stanbic Prior to Priv.	.008 (1.65)	.010*** (3.08)
Stanbic Prior To Priv	-.013*** (4.42)	-.003 (0.68)	Stanbic at Privatization	.011** (2.46)	.006 (1.19)
Stanbic Post Priv	.031*** (3.33)	.022*** (3.41)	Quarters since Privatization	.002*** (3.59)	.001*** (3.89)
Total Assets USh 100 mil.	-.048*** (3.82)	-.018** (2.22)	Total Assets USh 100 mil.	-.047*** (3.91)	-.018** (2.18)
Foreign Owned	-.008 (1.29)	-.005 (1.13)	Foreign Owned	-.008 (1.29)	-.005 (1.18)
Govt Secur/ Assets		-.015 (0.73)	Govt Secur/ Assets		-.014 (0.71)
<i>Shares of Lending</i>			<i>Shares of Lending</i>		
Agriculture		.255*** (6.11)	Agriculture		.264*** (6.74)
Construction		.111** (2.50)	Construction		.176*** (3.31)
Infrastructure		.066** (2.26)	Infrastructure		.072** (2.32)
Manufacturing		.075*** (4.40)	Manufacturing		.081*** (4.95)
Mining		.172*** (3.27)	Mining		.176*** (3.31)
Trade		.098*** (4.93)	Trade		.105*** (5.60)
Other Services		.094*** (4.89)	Other Services		.100*** (5.58)
Constant	.046*** (6.48)	-.050** (2.25)	Constant	.045*** (6.31)	-.047** (2.32)
R-Square	.13	.28	R-Square	.12	.28
Observations	536	527	Observations	517	508

Notes: All specifications include year and quarter fixed effects (not shown). *, **, *** indicate significance at 10, 5, and 1 percent levels, respectively.

Standard errors used in computing t statistics are corrected for both heteroskedasticity and correlation across multiple observations of the same bank using a robust cluster method.

Table 5

Extension of Credit Regressions					
Dependent Variables: Real Credit Growth and Share of Lending to Agriculture, 1996-2005					
Treat UCB and Stanbic as Separate Entities Prior to Privatization			Treat UCB and Stanbic as Virtual Merged Entity Prior to Privatization		
Explanatory Variable	Standard Errors Clustered at Bank Level		Explanatory Variable	Standard Errors Clustered at Bank Level	
	Credit Growth	Agric. Share		Credit Growth	Agric. Share
	(1)	(2)		(3)	(4)
UCB Prior To Priv.	-.362*** (2.90)	-.038 (1.32)	UCB+Stanbic Prior to Priv.	-.369* (1.98)	.020 (1.12)
Stanbic Prior To Priv	-.161 (1.20)	-.021*** (2.91)	Stanbic at Privatization	.293 (1.68)	-.018 (1.05)
Stanbic Post Priv	.110 (0.50)	.012 (0.40)	Quarters since Privatization	.0002 (0.01)	.002 (1.71)
Total Assets USh 100 mil.	.115 (0.38)	-.016 (0.40)	Total Assets USh 100 mil.	.072 (0.25)	-.018 (0.43)
Foreign Owned	.119 (1.00)	-.073** (2.45)	Foreign Owned	.083 (0.74)	-.073** (2.45)
Constant	1.13*** (6.72)	.099*** (4.29)	Constant	1.16*** (6.55)	.095*** (4.26)
R-Square	.06	.22	R-Square	.05	.22
Observations	136	555	Observations	130	534

Notes: Credit growth is computed on an annual basis. The share of lending to agriculture is a quarterly measure. All specifications include year and quarter fixed effects (not shown). *, **, *** indicate significance at 10, 5, and 1 percent levels, respectively. Standard errors used in computing t statistics are corrected for both heteroskedasticity and correlation across multiple observations of the same bank using a robust cluster method.

Table 6

Stanbic Branch Level Performance: Summary Statistics						
	Mean	Median	1 st Percentile	25 th Percentile	75 th Percentile	99 th Percentile
Return on Assets	.024	.012	-0.20	.000	.029	0.52
Loans/Deposits	.139	.077	.000	.030	.206	.660
Expenses/Assets	.067	.045	.003	.034	.068	.526
Asset Growth	1.35	1.11	0.33	0.99	1.29	7.80
Growth in Total Advances	8.97	2.83	0.21	1.61	5.71	166.9
Deposit Growth	1.44	1.11	0.33	0.99	1.28	11.73
Growth in number of Depositors	18.01	1.11	.039	1.01	1.84	20.75

Note: Asset growth calculated as $\text{Assets}_t / \text{Assets}_{t-1}$. Thus 1.0 indicates no growth, while 1.1 indicates 10 percent growth. Growth in total advances, total deposits, and the number of depositors are calculated in the same manner.

Table 7: Stanbic Branch Performance, By Income, Population Density, and Competition

Branch Type	Return on Assets	Loans/ Deposits	Expenses/ Assets	Asset Growth	Growth in Total Advances	Deposit Growth	Growth in Number of Depositors
Kampala (n=44)	.016 (.066)	.104 (.164)	.042 (.112)	1.29 (1.82)	1.67 (7.85)	1.27 (2.32)	1.27 (82.0)
Outside Kampala (n=153)	.009 (.013)	.072 (.132)	.046 (.054)	1.11 (1.23)	2.92 (9.22)	1.10 (1.23)	1.11 (1.71)
<i>Breakdown Outside Kampala</i>							
<i>Income</i>							
Below Median Income (n=78)	.008 (.011)	.067 (.117)	.044 (.052)	1.11 (1.34)	3.14 (9.33)	1.11 (1.35)	1.10 (1.75)
Above Median Income (n=75)	.011 (.015)	.078 (.148)	.050 (.056)	1.10 (1.11)	2.87 (9.11)	1.10 (1.11)	1.15 (1.65)
<i>Population Density</i>							
Below Median Population Density (n=78)	.007 (.009)	.075 (.129)	.044 (.051)	1.17 (1.17)	2.88 (10.52)	1.15 (1.17)	1.11 (1.53)
Above Median Population Density (n=75)	.014 (.017)	.071 (.136)	.047 (.057)	1.08 (1.30)	2.93 (7.88)	1.08 (1.30)	1.11 (1.87)
<i>Competition</i>							
No Competitors (n=77)	.007 (.006)	.077 (.138)	.044 (.050)	1.12 (1.38)	4.13 (10.52)	1.11 (1.38)	1.10 (1.96)
Stanbic > 50% of total branches (n=18)	.010 (.016)	.060 (.088)	.068 (.080)	1.19 (1.16)	1.97 (2.00)	1.19 (1.14)	1.11 (1.36)
Stanbic 0-50% of total branches (n=58)	.016 (.020)	.073 (.139)	.046 (.051)	1.05 (1.06)	2.43 (9.17)	1.05 (1.06)	1.16 (1.46)

Note: Table reports median values. Mean values are in parentheses.

Table 8: Stanbic Branch-Level Regressions

Variable	Return on Assets			Loans/Deposits			Total Expenses/Total Assets		
	Least Median Squares	Clustered Standard Errors	Robust Regression	Least Median Squares	Clustered Standard Errors	Robust Regression	Least Median Squares	Clustered Standard Errors	Robust Regression
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Household Expenditures (millions US\$)	-.0029 (0.05)	.023 (0.26)	.0014 (0.03)	.105 (0.65)	.191 (0.65)	.070 (0.46)	.056 (1.26)	.016 (0.31)	.042 (1.03)
Population Density (millions/Km Sq)	.132 (0.06)	8.83 (0.97)	.336 (0.20)	.487 (0.07)	-2.21 (0.18)	.477 (0.08)	-1.92 (1.06)	12.10 (1.37)	-2.05 (1.25)
% Non-Stanbic Branches	.006 (0.73)	.005 (0.45)	.007 (0.94)	-.027 (1.01)	-.044 (1.17)	-.056** (2.17)	.006 (0.75)	-.003 (0.33)	.005 (0.73)
2003	.009* (1.66)	.062* (1.87)	.009** (2.32)	.039** (2.48)	.035*** (3.02)	.043*** (2.90)	.005 (1.24)	-.002 (0.15)	.006 (1.57)
2004	.013** (2.54)	.030*** (3.66)	.014*** (3.36)	.200*** (12.58)	.203*** (7.85)	.156*** (10.37)	.001 (0.30)	-.017 (0.90)	.001 (0.28)
Total Assets (100 million US\$)	.0175*** (2.79)	-.030 (0.68)	.073** (2.47)	.037 (1.51)	.117*** (3.17)	.103*** (4.18)	-.044*** (5.58)	-.102* (1.98)	-.036*** (5.03)
Constant	.001 (0.24)	-.022 (1.31)	.001 (0.24)	.023 (0.95)	.034 (0.96)	.042* (1.96)	.039*** (6.31)	.062*** (4.19)	.041*** (7.23)
R-square	.04	.06		.24	.36		.05	.08	
Prob > F			0.01			0.00			0.00
Observations	197	197	197	196	196	196	197	197	197

*, **, *** indicate significance at 10, 5, and 1 percent levels, respectively.

Table 9: Stanbic Branch-Level Asset Growth

Variable	Asset Growth			Growth in Total Advances		
	Least Median Squares	Clustered Standard Errors	Robust Regression	Least Median Squares	Clustered Standard Errors	Robust Regression
	(1)	(2)	(3)	(4)	(5)	(6)
Household Expenditures (millions US\$)	.109 (0.13)	.142 (0.16)	.242 (0.48)	-1.74 (0.22)	-22.4 (0.80)	-3.41 (0.62)
Population Density (1,000s/Km Sq)	.014 (0.43)	.124* (1.70)	-.010 (0.49)	-.056 (0.17)	1.06 (0.79)	.067 (0.29)
% Non-Stanbic Branches 2004	-.080 (0.60)	-.502 (1.30)	-.060 (0.71)	-1.09 (0.77)	-2.70 (0.41)	-1.60* (1.74)
Total Assets (100 million US\$)	.118* (1.76)	.355 (1.52)	.088** (2.11)	.905 (1.29)	3.54 (0.82)	.345 (0.75)
Constant	.268*** (3.20)	.077 (0.19)	.396*** (5.39)	-.010 (0.01)	-4.75* (1.79)	.037 (0.04)
R-square	1.06*** (9.58)	1.50*** (8.54)	1.04*** (15.14)	3.30*** (3.01)	11.29 (1.52)	3.90*** (5.20)
Prob > F	.03	.07	0.00	.01	.01	0.14
Observations	128	128	128	125	125	125

*, **, *** indicate significance at 10, 5, and 1 percent levels, respectively.

Asset growth calculated as $\text{Assets}_t / \text{Assets}_{t-1}$. Thus 1.0 indicates no growth, while 1.1 indicates 10 percent growth. Growth in total advances is calculated in the same manner.

Table 10: Stanbic Branch-Level Deposit Growth

Variable	Deposit Growth			Growth in Number of Depositors		
	Least Median Squares	Clustered Standard Errors	Robust Regression	Least Median Squares	Clustered Standard Errors	Robust Regression
	(1)	(2)	(3)	(4)	(5)	(6)
Household Expenditures (millions USH)	.134 (0.21)	.374 (0.39)	.239 (0.50)	-.613 (0.68)	-44.1 (0.89)	-2.13 (1.62)
Population Density (millions/Km Sq)	-.0038 (0.14)	.228* (1.70)	-.010 (0.49)	.049 (1.32)	16.40 (1.04)	.087 (1.61)
% Non-Stanbic Branches 2004	-.059 (0.56)	-.641 (1.51)	-.059 (0.74)	.028 (0.18)	17.63 (0.99)	.062 (0.28)
Total Assets (100 million USH)	.126** (2.34)	.157 (0.47)	.109*** (2.78)	-.218*** (2.76)	29.19 (0.98)	-.387*** (3.58)
Constant	.308*** (4.60)	-.321 (0.58)	.399*** (5.72)	-.094 (0.66)	-.625 (0.98)	.123 (0.58)
	1.05*** (11.75)	1.25*** (6.49)	1.03*** (15.87)	1.35*** (10.85)	-10.74 (0.83)	1.67*** (9.37)
R-square	.03	.07		.00	.05	
Prob > F			0.00			0.01
Observations	127	127	127	127	127	126

*, **, *** indicate significance at 10, 5, and 1 percent levels, respectively.

Deposit growth calculated as $\text{Deposits}_t / \text{Deposits}_{t-1}$. Thus 1.0 indicates no growth, while 1.1 indicates 10 percent growth. Growth in the number of depositors is calculated in the same manner.

APPENDIX

Figure 8: Uganda Branch Network by District, 2000

DISTRICT/BANK	UCBL	DFCU	Nile	Allied	CERUDEB	NBC	Orient	Barclays	Baroda	Stanbic	Standard	Tropical	Transafri	Crane	Cairo	Diamond	Citibank	Total
ADJUMANI	1																	1
APAC	1																	1
ARUA	1				1													2
BUNDIBUGYO	1																	1
BUSHENYI	3																	3
BUSIA	1																	1
GULU	1																	1
HOIMA	1				1													2
ISHAKA																		
IGANGA	1								1									2
JINJA	1			1			1		1			1	1		1			7
KABALE	1				1	1												3
KABAROLE	1				1													2
KALANGALA	1																	1
KAMPALA	14	2	2	2	2	1	2	2	2			3	1	2	1	1	1	39
KAMULI	1																	1
KAPCHORWA	1																	1
KASESE	1				1													2
KIBALE	1																	1
KIBOGA	1																	1
KISORO	1																	1
KITGUM	1																	1
KOTIDO	1																	1
KUMI	1																	1
LIRA	1				1													2
LUWERO	1	1			1													3
MASAKA	1	1			1							1						4
MASINDI	2																	2
MBALE	1				1				1			1						4
MBARARA	1		1		1													3
MOROTO	1																	1
MOYO	2																	2
MPIGI	4													2				6
MUBENDE	2				1													3
MUKONO	2																	2
NEBBI	2																	2
NTUGAMO	1											1						2
PALLISA	1																	1
RAKAI	2				1													3
RUKUNGIRI	2																	2
SOROTI	1				1													2
TORORO	2				1													3
TOTAL	67	4	3	3	16	2	3	2	5			6	3	4	2	1	1	123
Sub-Branches/ Agencies	2							2		1								5

Figure 9: Ugandan Branch Network by District, 2005

DISTRICT/BANK	Stanbic	DFCU	Nile	Allied	CERUDEB	NBC	Orient	Barclays	Baroda	Standard	Tropical	Crane	Cairo	Diamond	Citibank	Total
ADJUMANI	1															1
APAC	1															1
ARUA	1	1			1											3
BUGIRI	0				1											1
BUNDIBUGYO	1															1
BUSHENYI	1															1
BUSIA	1															1
BWAMIRAMIRA	1															1
ENTEBBE	2		1		1		2									6
FORT PORTAL	1				1											2
GULL	1				1											2
HOIMA	1				1											2
IBANDA	1															1
ISHAKA	1				1											2
IGANGA	1															1
JINJA	1		1	1	1		1		1	1	1	1				8
KABALE	1				1	1										3
KABAROLE	1															1
KABWOHE	1															1
KALANGALA	1															1
KAMPALA	20	5	14	4	12	1	4	6	2	5	1	24				98
KAMULI	1															1
KAPCHORWA	1															1
KASESE	1				1											2
KIBALE	1															1
KIBOGA	1				1											2
KIHIHI	1															1
KISORO	1															1
KITGUM	1															1
KYENJOJO	0				1											1
KOBBOKO	1															1
KOTIDO	1															1
KYOTERA	1				1											2
KUMI	1															1
LIRA	1	1			1											3
LUGAZI	1															1
LUWERO	1															1
LYANTONDE	1															1
MASAKA	1	1			1						1					4
MALABA	1															1
MASINDI	1															1
MBALE	1				1				1	1		1				5
MBARARA	1		1		1				1	1						5
MITYANA	1				1											2
MOROTO	1															1
MOYO	1															1
MPIGI	1															1
MUBENDE	1															1
MUKONO	1		1		1											3
NEBBI	1															1
NTUGAMO	1															1
PAKWACH	1															1
PALLISA	1															1
RAKAI	0															0
RUKUNGIRI	1					1										2
SOROTI	1					1										2
TORORO	1					1										2
TORORO	1					1										2
WOBULENZI	0				1											1
TOTAL	74	8	18	5	34	2	7	6	6	8	3	26	0	0	0	197