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**Firm Level Investment: Trends, determinants and  
constraints**

Charles A. Abuka and Kenneth A. Egesa  
**Bank of Uganda**

Imelda Atai  
**Uganda Bureau of Statistics**

Marios Obwona  
**Economic Policy Research Centre**

March 2006



**Economic Policy Research Centre (EPRC)**

51 Pool Road Makerere University Campus, P. O. Box 7841 Kampala, Uganda  
Tel: 256-41-541023, Fax: 256-41-541022, Email: [eprc@eprc.or.ug](mailto:eprc@eprc.or.ug)

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## Executive Summary

1. This report provides an analysis of firm level investment, its determinants and constraints using the Uganda Business Inquiry (UBI) Survey conducted by the Uganda Bureau of Statistics and the private sector investment surveys conducted by Bank of Uganda for 2001/2002 and 2002/2003 periods. The investigation builds on earlier work by Reinikka and Svensson (2001) and Gauthier (2001) to suggest the main factors that encourage or constrain private investment at the micro level in Uganda. The study documents aggregates for a number of firms that responded, their types and their levels of investment, capacity utilization, size, age, form of financing, turnover, the age structure of new capital and evidence of any technological improvement.

2. Using broad sectoral distributions, investment and employment levels for analysis, the data shows that slightly more than half of Ugandan enterprises are medium sized in terms of the number of employees. Most firms had 6 to 20 workers. Only 9.1 percent of the firms had in excess of 50 employees, while about 30.2 percent of firms had between 21 and 50 employees. Furthermore, the largest single categories of firms, about 45 percent were set up between 1992 and 2001 and were relatively small with investment levels lower than US\$ 0.1 million. Only 3.4 percent of the enterprises reported investment above US\$ 1.0 million. This suggests that while the level of investment in Ugandan firms is predominantly low, there was a general increase in both the number of investments and the levels of investment after 1992.

3. Given the nature of the data available, only a baseline investigation of the determinants of investment was effected. Some regression and correlation analysis from the UBI and Bank of Uganda survey datasets was effected to generate indications of the factors that drove investment. Some of the factors investigated included and were not limited to capacity utilization, nature and source of investment finance, public capital and role of risk. In regard to these issues, the study finds that turnover; profit and credit are significant determinants of firm level investment. The large significant effect of profits on investment suggests that credit constraints are still present among firms. The results also show that the profit effect is larger for small and medium sized enterprises compared to large firms. However, contrary to expectation, credit was not a significant factor on investment for small and medium sized firms. It is possible that small and medium sized firms use own savings and profits as sources of capital rather than credit. This would imply that the credit is required to ease temporary cash flow problems as opposed to new capital formation. Firms located outside the central region were more likely to invest because investment ventures outside the central region usually entailed heavier outlays on capital at the initial stages especially for infrastructure<sup>2</sup>.

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<sup>2</sup> Extreme cases have occurred where new firms have had to construct roads, generate their own electricity and water. An examples is Kasese Cobalt Company limited which generates its own electricity and water.

Large firms were also more inclined to reinvest over time as opposed to small and medium sized enterprises. This finding could be attributed to easier access to credit for large firms in addition large firms could also be investing more from retained earnings. Higher profitability tended to be associated with higher levels of investment. Size remains a significant determinant of investment in Uganda. The effect of sector location is also found to be significant as shown by the dummy variables for firms in agriculture, manufacturing and services. Firms within manufacturing tended to invest less over time compared to firms within agriculture and services.

4. Uganda micro level investment data shows that about 74 percent of the firms invested in manufacturing, wholesale and retail trade and other business and personal services sectors. However, 62.3 percent of the investments were less than US\$ 0.1 million. In terms of attracting large investments that are in excess of US\$ 2.5 million, manufacturing, wholesale and retail and other business and personal sectors dominated with other business and personal services holding the largest share. Overall the services sector appears to comprise the largest share of investment followed by manufacturing and agriculture with mining having the least share. Interesting results appear with respect to productivity. When expressed in terms of investment as a ratio to gross output, small firms had higher output relative to the capital employed with a ratio of 1.96 compared to 0.55 for large firms. Small (employing 6 to 20 workers) and medium (employing 21 to 50 workers) had similar ratios.

5. Over 60 percent of the enterprises that provided responses on the period they were set up were less than 10 years old. This implies that much of the capital stock is less than 10 years old. The ICA report also indicates that more than 40 percent of the manufacturing firms had capital stock averaging less than 5 years old. This contrasts with most of the other Sub-Saharan African countries where a large share of the capital stock is more than 20 years old. The overall average capital per worker is about US\$ 4,020 which shows a low capital intensity compared to Uganda's neighbors Kenya and Tanzania. In terms of distribution of capital per worker among different firm sizes, large firms (employing 50 or more workers) have the least at US\$3,430 while micro firms (employing less than 5 workers) have the highest.

6. A number of strategies are required to reduce transactions costs that affect investors in the economy if investment and productivity are to grow. Areas requiring urgent attention relate to infrastructure services, the operating environment, the investment climate, the financial sector, firm level productivity and provision of external finance for acquisition of capital, skills development and technology adoption. It is important to integrate these policies into a broad program of reform and economic transformation for policy implementation. An important issue regarding regional inequality and poverty that requires to be tackled is also reflected in the location of firms. About 70 percent of the firms are located within the central region, followed by western region with 13 percent and eastern and northern regions each

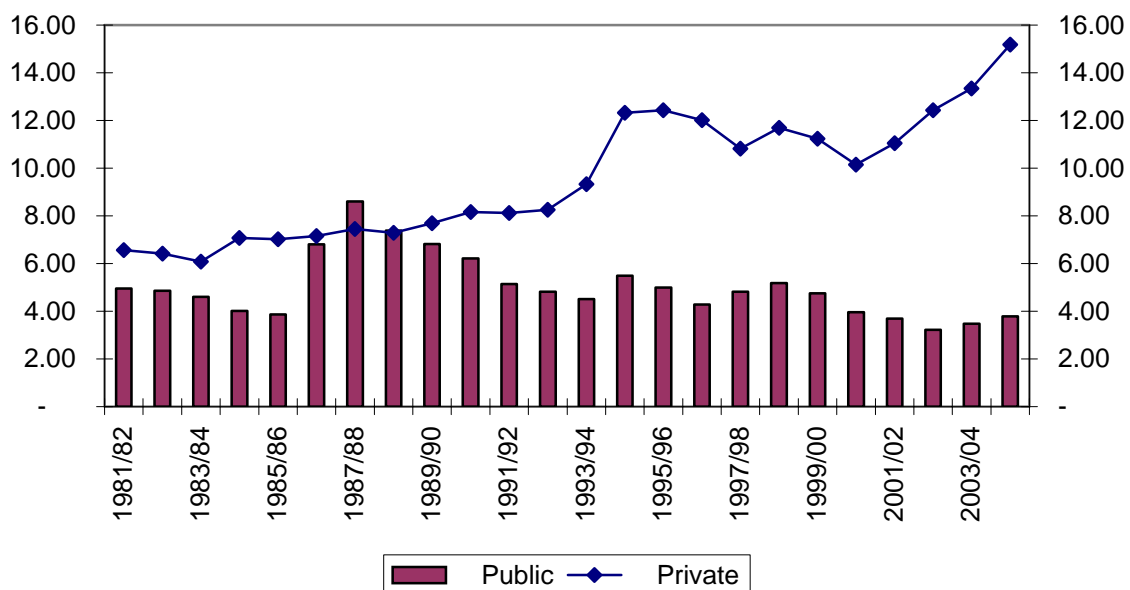
with almost equal shares of the balance. A cross tabulation of investment by region depicts the bias in location of investments towards the central region. In particular, no ventures in excess of US\$ 1.0 million are located in the northern region, which can be attributed to the instability caused by civil war. The Eastern region has similarly had a very small share of 0.2 percent of investments in excess of US\$ 1,0 million. A special five-year programme targeting the Northern and Eastern regions of the country is required to attract investment in these areas and alleviate poverty.



## I. Background issue and the research problem

7. The composition of investment in Uganda appears to have altered significantly due to macroeconomic developments over the last two decades. Between 1986/87 and 1991/92, public investment was equivalent to an annual average of 7.6 percent of GDP while private investment was 8.5 percent of GDP. In the last 12 years private investment increased to 11.9 percent of GDP during the first four years (1993/94 to 1996/97) and has since stagnated at this level. Nonetheless, the decline in public sector investment during the last 7 years (1997/98 to 2004/05) to an average of 4.1 percent of GDP implies that private investment is now nearly three times the level of public investment. Part of the decline in public investment can be attributed to government's privatization policy. However, the decline in total fixed capital formation as a share of GDP over the last eight years from an average of 17.2 percent between 1993/94 to 1996/97 to an average of 15.9 percent for the period 1997/98 to 2004/05 suggests that there are other reasons in addition to the role of privatization during this period that explain the general slowdown in total investment.

**Figure 1: Public and private investment as a share of GDP**



Source: Uganda Bureau of Statistics

8. The findings of the World Bank, RPED investment climate survey for Uganda 2002/03, show that at the firm level, 42.3 percent of equipment used in manufacturing was less than 5 years old while 35 percent was between 5 and 10 years old. In addition, 85.4 percent of the firms surveyed had been set up through own savings. These findings suggest that in spite of the successes achieved in boosting investment from the very low levels of the 80's by a wave of macroeconomic reforms that were pursued by government particularly in trade and foreign exchange liberalization, there is still need to raise investment further to levels of 30 percent of GDP recorded in some fast growing Asian economies. Moreover, with the passage of time

government shifted towards increasing social spending. The shift to prioritize social spending is likely to persist if the Millennium Development Goals (MDG's) are to be achieved. This implies that the growth in investment will need to be driven by the private sector's effort. However, this should be matched by increased performance of the public sector investment in complimentary infrastructure that reduces the cost of doing business. The basic reason is that improved performance enables firms to increase wages and generate jobs, and thereby contribute to development and poverty reduction.

9. Limitations on domestic resource mobilization, which is the main source of private investment, needs to be seriously resolved in addition to addressing other sector specific constraints to investment through a well-coordinated set of second-generation reforms. Firm surveys have been used in a number of studies to address microeconomic constraints to investment (Biggs and Srivastava (1997), Reinikka and Svensson (2001) and Gauthier (2001)). In particular key components of the investment climate such as the institutional, policy, and regulatory environment in which firms operate, quality of infrastructure, the nature of business regulations and their enforcement, the prevalence of credit constraints, the quality of governance, general conditions for private investment and enterprise growth, economic freedom, country credit ratings, human development, environmental sustainability and civil rights are all examples of recently studied dimensions of the investment climate (Soderbom, 2005). The World Bank studies such as the Regional program on Enterprise Development Surveys (RPED) in Burundi, Cameroon, Cote d'Ivoire, Ghana, Kenya, Tanzania, Uganda, Zambia, and Zimbabwe and Investment Climate Assessment (ICA) surveys and the *World Business Environment Survey* (WBES) across a wide range of countries in SSA and elsewhere have all been useful in filling the gap. Bigsten et al (1999) conducted a study to establish whether investment was sensitive to changes in cash flow among firms in four African countries. The evidence they found indicated that there was a significant profit effect on investment, which suggested that credit constraints were present. Reinikka and Svensson (2001) used data for the period from 1996-97 collected from a sample of Ugandan manufacturing firms and found a larger profit effect among smaller firms, which is in agreement with the notion that credit access is more of a problem for small firms. In contrast, Fafschamps and Oostendorp (2002) and Söderbom (2002) show that the cash-flow sensitivity of investment is low in Zimbabwe and Kenya respectively even among small firms. Here the debate is inconclusive.

10. The other factor that has featured prominently in the literature on private investment is uncertainty particularly for irreversible investments. Theories of irreversible investment under uncertainty predict that investment will be slower to respond to demand shocks if uncertainty is relatively high. Pattillo (1998) in a study on Ghanaian manufacturing firms over the period 1994 to 1995, tested various hypotheses from models of irreversible investment under uncertainty. As a measure of uncertainty, the variance of entrepreneurs'

subjective probability distribution over future demand was used and the findings show that uncertainty has a negative effect on investment. In addition, this effect was shown to be more pronounced for firms with more irreversible investment. Darku (2001) followed the same methodology using firm-level data from a survey in Uganda in 1998 to investigate the effect of uncertainty on irreversible investment. Broadly similar results to the Pattillo (1998) were obtained.

11. Bigsten et al (1999) also argue that size may constrain investment with a smaller impact on large firms. Reinikka and Svensson (2001) confirm the effect of size on investment in Uganda in addition to determining the effects of other factors such as age, location and sector. In the case of age, a negative significant effect was found while regional and sector location effects were found not to be significant in determining investment. In addition to these studies, there have been investigations on determinants of regional variation in investment based on firm level data. These studies have identified a number of factors that play an important role in determining investment such as size and age of firms, workers skills and type of financing. Kangasharju (1998) and Gaygisz and Koksall (2003) are two of such studies conducted for Finland and Turkey respectively using techniques for analysis of both cross section and panel data. Kangasharju (1998) finds average size of firms to have a significant positive impact on new firm formation in addition to market size while Gaygisz and Koksall (2003) show labor force skills in addition to firm size to have significant effects on formation of new firms.

12. The general picture that emerges from the research on investment in Africa is one where uncertainty has played a big role whereas the debate on the effect of credit is not conclusive. However, there is some evidence that lack of credit has been a problem for small firms despite the relatively high demand for credit. The profit effect on investment is larger for small firms again compared to big firms and this is linked to better access to credit for large firms. Age and size of firms also affect investment while no conclusive evidence has been found for effects on regional and sector location. The availability of new data at a firm level compiled by the Uganda Bureau of Statistics UBI survey and the Bank of Uganda investment surveys offers an opportunity to establish whether some corrective action has been taken by government to address firm level constraints to investment highlighted by previous studies.

13. Historically, investment in Uganda was spurred by Government under the strategy to promote industrialization at the expense of agriculture, viewing the former as having both backward and forward linkages, a potential to create market for the other sectors and creation of more employment. The Uganda Development Corporation (UDC) formed by the British in 1952 enhanced governments' role in the industrialization process of the country. The state and a few Asian private investors like the Madhvani and Metha groups boosted the industrial growth of the country in the post independence era. The privatization of state owned enterprises marked an end to direct participation of the public sector in investment. The role

of the public sector in investment has now gradually been reduced to that of facilitating private investment by addressing some of the constraints to private investment. Issues of corruption, financing constraints, tax obstacles such as tax rates and tax administration that have been mentioned in a number of studies (Private sector Investment Survey 2003 and Investment Climate Assessment 2004).

14. Nonetheless, while the public sector has largely withdrawn from engagement in areas where the private sector has an edge there has been a relatively inadequate response the private sector in seizing the opportunities created. Openings in the provision of social and infrastructure services - which are by far the leading constraints to investment - have not been fully exploited. In view of the fact that government policies and actions have been consistent with the overall objective of establishing the private sector as the provider of employment, it is important to fully understand the determinants of private sector investment. It is important to analyze the institutional and regulatory frameworks as well as the firm-level factors that have an impact on investment in greater detail and to relate them to firm decisions on investment, employment creation and expansion.

## **II. Data and Methodology**

16. Data for the study was obtained from two sources. The first source was the Uganda Business Inquiry (UBI) Survey. This survey was conducted in 2000 and 2001 and covered Agriculture, Mining and Quarrying, Manufacturing, Electricity, Gas and Water supply, Construction, Wholesale and Retail Trade, Hotels and Restaurants, Transport and Communication; and Other Business and Personal Services and covered the whole country. Establishments in both the formal and informal sectors were covered on a sample basis in the whole country. The second source was data collected by the Bank of Uganda, Uganda Investment Authority and the Bureau of Statistics for the 2001/2002 and 2002/2003 periods. The last comprehensive survey was conducted from January 29, 2003 to September 10, 2003. It was aimed at improving the Statistics of the Balance of Payments and the International Investment Position<sup>3</sup>. A total of 765 enterprises or 71.6 percent responded.

17. The study combined both descriptive and empirical analysis of firm-specific determinants of investment such as age, size, sector, location, ownership, and profitability and access to credit. In carrying out a cross-sectional analysis, matrices of correlation coefficients were computed to establish how the different firm-specific characteristics relate to investment vis-a-vis the hypothesized relations. In the cross-sectional analysis, multivariate linear models were estimated for each of the years covered by the surveys using generalized least squares (GLS) regression.

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<sup>3</sup>Data from this source was biased towards firms owned by non-resident and those under joint ownership between residents and non-residents. Subsequently, the sample does not adequately facilitate the analysis of the effect of ownership (resident and non-resident) on investment.

### **III. Microeconomic environment and firm level investment**

18. Investment rates have been on the rise during the last two decades averaging 10.2 percent per annum at constant prices only slowing down in the last five years to an average of 7.1 percent per annum. In line with the rising investment rates, exports have grown from 7.8 percent of GDP in 1990/91 to 12.6 percent of GDP in 2004/05 and firms, especially the largest ones, are operating at higher efficiency. Nonetheless, Ugandan firms have a long way to go to compete with firms in other parts of the world as productivity has remained low (ICA, 2004). The business climate in Uganda is improving although corruption, tax policy, access to finance and insufficient electricity remain severe constraints to the private sector (BOU, 2004).

#### ***3.1 Productivity and performance of firms***

19. In a sample of 147,160 firms comprised of 470,386 employees, total value added during 2000/01 was equivalent to a median annual amount of 61.4 expressed as a percentage of gross output. The least value addition was in the building and construction sector amounting to only 26.6 percent of gross output while mining and quarrying, utilities and finance and insurance had the largest value addition of 85.5, 77.4 and 77.1 percent of gross output. The high value addition in utilities was due to large investments in electricity by government contributing significantly to the fixed assets in the sector. In both mining and quarrying and finance, the highest share of value added was in staff costs.

**Table 1: Performance indicators of by sector**

Sector	Ratio of value added to gross output %	Value added per worker (Shs'000)	Ratio of wages to value added
Agriculture	45.6	2,195.0	0.53
Fishing	63.3	2,372.8	0.45
Mining and Quarrying	85.5	1,563.4	0.80
Food Processing	35.7	7,585.2	0.23
Other Manufacturing	34.9	6,185.4	0.27
Utilities	77.4	40,293.7	0.33
Building and Construction	26.6	7,178.1	0.52
Vehicle Sales	66.1	3,464.8	0.28
Wholesale Trade	61.9	7,844.0	0.20
Retail Trade	62.2	2,750.9	0.23
Hotels and Restaurant	41.9	2,420.1	0.36
Transport	43.1	9,698.2	0.37
Posts and Telecommunications	65.8	37,274.0	0.28
Finance and Insurance	77.1	37,882.3	0.42
Business Services	60.8	5,719.3	0.44
Community, Social & Personal Services	43.2	2,939.8	0.53
<b>Median</b>	<b>61.4</b>	<b>5,952.4</b>	<b>0.37</b>

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

20. At the aggregate level, the median value added per worker was 5.952 million shillings equivalent to US\$3,376 which is still below that for India of US\$ 3,432 and China US\$ 4,397. Utilities, finance and insurance and posts and telecommunications sectors had the highest value addition per worker, which can be attributed to the relatively highly skilled manpower employed in these sectors. The lowest value added per worker was in mining and quarrying equivalent to US\$886 and reflects the low productivity of the sector due to the reliance on mainly manual production processes. In general, more than half of the sectors had less than US\$2000 value added per worker reaffirming the generally low labor productivity in comparison to some fast growing developing countries such as Mauritius, China and India. Nonetheless, the low labor productivity would have been offset if costs of labor were quite low. However, this is not the case in many of the sectors when a measure of output per worker relative to their wages is determined. Both the average and median values of this measure are similar at 0.37 and 0.39 respectively and are high relative to the level of development. The East Asian countries at similar levels of development in the 1960's and 1970's had ratios of between 0.16 and 0.35.

**Table 2: Operating surplus by sector (thousand shillings), 2000/2001**

Sector	Net Profit & Bad debts	Interest	Other Items	Operating Surplus	Gross Output	OP/GO Percentage
Agriculture	6,009,699	1,878,597	2,088,348	9,976,644	66,870,442	14.9
Fishing	2,355,971	-	3,438	2,359,409	6,744,613	35.0
Mining and Quarrying	640,018	1,725	500	642,243	3,924,454	16.4
Food Processing	140,506,365	48,730,737	20,778,301	210,015,403	912,140,282	23.0
Other Manufacturing	125,134,756	28,313,267	12,548,963	165,996,986	812,823,135	20.4
Utilities	17,137,296	31,270,447	722,673	49,130,416	145,255,301	33.8
Building and Construction	10,293,336	3,754,783	626,533	14,674,652	172,497,531	8.5
Vehicle Sales	77,578,708	3,595,431	1,119,839	82,293,978	189,143,430	43.5
Wholesale Trade	92,738,903	19,208,691	4,596,418	116,544,012	267,906,998	43.5
Retail Trade	327,718,143	5,694,725	2,622,072	336,034,940	714,375,510	47.0
Hotels and Restaurant	86,756,033	2,892,173	1,344,801	90,993,007	371,446,262	24.5
Transport	39,785,882	4,562,587	1,651,275	45,999,744	255,823,964	18.0
Posts and Telecommunications	40,018,195	9,139,002	3,996,927	53,154,124	162,844,236	32.6
Finance and Insurance	98,214,482	24,061,783	6,998,461	129,274,726	325,996,085	39.7
Business Services	37,598,820	4,854,308	634,785	43,087,913	155,282,080	27.7
Community, Social & Personal Services	38,219,438	818,092	2,127,288	41,164,818	232,444,170	17.7
<b>Total</b>	<b>1,140,706,045</b>	<b>188,776,348</b>	<b>61,860,622</b>	<b>1,391,343,015</b>	<b>4,795,518,493</b>	<b>29.01</b>

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

21. Overall profitability of firms expressed in terms of operating surplus as a ratio of gross output was estimated at an average of 29 percent. The most profitable sectors were retail trade, wholesale trade, vehicle sales and Finance and insurance while building and construction was the least profitable at 8.5 percent. Trade continued to dominate despite its low contribution to employment and value addition. In general, firms involved in the provision of services appear to be doing well as profitability was at an average of 35 percent of gross output explaining the high private sector investment that has gone into the sector in the recent past.

**Table 3: Percentage ownership of business establishments by sector, 2000/01**

Sector	Residents		Non-Residents		Total	
	Government	Nationals	Non-Nationals	Nationals		Non-Nationals
Agriculture	0.4	95.7	1.4	1.0	1.4	100.0
Fishing	-	100.0	-	-	-	100.0
Mining and Quarrying	-	100.0	-	-	-	100.0
Food Processing	0.7	84.3	6.9	0.4	7.7	100.0
Other Manufacturing	0.9	71.1	15.0	1.4	11.7	100.0
Utilities	100.0	-	-	-	-	100.0
Building and Construction	2.7	71.0	12.8	1.8	11.7	100.0
Vehicle Sales	-	86.2	7.4	-	6.4	100.0
Wholesale Trade	-	67.3	29.9	-	2.8	100.0
Retail Trade	-	90.5	6.7	0.2	2.7	100.0
Hotels and Restaurant	0.2	71.1	14.8	0.3	13.6	100.0
Transport	0.7	71.0	5.3	0.3	22.7	100.0
Posts and Telecommunications	9.9	33.3	15.8	-	41.0	100.0
Finance and Insurance	5.4	78.0	3.7	1.4	11.5	100.0
Business Services	0.5	81.6	7.6	0.2	10.0	100.0
Community, Social & Personal Services	5.8	47.8	5.2	0.1	41.2	100.0

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

### ***3.2 Ownership structure of firms***

22. As is typical in Africa, most firms covered in the survey were wholly owned privately with government co-owning a few firms in manufacturing and service sectors. These were mainly in transport and communication, hotels and restaurants and finance and insurance. On average, residents own 77 percent of the firms, and non-resident entrepreneurs of Asian ethnicity most of the rest. This is consistent with the finding in the ICA report that almost 70 percent of the firms were entrepreneur owned. Indeed, about 83 percent of the firms were reported to have been established by entrepreneurs rather than purchased or inherited. Again a significant share of firms is organised as sole proprietorships and most of these firms are small. However, most firms owned by non-residents are large in nature and therefore non-residents tend to control a large share of both the business assets and the market in Uganda.



**Table 4: Level of investment<sup>4</sup> and age structure**

	Set-up date							Total	Percent
	Before 1952	1952 - 1961	1962 -1971	1972 -1981	1982 - 1991	1992- 2001	After 2001		
<b>Level of investment (US\$)</b>									
less than 100,000	5	8	12	32	57	257	2	373	65.6
100,001 to 500,000		9	5	2	45	84	1	146	25.7
500,001 to 1,000,000		4	1	1	7	18		31	5.4
1,000,001 to 2,500,000				3	2	9		14	2.5
2,500,001 to 5,000,000				2		2		4	0.7
5,000,001 or more						1		1	0.2
<b>Total</b>	<b>5</b>	<b>21</b>	<b>18</b>	<b>40</b>	<b>111</b>	<b>371</b>	<b>3</b>	<b>569</b>	<b>100.0</b>
<b>Percent</b>	<b>0.9</b>	<b>3.7</b>	<b>3.2</b>	<b>7.0</b>	<b>19.5</b>	<b>65.2</b>	<b>0.5</b>	<b>100.0</b>	

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

Notes: 1. The data presented in the table excludes 1023 firms that did not provide a response on either of the variables.

### 3.3 Age structure of firms and capital stock

23. Over 60 percent of the enterprises that provided responses on the period they were set up were less than 10 years old. This implies that much of the capital stock is less than 10 years old. The ICA report also indicate that more than 40 percent of the manufacturing firms had capital stock averaging less than 5 years old. This contrasts with most of the other Sub-Saharan African countries where a large share of the capital stock is more than 20 years old. The young capital stock suggests that the technology available to Ugandan firms should be more recent, of better quality and more productive. However, this does not seem to be the case since such technology comes at a high cost and yet the levels of investment are quite low by and large. A cross tabulation of the level of investment reported against the date of set up shows that 65.6 percent of the enterprises had investment levels that were lower than US\$ 100,000 irrespective of age. Nonetheless, the majority of enterprises with investment levels exceeding US\$ 100,000 were established during the last decade. Moreover, the largest single categories of firms, about 45 percent were set up between 1992 and 2001 and were relatively small with investment levels lower than US\$ 100,000. Only 3.4 percent of the enterprises reported investment in excess of US\$ 1,000,000. This suggests that while the level of investment in Ugandan firms is predominantly low, there was a general increase in both the number of investments and the levels of investment after 1992.

<sup>4</sup> The level of investment reported is inclusive of equity and reserves. The liabilities in form of loans could not be broken down into intercompany and director's loans, which constitute capital, and other loans to permit a better estimate of the total investment in the different firms.

**Table 5: Level of investment and number of employees**

	Number of workers employed				Total	Percent
	1 to 5	6 to 20	21 to 50	51 to 100		
<b>Level of investment (US\$)</b>						
Less than 100,000	54	422	154	37	667	62.3
100,001 to 500,000	16	104	113	23	256	23.9
500,001 to 1,000,000	4	31	29	14	78	7.3
1,000,001 to 2,500,000		12	21	12	45	4.2
2,500,001 to 5,000,000		4	4	5	13	1.2
5,000,001 to 10,000,000		3		3	6	0.6
10,000,001 to 25,000,000		1		3	4	0.4
25,000,001 to 50,000,000			1		1	0.1
50,000,001 or more			1		1	0.1
<b>Total</b>	<b>74</b>	<b>577</b>	<b>323</b>	<b>97</b>	<b>1071</b>	<b>100.0</b>
<b>Percent</b>	<b>6.9</b>	<b>53.9</b>	<b>30.2</b>	<b>9.1</b>	<b>100.0</b>	
Average capital per worker (US\$)	24,170	7,900	5,370	3,430	4,020	

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

Notes: The data presented in the table excludes 521 firms that did not provide a response on either of the variables.

### ***3.4 Employment structure in firms***

24. Slightly more than half of the enterprises were medium sized in terms of the number of employees. Most firms had 6 to 20 workers. Only 9.1 percent of the firms had in excess of 50 employees, although there were a considerable number of firms (about 30.2 percent) who had between 21 and 50 employees. A cross tabulation of the level of investment against the number of employees shows almost three quarters of the firms employed 6 to 50 workers and had investment levels not exceeding US\$ 500, 000. Even within these more than half had investment levels that were lower than US\$100,000 and employed between 6 and 20 workers. This alludes to the predominance of medium sized firms in Uganda. Nonetheless, the overall average capital per worker is about US\$ 4,020, which shows a low capital intensity compared to Uganda's neighbors Kenya and Tanzania. In terms of distribution of capital per worker among different firm sizes, large firms (employing 50 or more workers) have the least at US\$3,430 while micro firms (employing less than 5 workers) have the highest at US\$24,150.

**Table 6: Level of investment and gross output**

Level of investment (US\$)	Gross output (US\$ 000)								Total	Percent
	Less than 100	101 to 500	501 to 1000	1001 to 2500	2501 to 5000	5001 to 10000	10001 to 25000	25001 or more		
Less than 100,000	454	168	23	11	1				657	61.9
100,001 to 500,000	51	123	57	18	4	2	1		256	24.1
500,001 to 1,000,000	10	28	18	17	5				78	7.4
1,000,001 to 2,500,000		8	11	16	6	3	1		45	4.2
2,500,001 to 5,000,000		1	1	8		3			13	1.2
5,000,001 to 10,000,000				3	2			1	6	0.6
10,000,001 to 25,000,000					1		3		4	0.4
25,000,001 to 50,000,000					1				1	0.1
50,000,001 or more						1			1	0.1
<b>Total</b>	<b>515</b>	<b>328</b>	<b>110</b>	<b>73</b>	<b>20</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>1061</b>	<b>100.0</b>
<b>Percent</b>	<b>48.5</b>	<b>30.9</b>	<b>10.4</b>	<b>6.9</b>	<b>1.9</b>	<b>0.8</b>	<b>0.5</b>	<b>0.1</b>	<b>100.0</b>	

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

Notes: The data presented in the table excludes 531 firms that did not provide a response on either of the variables.

### 3.5 Firm investment, gross output and employment

25. A few firms or 1.3 percent had gross output in excess of US\$ 500,000 with 48.5 percent of the firms reporting gross output lower than US\$100,000. The second largest category of about 30.9 percent of the firms reported gross output in the range of US\$100,000 and US\$500,000. Only 10.2 percent of the firms reported gross output exceeding US\$ 1,000,000 showing low levels of output at firm level. A cross tabulation of level of investment against gross output shows that a large portion of 88 percent of firms with gross output lower than US\$ 100,000 had low levels of investment. About 327 or 31 percent of the firms reported gross output in excess of the level of investment while 336 or an almost equal number of firms reported lower gross output compared to the level of investment. The remaining 38 percent of the firms had their gross output levels very close to their levels of investment.

**Table 7: Employment size and gross output**

Gross Output (US\$ 000)	Size by employment				Total	Percent
	1 to 5	6 to 20	21 to 50	51 to 100		
less than 100	118	504	126	19	767	53.2
101 to 500	20	204	148	38	410	28.4
501 to 1000	3	38	64	20	125	8.7
1001 to 2500	1	22	35	31	89	6.2
2501 to 5000		7	10	14	31	2.1
5001 to 10000		3	4	4	11	0.8
10001 to 25000			1	7	8	0.6
25001 or more				1	1	0.1
<b>Total</b>	<b>142</b>	<b>778</b>	<b>388</b>	<b>134</b>	<b>1442</b>	<b>100.0</b>
<b>Percent</b>	<b>9.8</b>	<b>54.0</b>	<b>26.9</b>	<b>9.3</b>	<b>100.0</b>	
Ratio of investment to gross output	1.96	0.76	0.76	0.55		

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

In terms of gross output by number of employees, more than half of the firms in the sample had low output in nominal terms (less than US\$100, 000) irrespective of the number of workers employed. However, expressed in terms of investment as a ratio to gross output, it is evident that small firms had higher output relative to the capital employed with a ratio of 1.96 compared to 0.55 for large firms. Small (employing 6 to 20 workers) and medium (employing 21 to 50 workers) had similar ratios.

**Table 8: Level of investment and profit earned**

	Gross profit earned (US\$ 000)						Total	Percent
	Less than 100	101 to 500	501 to 1000	1001 to 2500	2501 to 5000	5001 or more		
<b>Level of investment (US\$)</b>								
Less than 100,000	534	12			1		547	59.1
100,001 to 500,000	195	35	3	3	1		237	25.6
500,001 to 1,000,000	41	33					74	8.0
1,000,001 to 2,500,000	16	25	2	1			44	4.8
2,500,001 to 5,000,000	2	2	7	2			13	1.4
5,000,001 to 10,000,000		1	2	1	1		5	0.5
10,000,001 to 25,000,000				1	1	2	4	0.4
25,000,001 to 50,000,000			1				1	0.1
50,000,001 or more				1			1	0.1
<b>Total</b>	<b>788</b>	<b>108</b>	<b>15</b>	<b>9</b>	<b>4</b>	<b>2</b>	<b>926</b>	<b>100.0</b>
<b>Percent</b>	<b>85.1</b>	<b>11.7</b>	<b>1.6</b>	<b>1.0</b>	<b>0.4</b>	<b>0.2</b>	<b>100.0</b>	

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

- Notes: 1. The data presented in the table excludes 666 firms that did not provide a response on either of the variables.  
2. The data in the table on profits refers to profits before tax.

### **3.6 Firm profitability and employment**

26. Over 80 percent of the firms earned profits that were less than US\$ 100,000. Only 15.3 percent of the enterprises with investment levels in excess of US\$5,000,000 had profits that were higher than US\$100,000. However, 20 or 2 percent of the firms reported profits that were higher than the level of investment while 38 percent of the firms earned profits that were within the range of their level of investment. Overall, 60 percent of the firms earned profits that were lower than the level of investment although there seems to be a fairly high level of return to investment.

In terms of employment size profitability was highest among medium sized firms despite being low in nominal value for all firms. Table 9 below shows profits earned by employment size.

**Table 9: Employment size and profit earned**

	Size by employment				Total	Percent
	1 to 5	6 to 20	21 to 50	51 to 100		
Profit earned (US\$ 000)						
less than 100	103	616	272	71	1062	85.6
101 to 500	3	38	61	35	137	11.0
501 to 1000		5	8	6	19	1.5
1001 to 2500		4	4	6	14	1.1
2501 to 5000			3	4	7	0.6
5001 or more				2	2	0.2
<b>Total</b>	<b>106</b>	<b>663</b>	<b>348</b>	<b>124</b>	<b>1241</b>	<b>100.0</b>
<b>Percent</b>	<b>8.5</b>	<b>53.4</b>	<b>28.0</b>	<b>10.0</b>	<b>100.0</b>	
<b>Return on Investment</b>	<b>20.5</b>	<b>43.5</b>	<b>93.7</b>	<b>-9.7</b>		

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

The return on equity among medium sized firms was on average 93.7 percent while for small and micro firms were 43.5 percent and 20.5 percent respectively. In the case of large firms, return on equity was lowest and negative implying that large firms in the sample on average made losses during the survey period.

**Table 10: Level of investment and value addition**

	Value added (US\$ 000)						Total	Percent
	Less than 100	101 to 500	501 to 1000	1001 to 2500	2501 to 5000	5001 to 10000		
<b>Level of investment (US\$)</b>								
Less than 100,000	574	80	3		1		658	62.1
100,001 to 500,000	110	124	13	5		1	253	23.9
500,001 to 1,000,000	14	46	17	1			78	7.4
1,000,001 to 2,500,000	1	21	15	8			45	4.2
2,500,001 to 5,000,000		1	5	4	2	1	13	1.2
5,000,001 to 10,000,000		1	1	3		1	6	0.6
10,000,001 to 25,000,000				1		3	4	0.4
25,000,001 to 50,000,000				1			1	0.1
50,000,001 or more						1	1	0.1
<b>Total</b>	<b>699</b>	<b>273</b>	<b>54</b>	<b>23</b>	<b>3</b>	<b>7</b>	<b>1059</b>	<b>100.0</b>
<b>Percent</b>	<b>66.0</b>	<b>25.8</b>	<b>5.1</b>	<b>2.2</b>	<b>0.3</b>	<b>0.7</b>	<b>100.0</b>	

Source: Uganda Business Inquiry Survey, Uganda Bureau of Statistics

Notes: 1. The data presented in the table excludes 533 firms that did not provide a response on either of the variables

### 3.7 Value added by firms

27. Only about 8.3 percent of the firms reported value added in excess of US\$ 500,000 as in the case of gross output with a majority of 66.0 percent of the firms reported value added that was lower than US\$100,000. The second largest category of 25.8 percent of the firms reported value addition in the range of US\$100,000 and US\$500,000. However, some firms 105 or 10 percent had levels of value added that exceeded reported levels of investment. In

addition, all firms with levels of investment exceeding US\$ 10,000,000 reported value addition that was higher than US\$ 1,000,000.

**Table 11: Level of investment and the ratio of value added to gross output**

	Ratio of value added to gross output (%)									Total	Percent
	1 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	81 to 90		
<b>Level of investment (US\$)</b>											
Less than 100,000	13	59	63	72	111	88	109	60	38	613	62.3
100,001 to 500,000	1	13	26	43	33	41	43	26	13	239	24.3
500,001 to 1,000,000	2	2	11	8	8	9	6	17	6	69	7.0
1,000,001 to 2,500,000	2	6	6	5	5	4	3	4	7	42	4.3
2,500,001 to 5,000,000					2	3	2	2	3	12	1.2
5,000,001 to 10,000,000					1			2		3	0.3
10,000,001 to 25,000,000								3	1	4	0.4
25,000,001 to 50,000,000							1			1	0.1
50,000,001 or more									1	1	0.1
<b>Total</b>	<b>18</b>	<b>80</b>	<b>106</b>	<b>128</b>	<b>160</b>	<b>145</b>	<b>164</b>	<b>114</b>	<b>69</b>	<b>984</b>	<b>100.0</b>
<b>Percent</b>	<b>1.8</b>	<b>8.1</b>	<b>10.8</b>	<b>13.0</b>	<b>16.3</b>	<b>14.7</b>	<b>16.7</b>	<b>11.6</b>	<b>7.0</b>	<b>100.0</b>	

Source: UBI

Notes: 1. The data presented in the table excludes 608 firms that did not provide a response on either of the variables

28. Using the ratio of value added to gross output as an indicator of productivity it appears that productivity is normally distributed with majority of the firms bunching up in between the ratios of 31 percent and 70 percent. In particular, firms with low investment comprised the largest share of those with the ratio of value addition to gross output in excess of 50 percent indicating better performance among small and medium sized firms. This notwithstanding, the bottom right quarter of the table shows that productivity was also quite high among a few firms with very high levels of capital. This is noticeable for firms with investment levels exceeding US\$ 2,500,000 for whom the ratio of value added to gross output was 40 percent and above. Nonetheless, Table 3 shows the productivity of labour to be quite low as depicted by the ratio of wages to value addition. This may imply that despite the low labour productivity, a number of firms have been able to make the best use of the technology available.

**Table 12: Level of investment and sectoral location**

	Industrial sector								Total	Percent
	Agric	Mining	Manuf.	Const	Wholesale and retail trade	Hotels and restaurants	Transport and comm..	Other business and personal services		
<b>Level of investment (US\$)</b>										
Less than 100,000	19	1	135	31	192	65	47	177	667	62.3
100,001 to 500,000	2		55	23	73	23	28	52	256	23.9
500,001 to 1,000,000	2		17	11	12	10	2	24	78	7.3
1,000,001 to 2,500,000			14	3	6	2	5	15	45	4.2
2,500,001 to 5,000,000			2		1			10	13	1.2
5,000,001 to 10,000,000			1					5	6	0.6
10,000,001 to 25,000,000					3			1	4	0.4
25,000,001 to 50,000,000			1						1	0.1
50,000,001 or more								1	1	0.1
<b>Total</b>	<b>23</b>	<b>1</b>	<b>225</b>	<b>68</b>	<b>287</b>	<b>100</b>	<b>82</b>	<b>285</b>	<b>1071</b>	<b>100.0</b>
<b>Percent</b>	<b>2.1</b>	<b>0.1</b>	<b>21.0</b>	<b>6.3</b>	<b>26.8</b>	<b>9.3</b>	<b>7.7</b>	<b>26.6</b>	<b>100.0</b>	

Source: UBI

Notes: 1. The data presented in the table excludes 521 firms that did not provide a response on either of the variables

### ***3.8 Firm investment sectoral and regional allocation***

29. A large number of firms representing about 74 percent of the total were located within the manufacturing, wholesale and retail trade and other business and personal services sectors. However, investments of less than US\$100,000 spanned all sector accounting for 62.3 percent of all firms that provided responses. In terms of attracting large investments that are in excess of US\$ 2,500,000, manufacturing, wholesale and retail and other business and personal sectors dominated with other business and personal services holding the largest share. Overall the services sector appears to comprise the largest share of investment followed by manufacturing and agriculture with mining having the least share. The distribution of investment among the different sectors also shows the low level of investment on the whole with most of the investment not exceeding US\$ 2,500,000 despite an overall even distribution with the exception of agriculture and mining.

**Table 13: Level of investment and regional location**

	Regional location				Total	Percent
	Central	Eastern	Northern	Western		
<b>Level of investment (US\$)</b>						
Less than 100,000	445	71	54	97	667	62.3
100,001 to 500,000	180	24	16	36	256	23.9
500,001 to 1,000,000	64	3	5	6	78	7.3
1,000,001 to 2,500,000	41	3		1	45	4.2
2,500,001 to 5,000,000	12			1	13	1.2
5,000,001 to 10,000,000	5			1	6	0.6
10,000,001 to 25,000,000	4				4	0.4
25,000,001 to 50,000,000				1	1	0.1
50,000,001 or more	1				1	0.1
<b>Total</b>	<b>752</b>	<b>101</b>	<b>75</b>	<b>143</b>	<b>1071</b>	<b>100.0</b>
<b>Percent</b>	<b>70.2</b>	<b>9.4</b>	<b>7.0</b>	<b>13.4</b>	<b>100.0</b>	

Source: UBI

Notes: 1. The data presented in the table excludes 521 firms that did not provide a response on either of the variables

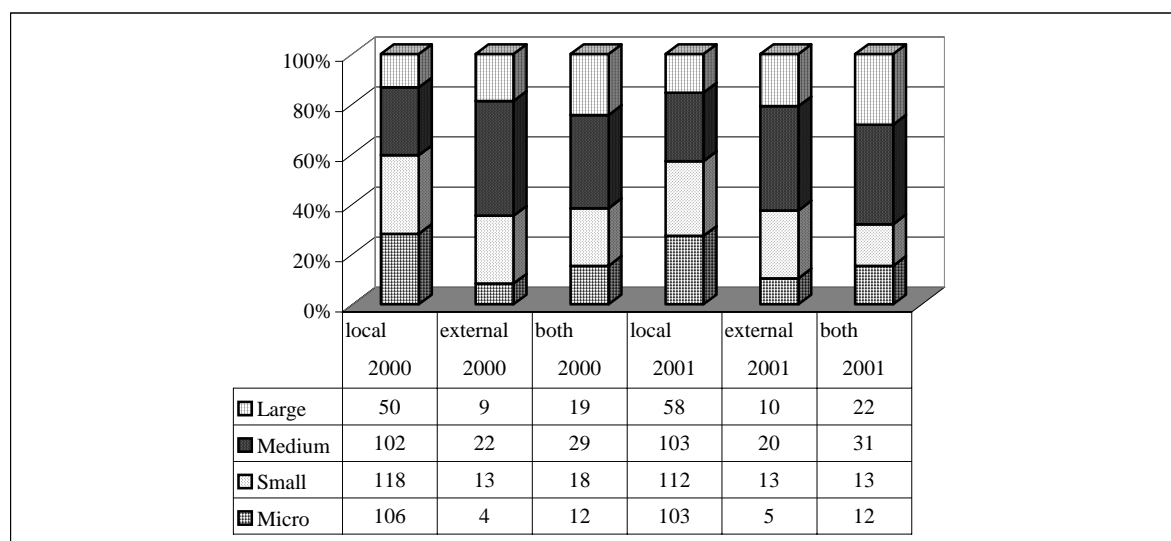
30. About 70 percent of the firms were located within the central region, followed by western region with 13 percent and eastern and northern regions each with almost equal shares of the balance. A cross tabulation of investment by region depicts the bias in location of investments towards the central region. In particular, no ventures in excess of US\$ 1,000,000 are located in the northern region, which can be attributed to the instability caused by civil war. The Eastern region has similarly had a very small share of 0.2 percent of investments in excess of US\$ 1,000,000, which in addition do not exceed US\$ 2,500,000.

### **3.9 Source of Market**

The majority of firms produce for the local market. However, among firms producing for the local market, small and micro firms dominated with medium and large firms having the least shares. Production for export is dominated by medium sized firms followed by large firms. Medium sized firms comprised over 40 percent of the firms producing for export while large firms accounted for about 20 percent. This could be explained by the relatively large investment particularly for high quality capital equipment required to produce for exports which medium and large firms can afford. In the case of firms producing for both domestic consumption and export, large and medium firms dominated accounting for over 60 percent of total firms in this category despite the large presence of micro and small firms in the sample. This is again explained by the large investment required to produce for both markets.



**Figure 2: Source of market**

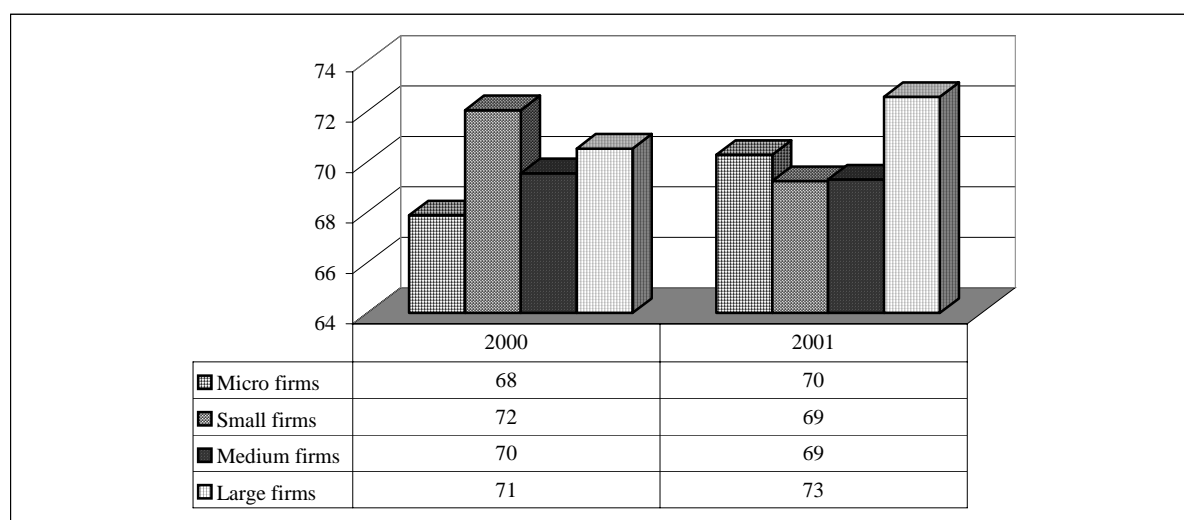


Source: Survey of Private Capital Flows (BOU, UIA, UBOS)

### 3.10 Capacity utilization

Capacity utilization among firms varied between 68 percent and 71 percent during 2000 while in 2001 it varied between 70 percent and 73 percent. In 2000, capacity utilization was lowest among micro firms and highest among small firms. During the year 2001, an improvement was observed among small firms while large firms increased their capacity utilization from 71 percent in 2000 to 73 percent in 2001. Despite the improvement in capacity utilization among micro and large firms, the overall levels are still short of full capacity levels explained by a combination of both supply bottlenecks and product demand shortfalls.

**Figure 3: Capacity utilization among Ugandan firms (2000 – 2001)**

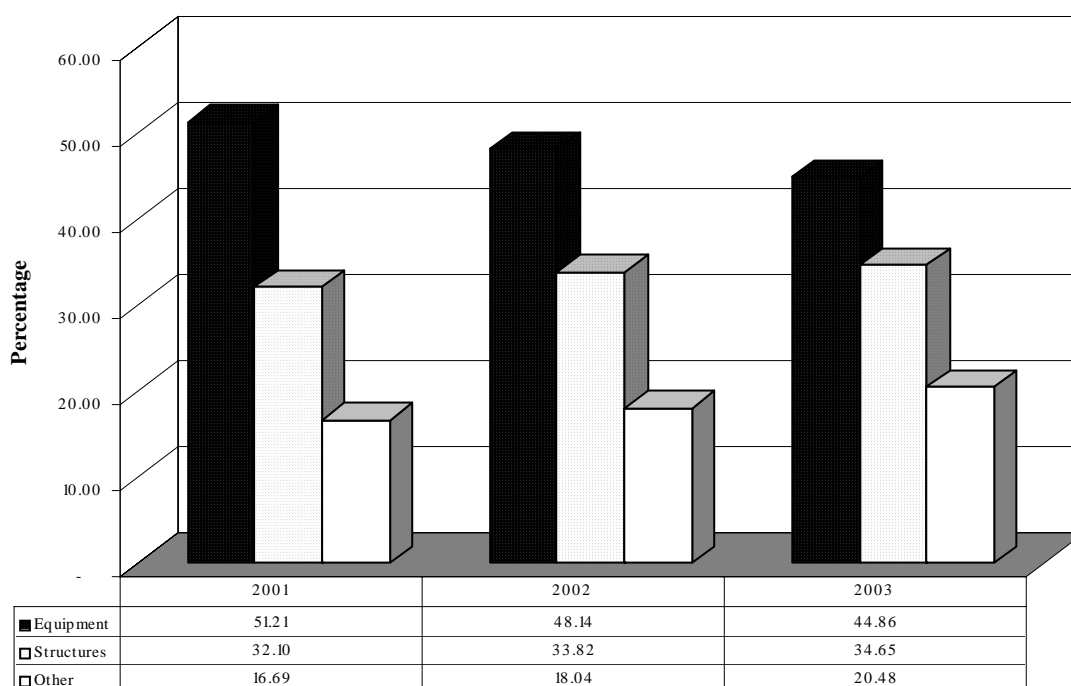


Source: Survey of Private Capital Flows (BOU, UIA, UBOS)

### 3.11 Firm level structures and equipment investment expenditure

31. Evidence from aggregate data shows that gross fixed capital formation was dominated by increases in private commercial and residential buildings. In constant price terms, the growth in construction tended to exceed the expansion in equipment investment since 1986/87. This study used data from a sample of firms in the Bank of Uganda private capital survey, to characterize firm level investment expenditure. The data shows that over the period 2001 to 2003, the share of equipment declined from 51.2 percent in 2001 to 44.9 percent in 2003 while that for structures increased slightly from 32.1 percent to 34.7 percent over the same period. In nominal terms, equipment expenditure fell by 1.9 percent from US\$ 639.7 million in 2001 to US\$ 627.4 million in 2003. Over the same period, structures expenditure by firms increased by 20.8 percent from US\$ 401.0 million to US\$ 484.6 million.

**Figure 4: Major categories of firm investment expenditure 2001 to 2003**



Notes: Equipment consists of plant and machinery and vehicles, structures include buildings, land, furniture and fittings while other consists of pre start up expenses, working capital and other expenditures

Source: Bank of Uganda Private Capital Flow's survey 2001/2002 and 2002/2003.

#### IV. Determinants of firm level investment in Uganda

32. The data set used in the analysis of the determinants of firm level investment consists of annual observations (2001 to 2003) for 130 firms selected from the 2004 private capital flows survey data set. This constitutes an unbalanced panel of 390 observations and a balanced panel of 260 observations on account of lack of data within the selected sample on turnover and profitability during 2001. The specification for estimation takes the form

$$A_{i,t} = \alpha + \beta_1 A_{i,t-1} + \beta_2 T_{it} + \beta_3 P_{it} + \beta_4 C_{it} + \beta_5 DC_{it} + \beta_6 DUMMY_{it} + u_{it} \dots\dots\dots(1)$$

The variables  $A$ ,  $T$ ,  $P$  and  $C$  denote actual investment, turnover, profits and credit received respectively with  $i$  denoting the firms and  $t$  denoting time. The variable  $DC$  is a dummy for location and is 1 if the  $i^{th}$  firm is located in the central region and 0 elsewhere. The variable  $DUMMY$  represents dummy variables for firm size ( $DL$  - large,  $DMM$  - medium,  $DSS$  - small) and sector ( $DA$  - agriculture,  $DM$  - manufacturing and  $DS$  - services) in equations 3 to 8 of Table 14.  $\alpha$  is a constant and  $u_{it}$  denotes the disturbance term with

$$u_{it} = \mu_i + v_{it}$$

$\mu_{it}$  denotes the unobservable individual specific effect and  $v_{it}$  denotes the remainder disturbance. The number of lags on the dependent variable was set to one without any specific criteria due to the brevity of the time series data on the cross-sectional units. The model produces similar results when run using both Generalized Least squares (GLS) and Pooled Least Squares (PLS). Table 14 below presents the results of the estimation exercise.

**Table 14: Estimates of the determinants of firm level investment (2002 – 2003)**

Variable	Finvest	finvest	finvest	finvest	finvest	finvest	finvest	finvest
Constant (C)	1.45 (-2.10)**	1.04 (6.43)**	0.77 (3.90)**	1.37 (9.35)**	1.06 (6.60)**	1.13 (8.40)**	0.80 (3.46)**	1.14 (6.97)**
Lagged Actual Investment (A-1)	1.07 (82.61)**	1.06 (128.35)**	1.05 (138.78)**	1.05 (107.28)**	1.05 (118.41)**	1.05 (129.68)**	1.07 (128.70)**	1.05 (105.98)**
Turnover (T)	-0.08 (-5.58)**	-0.04 (-8.38)**	-0.05 (-8.15)**	-0.05 (-8.02)**	-0.04 (-8.00)**	-0.05 (-9.20)**	-0.05 (-7.67)**	-0.05 (-10.21)**
Profit (P)	0.68 (4.71)**	0.46 (8.50)**	0.43 (7.92)**	0.56 (11.09)**	0.45 (8.26)**	0.52 (10.71)**	0.48 (8.11)**	0.48 (9.83)**
Credit accessed (C)	0.25 (1.89)*	0.17 (1.43)	0.17 (1.33)	0.11 (0.98)	0.19 (1.67)*	0.16 (1.37)	0.15 (1.25)	0.21 (1.88)*
Dummy for firms in central region (DC)	-1.30 (-1.88)*	-0.95 (-6.09)**	-0.75 (-3.81)**	-1.23 (-8.67)**	-0.92 (-6.01)**	-1.04 (-8.04)**	-0.68 (-3.05)**	-1.10 (-6.88)**
Dummy for large firms (DL)			0.21 (7.68)**		-0.08 (-5.08)**			
Dummy for medium firms (DMM)				-0.17 (-4.23)**				
Dummy for small firms (DSS)					-0.08 (-5.08)**			
Dummy for firms in agricultural (DA)						0.13 (2.57)**		
Dummy for firms in manufacturing (DM)							-0.13 (-4.54)**	
Dummy for firms in services (DS)								0.08 (6.40)**
Total panel (balanced) observations	260	260	260	260	260	260	260	260
R-squared	0.97	0.99	0.99	0.99	0.99	0.99	0.99	0.98
Adjusted R-squared	0.97	0.99	0.99	0.99	0.99	0.99	0.99	0.98
S.E. of regression	2.56	2.33	2.31	2.27	2.34	2.34	2.28	2.34
F-statistic	1786.82	3709.21	5546.17	3027.41	3485.31	4517.50	3560.63	2489.74
Durbin-Watson stat	2.08	1.87	1.80	1.86	1.89	1.88	1.84	1.88

Notes: 1. \*\* Denotes significance at a 5% level while \* denotes significance at a 10 % level.

2 Finvest is obtained using Pooled Least Squares while finvest is obtained using Generalized least Squares.

33. The analysis reveals that turnover, profit and credit are significant determinants of firm level investment. Indeed as suggested by Bigsten et al (1999), the large significant effect of profits on investment suggests that credit constraints are still present among firms. The results also show that the profit effect is larger for small and medium sized enterprises compared to large firms. However, contrary to expectation, credit was not a significant factor on investment for small and medium sized firms. It is possible that small and medium sized firms use own savings and profits as sources of capital rather than credit. This would imply that the credit is required to ease temporary cash flow problems as opposed to new capital formation. As shown in the Table 14, the dummy variable for location is negative and significant at a level of 10 percent indicating that firms located within the central region are

likely to invest less than those located outside the central region. Indeed, this is often the case as investment ventures outside the central region usually entail heavy capital outlays in the initial stages particularly for infrastructure<sup>5</sup>.

34. As for size, the dummy for large firms is significant and positive indicating that large sized firms are more inclined to reinvest over time as opposed to small and medium sized enterprises. This could possibly be attributed to the easier access to credit for large firms in addition there is the possibility for large firms could be investing more from retained earnings. In fact, in the recent past, a number of large firms have been able to access funds from the public through offers of corporate bonds. This reaffirms the findings by Reinikka and Svensson (2001) that size is a significant determinant of investment in Uganda. The effect of sector location is also found to be significant as shown by the dummy variables for firms in agriculture, manufacturing and services. Firms within manufacturing tend to invest less over time compared to firms within agriculture and services.

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<sup>5</sup> Extreme cases have occurred where new firms have had to construct roads, generate their own electricity and water. An example is Kasese Cobalt Company limited, which generates its own electricity and water.

## **V. Policy implications: improving firm level investment performance**

35. A number of strategies are required to reduce transactions costs that affect investors in the Ugandan economy. Once transactions costs are reduced productivity at firm level will rise and it will be possible to unleash a new growth spurt that the economy needs. To increase investment and firm level productivity, specific improvements are required in the seven areas mentioned below.

### **5.1 *Infrastructure services***

36. Power supply is now the most recognized critical constraint to investment and the growth of firms. Unreliable electricity supply is a daunting constraint. According to ICA the share of production lost due to power outages and fluctuations average 6.3 percent in manufacturing. Government needs to fast track policies to increase power generation, transmission and distribution as a matter of urgency. The split of the Uganda Electricity Board into three separate companies with specific roles of generation, transmission and distribution has been instrumental in addressing some of the efficiency issues in the provision of electricity. Nonetheless, there is a more pressing need to increase the capacity of the electricity sector. Government needs to promote as many private companies interested in generating electricity as possible to secure reliable supply of electricity at low prices.

37. Other key services such as water and sanitation, telecommunications and transportation and storage similarly constrain the operation and growth of firms. In particular, the quality and price of these services has been emphasized as key factors hampering profitability and expansion of existing firms. In the case of water and sanitation, key reforms are required to increase investment and expand service. In the transport area government needs to accelerate improvements in the road network in the major economic routes and to ensure they are well maintained. In the case of maintenance, government could consider introducing Toll collection at key entry points for heavy trucks to be spent towards maintenance.

38. The concession of the Uganda railways cooperation needs to be implemented expeditiously to foster the lowering of transportation costs from the coastal towns of Mombassa in Kenya and Dar-es-salaam in Tanzania through which Uganda's receives most of her imports. Efforts to rehabilitate and expand the existing network to Uganda's borders with Rwanda, Congo and Sudan need to be urgently undertaken to promote the location of both resource and market seeking investments. In the telecommunications sector, there is need to encourage more providers to further lower costs and expand the networks further.

## **5.2 *Lowering costs of the operating environment***

39. The high-cost operating environment in Uganda is in part due to inadequate regulatory capacity and unclear policies and regulations. It is important to expedite the review of commercial legislation that is important for business. In particular, there is need to improve the legal and regulatory environment faced by private firms — especially new and small businesses. There is need to promote efficiency and effectiveness of the commercial courts specifically in settling disputes in matters of company law, insolvency, secured lending and intellectual property.

## **5.3 *Competitive investment climate***

40. The poor ratings of Uganda's investment climate at the global level need to improve. The cost of doing business, reflecting administrative procedures, licensing, lack of transparency and predictability of tax and other regulatory obligations, is often perceived as being high (as illustrated by various reports on Private Capital Flows and Investment Surveys conducted by Bank of Uganda, Uganda Investment Authority and Uganda Bureau of Statistics). Administrative procedures for creating new businesses need to be streamlined. In addition, the complexity of business taxation and regulation which continue to limit private investment, inhibit entry of new firms particularly those (from the informal sector to the formal sector), discourage existing profitable firms from expanding and permit unprofitable firms to survive through recourse to informal activities and non-compliance with tax obligations and regulations need to be addressed.

41. While there has been recent government strategic interventions to foster investment in some competitive sectors, there is need to refrain from distorting market forces through bailouts of troubled enterprises. Helping a sector or a firm sets a bad precedent and runs against efforts made over past years to improve the allocation of resources by ensuring a level-playing field. There is need for the creation of export processing zones and where viable the provision of "Turnkey Projects" where the government finances project engineers or project management consortiums to build, operate for a time, and transfer a facility to an investor. This would help to circumvent some of the administrative and licensing bottlenecks while at the same time avoiding construction delays and start-up difficulties minimizing project timing and resulting in lower project costs.

#### **5.4 *Supportive financial sector***

42. Firms interviewed in the private sector investment survey indicated that financing obstacles were important constraints to investment growth. This is consistent with the findings of the ICA report in which the most sighted obstacles related to the cost of finance (including interest rates) and access to finance (collateral requirements). In this report around 60 percent of firms reported that the cost of finance was a major constraint and 45 percent reported access to finance as the main drawback. Earlier studies also documented a heavy reliance of Ugandan firms on internal resources. Firms relied on internal finance to support 80 percent of working capital needs and 71 percent of new investments. Only 32 percent of the firms had access to bank credit compared to 80 percent in neighboring Kenya. Financial sector deepening and investment financing deserve particular attention. The financial sector still has room to lower significantly intermediation and administrative costs. Lowering these costs will help reduce interest rates and increase lending to the private sector. In addition, there is need for innovation among financial institutions to permit small borrowers who have little or no collateral that may require credit.

#### **5.5 *Revamping firm level productivity***

43. Firm productivity and capacity utilization could do with support to private sector led skills development and technology transfer. There is indeed considerable scope for improvement of productivity of firms. In particular, measures are needed to raise productivity among low-skill labor-intensive sectors, in which Uganda faces rising competition from Kenya where wages are lower and labour force are generally of higher skill. Government should consider revamping vocational education and training to impart the much-needed skills for the low skilled labor-intensive sector. Government support for worker training programs for micro, small and medium size enterprises is also needed. In addition, Government needs to provide incentives to firms for new technology adoption. The government with the help of development partners could also consider encouraging entrepreneurship and improving access to business education to micro, small and medium sized business entrepreneurs. In raising the skills of the Ugandan labor force to increase productivity, emphasis should be placed on higher value- added and more competitive products to accelerate a shift towards more rewarding business ventures. Firms should also be encouraged to expand if they are successful.

#### **5.6 *External finance to support to private investment***

44. There is need for the provision of support to institutional development in order to increase availability of term finance and other products for micro, small and medium sized firms. In attracting external finance for supporting of private investment, government needs to focus on the provision of support to small and medium-sized businesses. Efforts in this area should



be at both a policy level and through attraction of financial intermediaries, which can lead to already established institutions for on lending to smaller borrowers. There is also need to encourage financial institutions to provide leasing facilities to enable both start-up and existing firms to acquire equipment and machinery particularly where it is more cost effective to lease than outright purchasing. Technical and financial support from the World Bank could make a critical input in these areas.

45. Firms have limited access to long-term loans with only two banks (East African Development Bank and Uganda Development Bank) providing such resources in the country in addition to the APEX Scheme managed by Bank of Uganda. There is need to improve the overall regulatory framework for micro finance institutions while for lenders to large investments there is need to promote the creation of risk mitigation instruments to encourage long term financing. In addition, the Uganda Development Bank needs to be quickly transformed into an institution that allows broad development of the long-term capital market to provide the financial coverage for high-risk but viable projects. Access to long-term financing still requires focus on key areas of pensions; insurance and capital markets development and the introduction of state revolving funds jointly financed by government and our development partners.

### ***5.7 Using investment interventions to address regional imbalances***

46. A cross tabulation of investment by region depicts the bias in location of investments towards the central region. In particular, no ventures in excess of US\$ 1.0 million are located in the northern region, which can be attributed to the instability caused by civil war. These results also confirm the known stylized facts regarding poverty vulnerability in Uganda namely; households in the Central, Eastern, and Western regions in comparison with those from the northern region are less likely to be poor. To address issues of poverty and inequality, special programmes are required to attract investment to the Northern region of the country. Again, the role of development partners including the World Bank would be important in designing a technical program to improve institutions that provide financial resources to support investment in the underinvested regions of the country.

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Economic Policy Research Centre (EPRC)  
51 Pool Road Makerere University Campus P. O. Box 7841 Kampala, Uganda  
Tel: 256-41-541023 Fax: 256-41-541022 Email: [eprc@eprc.or.ug](mailto:eprc@eprc.or.ug)