DETERMINANTS OF PRIVATE INVESTMENT BEHAVIOUR IN GHANA

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Abstract

This study analyses the determinants of private investment in Ghana using a time series analysis and complementing it with a cross-sectional one. From many perspectives, the cross-sectional analysis supports the time series analysis. While some of the individual effects of the components of macroeconomic instability are found to be negligible, the overall measure of macroeconomic instability has been a major hindrance to private investment. The results suggest that policies that address only some components of macroeconomic instability may not be enough to revive private investment. The growth of real credit to the private sector has a positive and statistically significant effect on private investment. The question of finance must therefore be addressed in order to ensure continuing participation of the private sector in investment. Private investment and public investment are found to be complementary and thus there is the need for the government to continue to develop the infrasctural base of the economy to boost the private sector. The econometric results suggest that the military takeovers may have created a climate hostile to private investment.

1. Introduction

Background

In April 1983, the Government of Ghana launched its Economic Recovery Programme (ERP), which was intended to reverse the deterioration in the economy. Prior to 1983, inappropriate domestic policies coupled with external shocks (drought in 1975–1977 and 1981–1983) led to a severe deterioration in economic and financial performance. Large fiscal deficits, financed primarily by borrowing from the domestic banking system, gave rise to high rates of inflation and an over-valued exchange rate. Heavy government intervention in the economy, as well as massive expansion of the public sector through the establishment of a large number of state enterprises, worsened the distortions in the economy and destroyed any incentives to produce, save and invest.

Initially, the ERP focused on macroeconomic policies intended to address certain imbalances and distortions in the economy. A lot of progress has been made. The government has pursued a programme of financial and structural reforms that have been hailed by the international community as a good example of adjustment with growth. These reforms have been supported not only by the IMF and the World Bank but also by bilateral and multilateral external financial assistance. As a consequence, Ghana's macroeconomic and financial performance has improved substantially after a prolonged period of decline.

Despite the improvements in economic performance, however, Ghana continues to be confronted with a number of constraints. Among the constraints are levels of savings and investment that are too low to allow self-sustained growth. This has caused a lot of concern in government and academic circles about the sustainability of the achievements so far. According to the World Bank (1991), the level of domestic savings and investment is inadequate to fuel the growth needed to raise living standards and generate sufficient productive employment. The Bank notes that the major share of the additional savings and investment required must come from private sources. Consequently, the present study seeks to study investment behaviour. Investment plays a crucial role in models of economic growth. It is an essential component of aggregate demand, and fluctuations in investment have considerable effect on economic activity and long-term economic growth. The view that capital formation is the key to growth, called "capital fundamentalism" by Youopoulos and Nugent (1976), was reflected in the development strategies and plans in many countries. While capital accumulation is no longer viewed as a panacea for poor countries, it is nevertheless clear that even mildly robust growth rates can be sustained

over long periods only when countries are able to maintain investment at a sizeable proportion of GDP. The proportion can rarely be less than 15% and in some cases it must go as high as 25% (Gillis *et al*, 1987: 255). Based on the determinants of private investment, policy makers could better control private investment in the desired direction to foster economic growth and development.

Objectives of study

The primary objective of the study is to analyse the determinants of private investment in Ghana between 1970 and 1992. For this purpose, we use both time series and cross-sectional analysis. The cross-sectional analysis will be used to determine whether the factors identified in the time series analysis are still constraints to private investment. Specifically, the study seeks to (1) estimate a time series model with private investment as the dependent variable to determine significant explanatory variables; (2) identify the factors that are perceived to influence the investment decisions of private manufacturers by surveying manufacturing firms; and (3) to analyse the consistency of the time series analysis with the cross-sectional analysis.

Hypotheses to be tested

The following specific hypotheses will be tested:

1. Macroeconomic and political instability have inhibited private investment.
2. Lack of a financial system oriented towards business has been a constraint to private investment.
3. Public investment crowds in/out private investment.

2. Theories of investment

The theories of investment date back to Keynes (1936), who first called attention to the existence of an independent investment function in the economy. A central feature of the Keynesian analysis is the observation that although savings and investment must be identical ex-post, savings and investment decisions are, in general, taken by different decision makers and there is no reason why ex-ante savings should equal ex-ante investment. The next phase in the evolution of investment theory gave rise to the accelerator theory, which makes investment a linear proportion of changes in output. In the accelerator model, expectations, profitability and capital costs play no role. Keynesians have traditionally favoured the accelerator theory of investment while disregarding the role of factor costs.

A more general form of the accelerator model is the flexible accelerator model. The basic notion behind this model is that the larger the gap between the existing capital stock and the desired capital stock, the greater a firm's rate of investment. The hypothesis is that firms plan to close a fraction, , of the gap between the desired capital stock, K^*, and the actual capital stock, K, in each period. This gives rise to a net investment equation of the form of:

$$I = \delta (K^* - K_{-1})$$

where I = net investment, K^* = desired capital stock, K_{-1} = last period's capital stock, and δ = partial adjustment coefficient.

Within the framework of the flexible accelerator model, output, internal funds, cost of external financing and other variables may be included as determinants of K^*. The flexible accelerator mechanism may be transformed into a theory of investment behaviour by adding a specification of K^* and a theory of replacement investment. Alternative econometric models of investment behaviour differ in the determinants of K^*, the characterization of the time structure of the investment process and the treatment of replacement investment. In the flexible accelerator model, K^* is proportional to output, but in alternative models, K^* depends on capacity utilization, internal funds, the cost of external finance and other variables.

Jorgenson (1971) and others have formulated the neoclassical approach, which is a version of the flexible accelerator model. In this approach, the desired or optimal capital stock is proportional to output and the user cost of capital (which in turn depends on the price of capital goods, the real rate of interest, the rate of depreciation and the tax structure).

In the "Q" theory of investment (which is also in the neoclassical framework) associated with Tobin (1969), the ratio of the market value of the existing capital stock to its replacement cost (the "Q" ratio) is the main force driving investment. Tobin argues that delivery lags and increasing marginal cost of investment are the reasons why Q would differ from unity.

Another approach dubbed "neoliberal" (Galbis, 1979: 423) emphasizes the importance of financial deepening and high interest rates in stimulating growth. The proponents of this approach are McKinnon (1973) and Shaw (1973). The core of their argument rests on the claim that developing countries suffer from financial repression (which is generally equated with controls on interest rates in a downward direction) and that if these countries were liberated from their repressive conditions, this would induce savings, investment and growth. Not only will liberalization increase savings and loanable funds, it will result in a more efficient allocation of these funds, both contributing to a higher economic growth. In the neoliberal view, investment is positively related to the real rate of interest in contrast with the neoclassical theory. The reason for this is that a rise in interest rates increases the volume of financial savings through financial intermediaries and thereby raises investible funds, a phenomenon that McKinnon (1973) calls the "conduit effect". Thus, while it may be true that demand for investment declines with the rise in the real rate of interest, *realized* investment actually increases because of the greater availability of funds. This conclusion applies only when the capital market is in disequilibrium with the demand for funds exceeding supply.

More recent literature has introduced an element of uncertainty into investment theory due to irreversible investment (Pindyck, 1991). The argument is that since capital goods are often firm-specific and have a low resale value, disinvestment is more costly than positive investment. He argues that the net present value rule—invest when the value of a unit of capital is at least as large as its cost—must be modified when there is an irreversible investment because when an investment is made, the firm cannot disinvest should market conditions change adversely. This lost option value is an opportunity cost that must be included as part of the cost. Accordingly, "the value of the unit must exceed the purchase and installation cost, by an amount equal to the value of keeping the investment option active" (Pindyck, 1991: 1112).

Rodrik (1991) introduces another element of uncertainty—policy uncertainty—as a determinant of private investment. When a policy reform is introduced, it is very unlikely that the private sector will see it as one hundred percent sustainable. A number of reasons may be adduced, among them the expectation that the political-economic configuration that supported the earlier policies may resurface. There is also the fear that unexpected consequences may lead to a reversal. Investors must respond to the signals generated by the reform for it to be successful. However, rational behaviour calls for withholding investment until much of the uncertainty regarding the eventual success of the reform is eliminated.

It is clear from the discussion in this section that private investment depends on three broad categories of variables: Keynesian, neoclassical, and uncertainty variables. Variables that may be included in the Keynesian tradition include growth rate of GDP, internal funds (for example, change in credit to the private sector) and capacity utilization.

The neoclassical determinants of private investment include Tobin's Q, real interest rate, user cost of capital and public investment ratio. There are three uncertainty variables. The first is variability (variance, moving standard deviation or moving coefficient of variation) of the user cost of capital, real exchange rate, inflation rate, distortions in the foreign exchange market (proxied by the black market premium) and real GDP. The second uncertainty variable is the debt/GDP ratio and the third is debt service as a ratio of exports of goods and services.

3. Investment in Ghana

History of the climate for private investment

The attitude of government towards private investment has changed very little over time.[1] The hostility attitude towards private investment started with the Nkrumah government in the 1950s. After taking the view that the publicly-owned commercial enterprises set up in the 1950s would be sold to private operators after they had become viable, Nkrumah changed his mind by asserting in 1960 that his government would "place far greater emphasis on the development of Ghanaian cooperatives rather than encourage Ghanaians to start private business enterprises", and that the state enterprises would not be handed over to private interests. His attitude towards local private enterprise was based on the fact that (1) he believed there was little realistic prospect of fostering an indigenous entrepreneurial class capable of industrializing at the speed and scale he wanted; (2) he thought the country would be hampering its advancement to socialism if Ghanaian private capitalism were encouraged; and (3) he feared the threat a wealthy class of Ghanaian business people might pose to his political power (Killick, 1978: 60). To reward some individual political party supporters Nkrumah decided that Ghanaian private enterprise would be limited to small-scale concerns, as long as they were not nominees or partners offoreign interests.

While his attitude towards local private enterprise was made clear in the early 1960s, Nkrumah's views on foreign private investment remained ambiguous. He advocated the need for foreign direct investment, arguing that it brought in much-needed managerial and technical skills that could be passed on to Ghanaians. A Capital Investments Act was passed in 1963, offering a wide range of fiscal and other concessions to would-be investors. But there were strings attached as indicated by Nkrumah's statement, "The Government accepts the operation in the country of large-scale enterprises by foreign interests, provided that they accept the following conditions: first, that foreign private enterprises give the government the first option to buy their shares, whenever it is intended to sell all or part of their equity capital; and secondly that foreign private enterprises and enterprises jointly owned by the state and foreign private interests be required to reinvest 60% of their net profits in Ghana" (Nkrumah, in Friedland and Rosberg (1964: 271). He reiterated that no foreign investor would be allowed to interfere with the domestic or external affairs of the country. The Nkrumah government starved the private sector of imported raw materials, spare parts and equipment, and used exchange controls to prevent

the repatriation of after-tax profits (Killick, 1978 ' 38). There was little success during the period in attracting direct foreign investment.

Both the National Liberation Council (NLC, 1966–1969) and Busia (1969–1972) governments claimed to pursue more open policies, making more serious efforts to secure inflows of long-term public and private capital and embarking on what has been called "an experiment with import liberalization" (Leith, 1974, Ch. 5). Both governments rejected Nkrumah's socialism and made various pro private enterprise statements. Although both governments stated that they wanted more foreign private investment, the major thrust was one of assisting domestic business. The NLC passed a decree setting out a time table for Ghanaianization, and the Busia government supplemented this with further legislation that accelerated the programme. However, there was little change in the degree of state participation in economic activities during the NLC/Busia era. Out of 53 public enterprises and corporations that existed at the end of 1965, 43 remained wholly state-owned at the end of 1971 and five new ones had been created. (Killick 1978: 313).

The National Redemption Council (NRC)/Supreme Military Council (SMC) era of Acheampong and Akuffo (1972–1979) was characterized by a return to a command economy and a resumed expansion of the state in economic activities. In 1975 there was a palace coup that resulted in the change-over from National Redemption Council (NRC) to Supreme Military Council (SMC)[2] Between 1977 and 1979, there were four political events: a palace coup (1978), an attempted coup and a successful coup (both led by Flight Lieutenant Rawlings), and general elections in September 1979 (won by Dr. Limann's Peoples National Party). Again, there was very little success in attracting private investment, partly due to this political turbulence, which may have created a climate hostile to private investment.

During the period of the Peiple's National Redemption Council (PNDC I) (1979) and part of PNDC II (1981–1983), there was extreme repression and control of private sector activity. The economic climate was clouded by official actions that posed serious threats to private businesses. Properties were seized and people's lifetime savings confiscated because they carried out "an act with the intent to sabotage the economy of the state". Among Ghanaian business people, the terms often used to describe the business environment included "mistrust", "harassment" and "the absence of support" (Leechor, 1994: 177). Since the introduction of the ERP, despite more liberal economic policies and rhetoric giving the private sector a leading role, the attitude of government has remained somewhat hostile to the private sector. The government of the PNDC has made anti private sector statements. On 4 June 1993, the head of state used the presidential platform to attack certain private Ghanaian investors for having contributed towards the financing of their political parties.

The financial system remains oligopolistic and oriented towards import-export trade. The largest bank, The Ghana Commercial Bank, was wholly state-owned until 1996 and mainly finances state-owned enterprises.

Measures to improve the investment climate

Investment incentives have been provided under investment codes. The first was the Pioneer and Companies Act of 1959. This was followed by the Capital Investment Act of 1963 (Act 172), which sought to encourage foreign investment. The 1973 Investment Decree (NRCD 141) and the Investment Policy Decree NRCD 329 of 1975, unlike the 1963 Act, encouraged both local and foreign investors. The 1981 Investment Code (Act 437) sought to centralize investment promotion functions at the Capital Investment Board and consolidate all investment legislation. The 1985 Investment Code (PNDCL 116) established the Ghana Investment Centre as the Central Investment Promotion Agency.

All these investment codes have attempted to provide a favourable investment climate by offering incentives to boost private investment. The incentives generally provided include tax holidays, accelerated depreciation allowances, exemption from import duties on machinery and equipment, investment allowances and arrangements for profit repatriation. The need to constantly review the code reflects the lack of appropriate response to the various codes.

Measures that have been taken in recent years to improve the investment climate include gradual removal of administrative and other bottlenecks, review of the tax structure as it relates to private investment and liberalization of the financial system. Corporate tax for some enterprises was reduced to 45% maximum (1991) from 55% previously. Retention and foreign accounts were established to allow for individual companies to retain a portion of revenues earned from exports to finance imports of essential spare parts and raw materials or machinery. And in 1987 and 1988, credit was expanded to ensure adequate financial support for the priority sectors of the economy.

On 29 April 1988, Ghana ratified the convention establishing the Multilateral Investment Guarantee Agency (MIGA) of the World Bank. MIGA aims at encouraging equity investment and other forms of direct foreign investment (DFI) in developing countries, by reducing non-commercial risk. In effect, the MIGA Convention seeks to provide an insurance cover for foreign investors who participate in eligible investments in the productive sectors of the economy of developing countries.

The Ghana Investments Promotion Centre (GIPC) was set up under the GIPC Act of 1994 with the main objective of encouraging and promoting investment. The objective of the Act is to revise the 1985 Investment Code to place more emphasis on private sector investments as an important segment of accelerated economic growth and to consolidate amendments to the code. According to the Act, the 1985 Code is too regulatory and does not encourage the Investment Centre to engage in promotional activities. Also, the attitude of government has changed over time with a more favourable climate now than in the early 1980s.

As part of the measures taken to make credit more readily available to the private sector, Ghana began a process of liberalizing its financial system. Specifically, a financial sector adjustment programme (FINSAP) was initiated and a number of institutional and policy reforms were carried out that culminated in the liberalization of the financial sector by the beginning of 1989.

These measures, introduced to boost private investment, emphasize the importance the government attaches to investment and underscores the need and motivation to do a thorough analysis of private investment in Ghana.

Trends in private and public investment

Because of macroeconomic imbalances, the climate for private savings and investment in Ghana has been poor.[3] Political upheavals in the late 1970s and early 1980s further reduced confidence. Accelerating inflation severely taxed private savings as real interest rates declined to negative rates. Table 1 shows that the inflation rate was as high as 116.5% in 1977 and this increased to 122.8% in 1983. Foreign exchange allocations for most of the productive sectors were sharply reduced and this, in turn, depressed private sector activity. Export incentives were ineffective due to the over-valuation of the cedi. This is corroborated from Table 1 by the fact that the three years during which private investment was lowest (1981-83) corresponded to the period during which the balance of payments and the current account had the worst performance. While the balance of payments deficit averaged $162.4 million the current account deficit averaged $232.9 million. Poorly administered import controls were detrimental to investment by denying machinery, spare parts and raw materials to vital productive and export sectors. The substantial arrears on short-term debt and the uncertainty about government economic policies were other factors inhibiting foreign investment.

Figure 1 shows the behaviour of private and public investment in Ghana between 1970 and 1992. Private investment declined from 7.9% of GDP in 1970 to 4.0% of GDP in 1973. This may be due partly to decreased direct foreign investment, which declined over the same period from 3.1% of GDP to 0.5% of GDP. Private investment then increased to 6.9% in 1974. Thereafter, it declined continuously to 3.3% in 1978. The ratio increased again to 4.7% the following year before declining continuously to its lowest level (within the period) of 2.6% in 1982. Since 1983, there has been a substantial recovery. Between 1985 and 1988, the ratio hovered around 7.0%; it peaked at 8.5% in 1989 but declined again to 7.5% in 1990. Since then there has been a gradual increase in the ratio, to 8.1% in 1992. The behaviour of the public investment ratio has followed a trend similar to that of private investment (Figure 1). The public investment ratio increased from 4.1% of GDP in 1970 to a peak of 5.2% in 1975. Thereafter, it declined continuously to its lowest level of 0.8% in 1983. Since then, there has been a gradual increase reaching 4.8% in 1992.

The improvements in the transportation network and other basic economic infrastructure, as well as the wider availability of foreign exchange and the gradual removal of exchange and trade restrictions, may have paved the way for a recovery in private investment. This may be partly responsible for the strong recovery after 1988, including an increase in direct foreign investment in the gold-mining sector.

Overall, however, the speed and strength of the private sector response have not been satisfactory. A number of factors may have contributed to this, among them the initial poor state of the economy and the time needed to rebuild confidence in the sustainability

of the ERP and in the economic outlook. Also, the tight credit ceilings imposed on commercial banks' loan portfolios, prior to financial liberalization,made credit to the private sector very scarce. The credit markets have been liberalized since 1989, but high interest rates on government financial papers (to squeeze out excess liquidity from the financial system) have crowded out finance to the private sector. This, coupled with the rudimentary state of the capital market, partly explains why private investment in Ghana remains very low in spite of the abundant market reforms (Younger, 1992: 1589). Additionally, distortions in the tax treatment of capital and investment income, particularly high capital gains tax (until 1990) and the withholding tax on dividends, acted as disincentives to new investment and may have retarded the necessary restructuring of many private enterprises.

Figure 1: Private and public investment
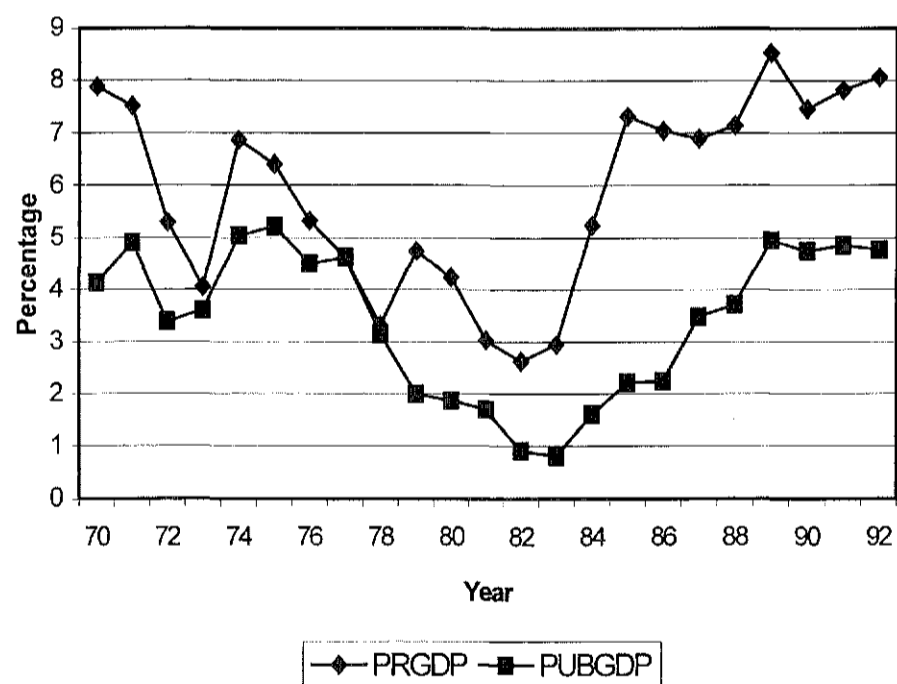
Table 1 : Selected economic indicators

Year	GDP growth (%)	BOP ($'mill)	Current A/C ($'mill)	Public inv. (% of GDP)	Private inv. (% of GDP)	Inflation rate (%)	Budget deficit (% of GDP	Real exchange rate	Foreign direct inv. (% of GDP)
1970	9.8	2.5	-67.7	4.1	7.9	3.0	3.1	4.2	3.06
1971	5.2	5.5	-147.4	4.9	7.5	8.8	4.0	4.1	1.26
1972	-2.5	63.3	109.0	3.4	5.3	10.7	5.4	4.9	0.54
1973	2.9	70.7	127.1	3.6	4.1	17.0	4.4	4.2	0.48
1974	6.9	-91.1	-189.3	5.0	6.9	18.7	7.7	4.1	0.26
1975	-12.4	106.3	-17.6	5.2	6.4	24.5	11.8	3.6	1.54
1976	3.5	-137.3	-74.0	4.5	5.3	62.1	13.3	2.3	-0.32
1977	2.3	-8.4	-79.9	4.6	4.6	116.5	13.2	1.2	0.20
1978	8.5	-62.4	-45.9	3.1	3.3	73.1	9.1	1.1	0.08
1979	-7.8	69.8	123.5	1.2	4.7	54.4	5.8	1.2	-0.03
1980	6.2	-1.3	30.2	1.9	4.2	50.1	10.4	0.9	0.10
1981	-3.5	-288.3	-419.2	1.7	3.0	116.5	5.9	0.5	0.06
1982	-6.9	-17.9	-107.3	0.9	2.6	22.3	4.6	0.4	0.05
1983	-4.6	-180.9	-172.2	0.8	3.0	122.8	2.5	0.6	0.01
1984	8.6	35.6	-38.8	1.6	5.2	39.6	1.5	1.7	0.03
1985	5.1	14.1	-133.9	2.2	7.3	10.4	1.6	2.4	0.09
1986	5.2	-60.8	-85.3	2.2	7.1	24.6	-0.6	3.0	0.08
1987	4.8	140.1	-97.9	3.5	6.9	39.8	-1.2	4.1	0.10
1988	5.6	181.1	-67.1	3.7	7.1	31.4	-0.9	4.0	0.10
1989	5.1	156.6	-93.9	4.9	8.5	25.2	-1.3	4.5	0.29
1990	3.3	105.9	-223.2	4.7	7.5	37.2	-0.6	4.1	0.24
1991	5.3	136.7	-252.1	8.2	8.7	18.0	-2.0	3.9	0.30
1992	3.9	-122.8	-377.0	9.1	4.7	10.1	3.3	4.2	0.35

4. Methodology

Data sources and sampling

Both primary and secondary sources of data were used for the analysis. The secondary data were obtained from such publications as *Quarterly Digest of Statistics*, World Tables and International Financial Statistics. The data on public and private investment were obtained from the Ghana Statistical Service. The cross-sectional analysis was based on primary data collected via a questionnaire survey of a sample of 116 manufacturing firms. The purpose of the survey was to complement the time series analysis. There are certain variables (especially qualitative ones—political instability, policy uncertainty, perceptions about the economy, etc.) that may affect private investment but cannot be captured in the time series analysis. Additionally, it is important to examine whether the conclusions of the time series analysis are consistent with firms' perceptions of the importance of those variables in affecting their investment behaviour.

Two sources of information on industrial firms were used in the choice of the sampling frame, the *Ghana Directory of Industrial Establishments 1988* and the *Ghana Exporters' Directory 1991*. The sample was not chosen randomly; attempts were made to include as m^any exporters as possible. The non-exporters were stratified by type of economic activity according to the three-digit Standard Industrial Classification. Within each stratum, a sample of firms was selected. The sampling process involved replacing firms that could not be reached or were not prepared to cooperate, by other firms. The firms were selected from Greater Accra, Ashanti, Western and Central Regions of Ghana. These four regions account for about 80% of manufacturing activity in the country according to the *Ghana Industrial Census* 1987 (Ghana Statistical Service, 1991).

Time series model

Following the discussion in Section 2, we specify the determinants of private investment as consisting of Keynesian, neoclassical, and uncertainty variables. The model for the time series analysis consists of the following equation:

$$PRGDP = F[\ LAGPRGDP, PUBGDP, REER, RCREDGR, REGIM, MINS, \\ RRATE, TXRAT, INVDEF, D, GDPGR,] \tag{1}$$

where

PRGDP	=	nominal private investment as a percentage of nominal GDP
LAGPRGDP	=	Lagged value of PRGDP (proxy for investment climate)
PUBGDP	=	Nominal public investment as a percentage of nominal GDP
REER	=	real exchange rate = nominal exchange rate deflated by the ratio of Ghana consumer price index (CPI) and US wholesale price index (REER is defined in such way that an increase implies depreciation)
RCREDGR	=	growth rate of real credit to the private sector
RRATE	=	real rate of interest rate (proxied by the real lending rate)
MINS	=	macroeconomic instability: = the first principal components of INF, CVRER, DTGDP, and BPREM[4] where INF =INFL/ (1 + INFL). INFL = inflation rate; DTGDP = external debt as a percentage of GDP; CVRER = moving coefficient of variation of REER = standard deviation over a two year period, divided by a two year moving average; and BPREM = black market premium = black market rate/exchange rate.)
GDPGR	=	growth rate of real GDP
INVDEF	=	Investment deflator (proxy for user cost of capital)
D	=	dummy for political instability : D = 1 for successful coup years, and zero otherwise.[5]
TXRAT	=	Corporate tax as a percentage of total tax revenue
REGIM	=	measure of trade regime.

With regard to REGIM, two cycles may be identified in the evolution of Ghana's trade regimes since the 1950s. Each cycle consists of five phases: introduction of controlled regime (phase I), breakdown of controlled system (phase II), attempted liberalization (phase III), import liberalization (phase IV) and liberal trade regime (phase V). The cycles are as follows :

- First Cycle: 1950 –1961, phase V
                      1961 –1963, phase I
                      1963 –1966, phase II
                      1966 –1967, phase III
                      1967 –1971, phase IV
- Second cycle: 1972   phase I
                      1973 –1983, phase II
                      1983 –1986, phase III
                      1986 –1989, phase IV
                      1990 –present, phase V

Numbers 1 to 5 were used to represent the different phases: 5 for phase I, 4 for phase II, 3 for phase III, 2 for phase IV, and 1 for phase V, so that the higher the number assigned to a given phase, the greater the control. One would also expect a negative relationship between private investment and the measure of trade regime. The first cycle has been analysed in detail by Leith (1974) and the second cycle has been analysed by Jebuni et al. (1994).

A recent track record of private investment is expected to induce the private investor (especially the new investor) to invest more since this may be an indication of a good investment climate. Thus, LAGPRGDP is expected to have a positive impact on private investment. Given the complaints from the private sector about credit unavailability, we would expect RCREDGR to have a positive relationship with private investment.

Theoretically, the effect of public investment on private investment is ambiguous. While government investment in infrastructure is expected to be complementary to private investment, government investment in non-infrastructure may compete with private investment especially if the government competes with the private sector for funds or in the product market. Thus the effect of public investment on private investment is ambiguous. Blejer and Khan (1984) show (by decomposing public investment into infrastructural and non-infrastructural investment) that government investment in infrastructure is complementary to private investment whereas other types of government investment are not.

The sign of the real interest rate is an empirical issue and depends on whether the data support the McKinnon–Shaw hypothesis or the neoclassical model.[6]

The effect of the real exchange rate on private investment is ambiguous. Chibber and Mansoor (1990) argue that a real depreciation acts as an adverse supply shock in the "production" of investment goods. In the short run, a real depreciation will raise the price of new capital goods in terms of home goods (if capital goods have an import content) and this will tend to discourage new investment. In the case of foreign-indebted firms, a depreciation raises the burden of debt; if domestic credit markets are imperfect (as is often the case in developing countries) these firms may face credit constraints, and this will tend to reduce investment. Chibber and Mansoor (1990: 17) report that the empirical work by Easterly (1989) on Mexico showed a devaluation reducing private investment. A devaluation may also affect investment through its effect on aggregate demand. If the net effect is contractionary, then the slump in economic activity is likely to lead to a reduction in investment. However, if the net effect is expansionary, a devaluation may raise real incomes and stimulate investment. Also, if a devaluation is considered inevitable, then when it happens, confidence in the future may be raised. A devaluation may affect the real price of imported inputs that are used in conjunction with capital goods to produce output, and may also affect interest rates, which in turn will affect private investment. The net effect of these factors cannot be determined *a priori*. Even if short-run effects of depreciation are negative due to increases in the real costs of imported capital and inputs, the long-run effects may still be positive.

MINS is expected to have a negative sign. Theoretically, one would expect the external debt burden to hamper private investment through at least three channels. First, debt service requires an external transfer that, under conditions of limited external financing,

leads to reduced investible resources. Second, the anticipated "tax" associated with future debt service (the debt overhang) reduces the anticipated return on investment. Third, uncertainty about the policies needed in the future to meet an equally uncertain debt service also tends to depress investment (Serven and Solimano, 1992 or 1993? 4). All four components of MINS are expected to have negative influences on investment.

The measure of political instability is expected to influence investment negatively. INVDEF and TXRAT are expected to impact negatively on private investment while GDPGR which captures the market potential, is expected to affect private investment positively.

Cross-sectional analysis

A number of factors that affect private investment cannot be adequately captured in a time series analysis. Thus, the cross-sectional analysis is intended to probe further to learn more about the determinants of private investment through the administration of a questionnaire. Factors such as political and economic instability, credibility of government policies, various types of uncertainties, official attitude towards investors and others may affect private investment. The cross-sectional analysis is also intended to ascertain whether factors identified in the time series analysis as significant determinants of private investment still act as constraints to private investment. Since the time series analysis is undertaken over a period of time and the survey is undertaken at a point in time, the consistency of the two results will imply that the constraints identified in the regression analysis still act as constraints at the time of the survey.

To draw up the questionnaire, preliminary interviews were conducted by the principal researcher with officials from the Ministry of Trade and Industries and the Ghana Investment Centre. In addition, personnel from the Association of Ghana Industries (AGI) as well as certain individuals and industrialists were interviewed.

5. Results

Time series analysis

Private investment equation[7]

A number of trials were made for this equation, six of which have been reported in Table 2. Public investment ratio has a positive coefficient in all the trials. In the reported results, it is significant at the 1% level in three of the equations and significant at the 10% level in the other three. This result suggests a "crowding in" effect of public investment. It was not possible to decompose the public investment into infrastructural and non-infrastructural investment. It does appear that the positive externality of infrastructural investment outweighs the negative effect of non-infrastructural investment. This result is consistent with the one obtained in the case of Cote d'Ivoire (Kouassy and Bohoun, 1992: 25). The fact that only 17.5% of the firms interviewed said lack of infrastructure is a major constraint may suggest that at the time the survey was conducted, a lot of development in infrastructure had already taken place and therefore it was no longer a problem.

The growth rate of real credit to the private sector has a positive sign in all the trials and is significant in all of them. It is significant at the 1% level in all the reported equations. This is strongly supported by the survey, where 69% of the firms claimed that the problem of getting credit is a major obstacle to investment. Moreover, 37% of the respondents whose fixed investments have not increased over the last three years gave credit problems as the reason. Additionally, of the non-exporters who are considering producing for the export market, 27.3% mentioned credit as the main obstacle. Thus the availability of credit has not only been a major obstacle to private investment, lack of credit is still a problem. Even though real credit growth is highly significant in explaining private investment its effect is small.

The measure of macroeconomic instability has a negative sign in all the trials and is always significant at the 1% level when RRATE is excluded from the equation (MINS and RRATE are highly correlated). According to Rodrik, "Uncertainty matters a lot. Indeed it may matter so much as to render insignificant some of the traditional determinants of investment, such as the cost of credit, level of profitability, and tax incentives" (Rodrik, in Serven and Solimano, 1993: 280–281). This result is also supported by the survey, where 45% asserted that economic instability is a major obstacle to investment.

Table.2: Regression results

Dependent variable: Private investment - GDP Ratio

Variable	Equation number						Beta Coefficients (eq. 3)
	1	2	3	4	5	6	
CONST	3.7228** (0.0277)	4.4224*** (5.5739)	6.5475*** (4.2256)	6.5738*** (7.1201)	6.1016*** (6.4535)	5.9552*** (11.1627)	
LAGPRGDP	0.2923*** (3.1322)	0.2816** (2.7837)	0.2251** (2.2987)	–	–	–	0.2278
PUBGDP	0.2823*** (3.5374)	0.1483* (1.9518)	0.1792* (2.0515)	0.3143*** (3.2299)	0.2088* (1.7197)	0.3682*** (3.1927)	0.1412
RCREDGR	0.0125*** (3.1940)	0.0208*** (6.5650)	0.0194*** (6.7246)	0.0183*** (4.4426)	0.0170*** (3.9516)	0.0142*** (3.6929)	0.3534
REGIM	-0.0359 (-0.1896)	-0.2192* (-1.8150)	-0.6705* (-1.9674)	-0.5586** (-2.3802)	-0.6714*** (-2.8499)	-0.4505*** (-4.2392)	-0.4470
D	-3.2577*** (-4.9198)	-1.8239*** (-5.1765)	-1.7898*** (-4.9085)	-1.2140** (-2.3061)	-1.5675** (-2.6776)	-1.3382*** (-2.8955)	-0.3071
MINS	-	-0.2870*** (-4.5172)	-0.3269*** (-6.4369)	-0.3641*** (-3.9677)	-	-0.2469*** (-4.5040)	-0.3133
REER	-	-	-	-	0.4718*** (3.8551)	0.1420 (0.8715)	-
RRATE	-	-	-	-	-	0.0148** (2.2165)	-
INVDEF	-	-	-0.0036 (-1.3725)	-0004 (-0.2076)	-0.0016 (-0.7806)	-	-0.2009
GDPGR	-	-	-0.0344* (-2.0914)	-0.0280 (-0.9908)	-0.0402 (-1.3899)	-	-0.1015
BPREM	0.1294 (1.5332)	-	-	-	-	-	
DTGDP	1.9229* (1.8465)	-	-	-	-	-	
INF	-4.8773*** (-4.0565)						
CVRER	0.3823 (0.6245)	-	-	-	-	-	
Adj. R2	0.9649	0.9410	0.9600	0.8849	0.8820	0.9055	
DW-Stat	2.5286	1.8449	2.3861	1.9884	2.0372	2.0148	
F-Stat		46.0	36.9	44.2	20.2	19.7	28.4

*** Significant at the 1% level
** Significant at the 5% level
* Significant at the 10% level
t-ratios are in parentheses

However, for the individual components of the overall measure of instability, INF has a negative sign and is significant at the 1% level while the DTGDP has a positive sign and is significant at the 10% level; BPREM and CVRER are insignificant. Therefore, partial proxies for macroeconomic instability may not be powerful investment inhibitors if taken individually. Investment is depressed by overall instability. The insignificance of the coefficient of variation is not supported by the survey where 83% of the respondents ranked exchange rate variability as a major constraint and 51% responded that exchange rate uncertainty was the most serious type of uncertainty. Again, this may be due to the fact that in the past the exchange rate was fixed but currently it is floating and depreciating at an alarming rate and therefore causing a lot of concern for investors. The positive sign of the debt/GDP ratio is contrary to the results obtained for samples of Latin American countries (Cardoso, in Serven and Solimano, 1993, ch. 7), East Asian countries (Larrain and Vergara, in Serven and Solimano, 1993ch. 8) and a number of other developing countries (Serven and Solimano, 1993ch. 6) in which the variable was significant and negatively related to private investment.

The real exchange rate has a positive sign when it is significant but its effect is difficult to disentangle from the public investment ratio and the measure of macroeconomic instability as shown by the high correlation coefficient between them. Anytime the MINS variable appears in the equation, REER is insignificant as shown in Equation 6. When MINS is excluded, REER is significant most of the time. The real exchange rate variable is significant at the 1% level in Equation 5. This suggests that a depreciation of the exchange rate has a positive influence on private investment. This may be due to the effect a real depreciation has on investment in the exports sector.

A study by Fosu (1992) has shown that the response of agricultural exports to a change in the real exchange rate is elastic. Fosu shows that a 10% depreciation of the real exchange rate stimulates a 1.82% increase in cocoa exports and a 4.42% increase in coffee exports. Thus, other things being equal, the exchange rate policy of Ghana's economic recovery programme may have contributed to the recovery of private investment.

The real interest rate has a positive sign in most of the trials and is highly significant when MINS is excluded from the equation. Thus, the data does support the McKinnon–Shaw hypothesis. This result is at variance with the cross-sectional analysis where 82% of the respondents ranked the cost of credit as a major obstacle. This may be due to the fact that, previously, interest rates were controlled and therefore lending rates were low. However, the liberalized system and the high interest rates are now creating problems for investors. It is also important to note that 13% of the respondents claimed they have shifted some of their portfolio into short-term activities such as purchases of treasury bills. About 36% of those who shifted claimed that it was because of high yield and another 21% claimed it was because of safety. Thus, the monetization of the fiscal deficit is crowding out private investment by attracting investible funds from business activities into treasury bills.

The trade regime has a negative sign in all the trials and is highly significant in almost all of them. It is significant at the 10% level in eEquations 2 and 3, 5% level in equation 4 and significant at the 1% level in equations 5 and 6. This shows that the controlled

regime has had a detrimental effect on private investment. This is due to the fact that Ghana's controlled history has been characterized by over-valued exchange rates, lack of foreign exchange, corrupt and erratic import licensing, foreign exchange quotas for various sectors, and rent-seeking activities. These hamper the acquisition of foreign exchange for the importation of needed inputs for investment. The controlled regime is also likely to discourage foreign direct investment if economic agents realize that the controls are not sustainable.

While the controlled regime has been detrimental to private investment, the results of the survey indicate skepticism about the current trade liberalization exercise. About 40% of the respondents claimed that the pace is too fast, while 43.7% asserted that the exercise had adversely affected their businesses.

The measure of political instability, the successful coup dummy, has a negative sign in all the trials and is highly significant in all Equation 1. This suggests that the military takeovers may have created a climate hostile to private investment. This is, however, not supported by the survey results where only 22% claimed that political uncertainty acts as a major constraint to their investments.

Lagged private investment-GDP ratio was found to be positive and highly significant. Thus, past investments, which can be used as a proxy for the investment climate, constitute a good indicator for current investment decisions. The proxy for the user cost of capital, the INVDEF, had the expected negative sign but is insignificant in all the trials. This is not a surprising result for a developing country where structural constraints are most of the time more important in investment decisions. The GDP growth rate has the wrong sign in all the trials but is only marginally significant in a few of them.

The concern from the survey that the high level of taxes is a major constraint to investment (54.5%) did not support the time series analysis. The corporate tax revenue as a proportion of total tax revenue was found to be insignificant and dropped from subsequent trials.[8]

The last column of Table 2 shows the "beta" coefficients for Equation 3. This equation has the highest adjusted R^2 among the equations that have MINS (rather than its components) as an explanatory variable. The "beta" coefficients measure the change in the private investment–GDP ratio corresponding to a unit change in each explanatory variable, holding other explanatory variables constant and measuring all changes in standard deviation units. The beta coefficients, *s, were obtained from the estimated coefficients, s, from the relationship * = (sk/sy) , where sk is the standard deviation of the kth explanatory variable and sy is the standard deviation of the dependent variable. The beta coefficients reveal that the trade regime variable has the largest influence on private investment. A 1% increase in this variable reduces private investment by 0.44%. The growth of real credit to the private sector has the next highest effect. A 1% increase in this variable increases private investment by 0.35%. The next two most important variables are the macroeconomic instability and political instability. Of the explanatory variables that appear in Equation 3, the GDP growth variable has the least influence on private investment.

Table 3: Correlation coefficients between some explanatory variables

	LAGPRGDP	PUBGDP	REER	RCREDGR	REGIM	MINS	INVDEF	RRATE	INF	BPREM	CVRER	DTGDP	GDPGR
LAGPRGDP	1	0.70	0.77	0.22	-0.60	-0.68	0.56	0.48	-0.45	-0.70	-0.42	0.68	-0.19
PUBGDP		1	0.72	0.14	-0.35	-0.36	0.32	0.31	-0.34	-0.73	-0.42	0.37	0.20
REER			1	0.32	-0.47	-0.87	0.42	0.71	-0.72	-0.82	-0.52	0.66	0.30
RCREDGR				1	-0.47	-0.36	0.32	0.50	-0.47	-0.27	-0.04	0.42	0.40
REGIM					1	0.41	-0.81	-0.47	0.36	0.43	0.28	-0.80	-0.51
MINS						1	-0.36	-0.86	0.87	0.69	0.78	-0.55	-0.29
INVDEF							1	0.36	-0.17	-0.36	-0.25	0.87	0.30
RRATE								1	-0.94	-0.49	-0.54	0.54	0.30
INF									1	0.47	0.54	-0.37	-0.25
BPREM										1	0.26	-0.59	-0.38
CVRER											1	-0.29	-0.08
DTGDP												1	0.36
GDPGR													1

Figure 2: Macroeconomic instability and real exchange rate

Year

MINS — RER
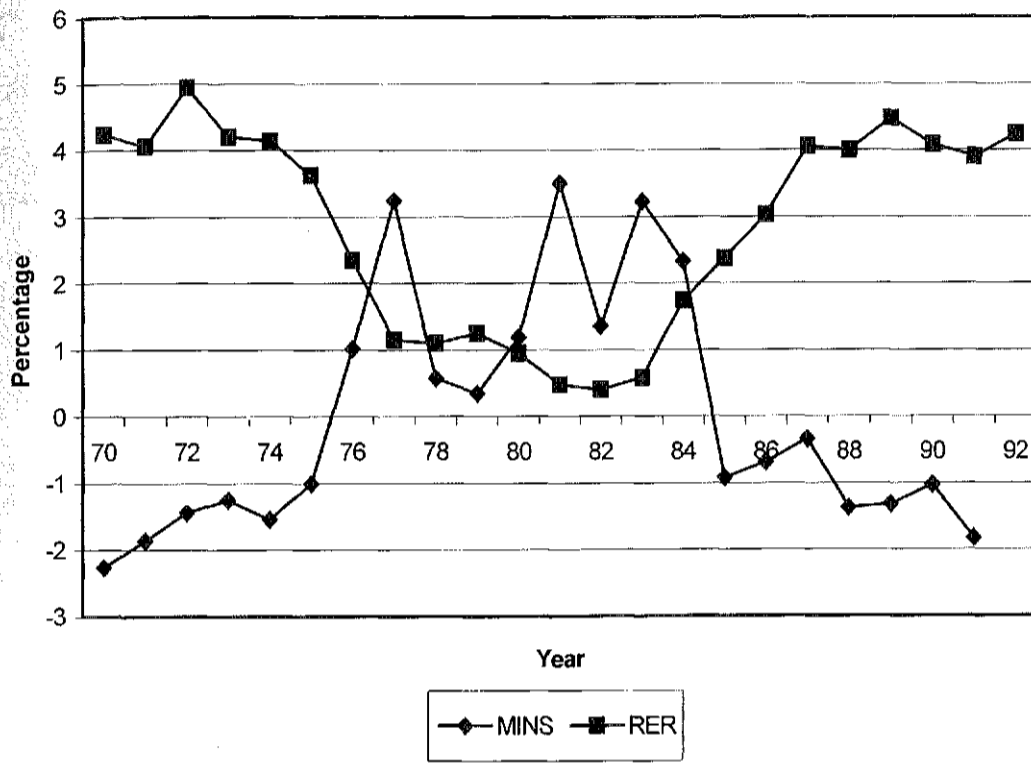
Figure 3: Growth of real credit to the private sector

Year

RCREDGR
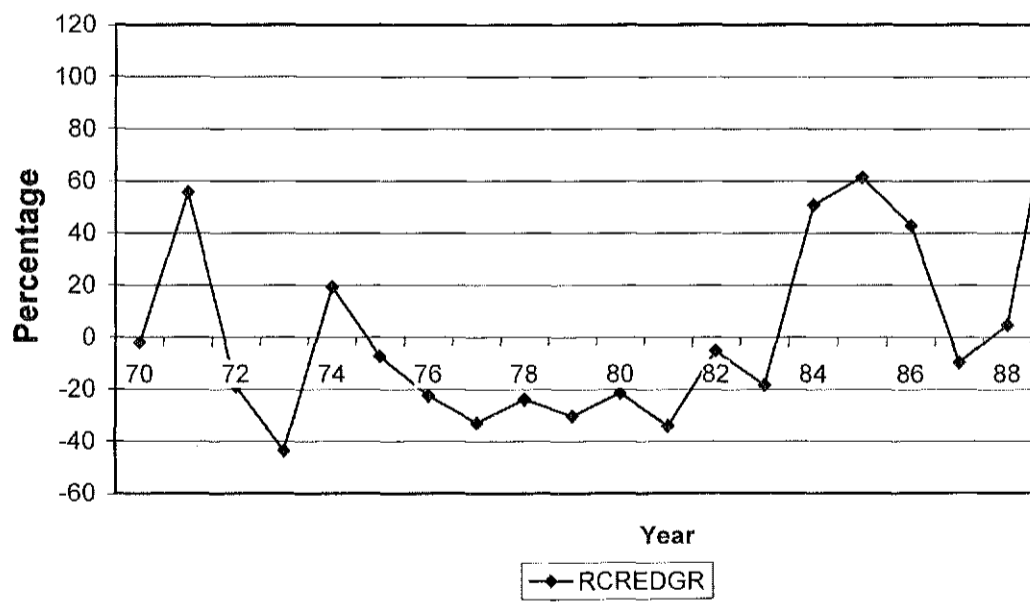
6. Conclusions and recommendations

This study has analysed the determinants of private investment in Ghana. This was done by complementing a time series analysis with a cross-sectional one. From many perspectives, the cross-sectional analysis supports the time series analysis.

The study shows that private investment and public investment are complementary and thus there is the need for the government to continue to develop the infrastructural base of the economy to boost the private sector.

The growth of real credit to the private sector had a positive and statistically significant effect on private investment. This is strongly supported by the survey results, and suggests that credit has been a problem and remains a problem for private investment. The question of finance must therefore be addressed in order to ensure continuing participation of the private sector in investment.

While the time series analysis indicates that the restrictive trade regime of the past has had a detrimental effect on private investment, the survey results support trade liberalization in moderation and call for a review of the exercise.

Individual components of macroeconomic instability were found to be insignificant. However, the overall measure was identified as a major hindrance to private investment both in the time series analysis and in the survey. The results suggest that policies that address only some components of macroeconomic instability may not be enough to improve private investment. For policies to improve private sector response, all four components—the real exchange rate, the debt burden, the black market premium, and the inflation rate—must be addressed simultaneously.

The econometric results suggest that the military takeovers may have created a climate hostile to private investment. This is not, however, strongly supported by the survey results where only 22% claimed that political uncertainty acts as a major constraint to their investments. Lagged private investment–GDP ratio was found to be positive and highly significant. Thus, the investment climate constitutes a good indicator for current investment decisions.

The beta coefficients reveal that the four most important variables (in terms of the magnitude of their influence on private investment) are the trade regime, growth of real credit to the private sector, macroeconomic instability and political instability.

It is also clear from the survey that such factors as official attitude towards private investors and lack of credibility in government policies are hindrances to private investment. If the private sector is to be the "engine of growth" in the economy, then these lapses, among others, need to be given serious attention.

Notes

1. This section dwells on Killick (1978).

2. In 1975, the service commanders seized the initiative and forced through a change in the structure of the NRC. The SMC, which replaced the NRC, contained the service commanders of the military stations as well as the Inspector General of Police (IGP).

3. The government budget recorded deficits throughout the period 1970–1990 until after 1986 when surpluses were recorded. With the exception of five years (1972–1973, 1975, 1979 and 1980), the current account also recorded deficits throughout the period.

4. This was used because the simple sum used earlier was dominated by the BPREM variable, $MINS = \sum_i l_i Z_i$, where Z_is are the standardized values of BPREM, DTGDP, CVRER, and INF and the are the loadings. For more discussion, see Koutsoyiannis (1977), ch. 17.

5. A successful coup occurred on 31 December 1981, but the effects of the coup were felt from 1982.

6. The McKinnon–Shaw hypothesis deals with the deposit rate but the lending rate is highly and positively correlated with the deposit rate.

7. There is very high multi-collinearity among some of the explanatory variables, and attempts have been made not to use them in the same equation. Table 3 shows the correlation coefficient between some of the explanatory variables.

8. The corporate tax revenue as a percentage of total tax revenue was used because over 70% of the firms interviewed were of the limited liability type.

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Appendix A: Summary of survey results

Table A1: Sample characteristics

Size	No. of employees	#	%
Small	1 – 30	44	43.6
Medium	31 – 99	38	37.6
Large	100 and above	19	18.8
Total		101	100.0

Sector	#	%
Furniture/wood works	30	25.9
Aluminium/metal works	27	23.3
Food products	17	14.7
Fabrics/textiles	7	6.0
Others	35	30.2
Total	116	100.0

Type of ownership	#	%
Private Ghanaians only	90	78.3
Private Ghanaian-foreign	17	14.8
Private foreign	4	3.5
State-private	4	3.5
Total	115	100.0

Legal status	#	%
Limited liability	85	73.3
Sole proprietorship	24	20.7
Partnership	5	4.3
Family business	2	1.7
Total	116	100.0

Export status	#	%
Exporters	34	30.3
Non exporters	82	69.7
Total	116	100.0

Table A2: Future intentions of non-exporters

	#	%
Will export	53	64.6
Will not export	29	35.4
Total	82	100.0

Table A3: Constraints facing future exporters

	#	%
Credit	15	27.3
Lack of demand	13	23.6
Cannot meet local demand	6	10.9
Other	21	38.2
Total	55	100.0

Table A4: After tax profits

	#	%
Yes	83	76.1
No	26	23.9
Total	109	100.0

Table A5: Behaviour of fixed investment over last three years

	#	%
Increased	64	60.4
Unchanged	35	33.0
Decreased	7	6.6
Total	106	100.0

Table A6: Reasons why fixed investment has not increased

	#	%
Lack of credit	10	37.0
Lack of demand	7	25.9
Others	10	37.0
Total	27	99.9

Table A7: Obstacles to investment

Obstacle	Major		Minor		Not at All		Total
	#	%	#	%	#	%	No.
Problem of getting credit	73	68.9	21	19.8	12	11.3	106
Uncertainty about economy	45	44.6	40	39.6	16	15.8	101
Govt. attitude towards business	33	33.0	42	42.0	25	25.0	100
High level of taxes	57	54.8	42	40.4	5	4.8	104
High interest ràtes	85	81.7	16	15.4	3	2.9	104
Lack of demand	24	24.2	39	39.4	36	36.4	99
Lack of raw materials	16	16.2	36	36.4	47	47.5	99
Infrastructure	17	17.5	43	44.3	37	38.1	97
Political uncertainty	13	22.0	22	37.3	24	40.7	59
Lack of credibility in policies	21	37.5	24	42.9	11	19.6	56

Table A8: Uncertainties as obstacles to investment

Obstacle	Major		Minor		Not at all		Total
	#	%	#	%	#	%	No.
Exchange rate uncertainty	75	83.3	11	12.2	4	4.4	90
Demand uncertainty	17	21.8	39	50.0	22	28.2	78
Interest rate uncertainty	59	71.1	22	26.5	2	2.4	83
Political uncertainty	23	29.1	38	48.1	18	22.8	79
Uncertainty about taxes	36	45.6	35	44.3	8	10.1	79

Table A9: Most serious type of uncertainty

	#	%
Exchange rate uncertainty	55	50.9
Demand uncertainty	11	10.2
Interest rate uncertainty	18	16.7
Political uncertainty	10	9.3
Uncertainty about taxes	10	9.3
Other	4	3.7
Total	108	100.1

Table A10: Obstacles as a new investor

Obstacle	Major		Moderate		Minor		No problem		Total #
	#	%	#	%	#	%	#	%	
Getting started	5	4.6	11	10.2	25	23.1	67	62.0	108
Govt. attitude	12	11.7	28	27.2	32	31.1	31	30.1	103
Economic uncertainty	53	49.1	23	21.3	23	21.3	9	8.3	108
Political instability	19	17.9	33	31.1	23	21.7	31	29.2	106
Getting credit	81	74.3	17	15.6	6	5.5	5	4.6	109
Cost of credit	82	76.6	13	12.1	10	9.3	2	1.9	107
Level of taxes	55	51.9	33	31.1	13	12.3	5	4.7	106
Utilities	14	13.3	21	20.0	35	33.3	35	33.3	105

Table A11: Impression about government pronouncements/statements and attitude towards business (%)

| | Pronouncements | | Attitude | |
	#	%	#	%
Very negative	16	14.3	11	9.9
Somehow negative	30	26.8	30	27.0
Somehow positive	48	42.9	54	48.6
Very positive	11	9.8	12	10.8
Other	7	6.3	4	3.6
	112	100.1	111	99.9

Table A12: Perception of business environment and the way policy is implemented vis-a-vis private investment

| | Govt. policy | | Business environment | |
	#	%	#	%
Discourages private investment	31	37.8	29	29.3
Encourages private investment	20	24.4	40	40.4
Slow/delays	13	15.9		
Uncertain/unpredictable			16	16.2
Other	18	22.0	14	14.1
Total	82	100.0	99	100.0

A13: Policies to encourage private investment (%)

	Stable Exchange Rate	Political Stability	Protect Local Industry	Easier Access to Credit	Tax Rebate	Lower Interest Rate	Other
Encourage long-term investment	14.4	14.9	3.0	15.1	12.3	11.5	29.1
Make it easier for companies to operate	13.4	6.2	4.5	13.6	18.4	13.1	30.8
Make it easier for companies to expand	12.9	6.1	2.3	15.4	13.2	14.7	35.4
Encourage more Ghanaians to invest	13.0	12.1	3.5	11.0	12.1	9.0	39.2
Attract more foreign investment	16.6	23.1	—	2.4	8.2	6.8	39.9

Table A14: Investment diversification

Have you shifted some of your portfolio into short-term activities such as T-bills?

	#	%
Yes	14	12.7
No	96	87.3
Total	110	100.0

Table A15: If yes, why shift in portfolio?

	#	%
High yield	5	35.7
Safety	3	21.4
Other	6	42.9
Total	14	100.0

Table A16: Choice between investing in productive and commercial sectors

	#	%
Productive sector	59	54.6
Commercial sector	47	43.5
Other	2	1.9
Total	108	100.0

Table A17: Impression about pace of trade liberalization

	#	%
Slow	14	12.2
All right	37	32.2
Fast	17	14.8
Too fast	46	40.0
Other	1	0.9
Total	115	100.1

Table A18: Effect of trade liberalization on business

	#	%
Adverse	45	43.7
Positive	13	12.6
No effect	31	30.1
Other	14	13.6
Total	103	100.0

Appendix B: Survey questionnaire

This appendix describes the questionnaire used to collect the firm-level data on the manufacturing enterprises.

SECTOR ....

LOCATION ....

NAME OF FIRM ....

ADDRESS : ....

....

PERSON TO CONTACT: ....

INTERVIEWER ....

DATE OF INTERVIEW ....

(A)   FIRM CHARACTERISTICS

1.   When did the business begin production?

        ....

2.   What is the main product of the establishment?

        ....

3.   What is the major secondary product of the establishment?

        ....

4.   Is the establishment a part or a branch of a parent enterprise?   1. No   2. Yes

5.   What is the ownership structure of the enterprise?(circle only one)

        1. Private Ghanaians only
        2. Private Foreigners only
        3. Private Ghanaian–Foreign ownership
        4. State and private–Ghanaian
        5. State and Private–Foreign
        6. State and Private–Ghanaian and Foreign

6.   What is the legal status of this firm? (circle only one)

        1. Sole proprietorship
        2. Partnership
        3. Family business
        4. Limited liability
        5. Cooperative
        6. Multinational corporation
        7. Other (specify) ....

7.   Does your firm export its product?

        1. No
        2. Yes, exports directly
        3. Yes, exports indirectly through traders
        4. Yes, exports both directly and indirectly

.8.   If yes, about what percentage of output was exported in

        (a) 1992? ___%
        (b) 1993? ___%

9   If no, is your firm considering producing for export?

        1. No   2. Yes

10.   If No, why not?

11.   If yes, what is the main obstacle?

        ....

12.   What are the other obstacles?

        ....

13.   At what percentage of full capacity (given existing equipment) did you operate in
        the following years?

        (a) 1992........(b) 1993..............

14.   Do you expect to increase capacity utilization next year?

        1. No   2. Yes   3. Don't know

15. By how much more could you increase output with existing plant if there is unlimited demand and you could hire more workers? ____% more than at present

16. Is the business making after-tax profits? 1. No 2. Yes

17. Are your profits over the last 3 years   1. Rising?   2. About the same?

   3. Declining?   4. N/A

18. What are your business plans for the future? (circle only one)
   1. Produce the same goods and maintain production at the same level and composition
   2. Maintain production level but switch to a new product
   3. Substantially expand production and capacity (buy new machines or increase size of firm)
   4. Increase capacity and introduce new product
   5. Expand production without substantially changing capacity (keep firm size about the same)
   6. Reduce production
   7. Other (specify).......................................

19. If the plan is to stay at the same level of production or reduce production, why are you not interested in expanding production?

20. Have your fixed investments over the last 3 years been
   1. Rising?   2. About the same?   3. Declining?
   4. N/A

21. If fixed investments have been declining, what reasons may be assigned to this?
   ....
   ....
   ....

22. Has the enterprise shifted some of its portfolio from manufacturing into other activities such as trading, purchase of treasury bills, government bonds, etc.?
   1. No 2. Yes

23. If yes, why the shift? ....
   ....

(B) CONSTRAINTS ON INVESTMENT

24. What is your most significant obstacle to expanding your investment?
   (circle only one)
   1. Uncertainty about the economy (uncertainty about interest rates, exchange rate, demand for product, etc)
   2. Government attitude towards private investment
   3. Level of taxes too high
   4. Problem of getting credit
   5. Interest rates too high
   6. Lack of demand
   7 Lack of raw materials
   8. Infrastructure

9. Other (specify) ....

25. Rank the following obstacles to investment (0 = not at all, 1 = moderate, 2 = major obstacle)
     1. Uncertainty about the economy
     2. Government attitude towards private investment
     3. Level of taxes too high
     4. Problem of getting credit
     5. Interest rates too high
     6. Lack of demand
     7. Lack of raw materials
     8. Infrastructure
     9. Other (specify) ....

26. Is any form of uncertainty about the economy a constraint to expanding your business? 1. No 2. Yes

27. If yes to Q26, rank the following obstacles to investment [0 = not at all, 1 = moderate, 2 = major]
     1. Exchange rate uncertainty
     2. Demand uncertainty
     3. Interest rate uncertainty
     4. Political uncertainty
     5. Uncertainty about taxes
     6. Other (specify) ....

28. What is the most serious type of uncertainty? (circle only one)
     1. Exchange rate uncertainty
     2. Demand uncertainty
     3. Interest rate uncertainty
     4. Political uncertainty
     5. Uncertainty about taxes
     6. Other (specify) ....

(C) **PERCEPTIONS ABOUT THE ECONOMY AND BUSSINES ENVIRONMENT**

29. What do you think of current government policies?
     ....

30. What is your impression of the pace of the trade liberalization scheme?
     1. Too slow
     2. Slow
     3. All right
     4. Fast 5. Too fast
     8. Other (specify) ....

31. How has the trade liberalization program affected your business?
     ....

32. What is your impression of the divestiture programme?

....

33. How has the divestiture programme affected your business?

....

34. What is your impression about the future direction of the economy?
1. Stability with major improvement
2. Stability with slight improvement
3. Remain the same
4. Slight deterioration
5. Major deterioration
6. Unstable
7. Other (specify) ....

35. What are your impressions about government pronouncements/statements towards business?
0. Very negative
1. Somehow negative
2. Somehow positive
3. Very positive
4. Other (specify)

36. How do you perceive the current business environment?

....

37. What is your impression about government attitude towards business?
1. Very positive
2. Somehow positive
3. Somehow negative
4. Very negative
5. Other (specify)..

Foreign Investment
38. Do you think Ghana is attractive to foreign investors?
1. No   2. Yes   3 Don't know
39. If yes, what is the main reason for a foreign investor to invest in Ghana?
40. If no, what is the most significant obstacle facing foreign investors in Ghana?
1. Government attitude towards foreign investment negative
2. Uncertainty in investment decisions
3. Too many local firms have collapsed and this is an index of the degree of success of foreign firms
4. Other (specify)
5. N/A
41. How do you think foreign investors perceive the current business environment?
0. Hostile to private investment
1. Not conducive to private investment
2. Somewhat conducive to private investment
3. Very conducive to private investment

4. Other (specify)
5. N/A

Credit
42.   Has your firm applied for a bank loan in the past three years? 1. No 2. Yes
43.   If Yes,
       (a) How many applications have been made?...........
       (b) How many applications were successful? ....
44.   What did you think of the rate of interest you were charged?
       1. Very high   2. High   3. All right 4. Low
       5. Very low   8. Other (specify)   9.   N/A
45.   For what purpose was the last loan received intended?
       1. Working capital only
       2. Investment to expand business
       3. Working capital and investment
       4. Investment to start business
       5. Other (specify) ....
46.   When did you last buy a major piece of equipment? ......
47.   Why did you buy it?
       1. To replace obsolete equipment
       2. To expand production of existing product
       3. To introduce a new line of production
       4. Other (specify)......................
48.   What was the main source of finance to pay for it?
       1. Profit from business
       2. Personal savings
       3. Loan from savings group or credit union
       4. Loan from money lender
       5. Loan from local bank
       6. Credit from supplier
       7. Other, specify
49.   How easy is access to bank finance for investment?
       1. Very easy   2. Easy 3. Difficult   4. Very difficult
50.   How easy is access to external finance for investment?
       1. Very easy   2. Easy 3. Difficult   4. Very difficult

Infrastructure and Other Services
51.   Which public services does your business use?
       1. None
       2. Electricity only
       3. Water only
       4. Electricity and water
       5. Other (specify)
52.   What main problems have you had with these services?

1. None
2. Occasional interruptions
3. Frequent, longer, or serious interruptions
4. Too expensive
5. Other (specify)..

53.   What is your greatest infrastructural problem?
      ....

54.   Do you have your own generator? 1. No   2. Yes   3. N/A

Licensing

55.   Is this firm licensed by the Ministry of Trade and Industries?   1. No   2. Yes
56.   If licensed, how long did it take to obtain a manufacturing license?..........................
      Months
57.   What is your impression about the time it takes for licensing?
      1. Short 2. All right 3. Long 4. Too long
58.   Do you think obtaining a license is cumbersome?
      1. No 2. Yes
59.   If yes, what would you recommend to make it easier?

Taxes

60.   Do you pay taxes to national authorities?
      1. No 2. Yes
61.   What do you think of the level of business taxes?
      1. Low   2. All right   3. Too high
62.   Do you know of the tax conditions offered by other countries for private investment?
      1. No   2. Yes
63.   If yes, how do Ghana's tax conditions compare with those other countries?

Public Administration System

64.   What is your assessment of the customs and tax systems in Ghana?
      1. Very inefficient 2. Inefficient 3. Efficient
      4 Very efficient 5. Other (specify)
65.   Do you think Ghana has an efficient administrative machinery to monitor bribes
      at the ports and harbours?
      1. No 2. Yes   3. Don't know
66.   Do you think Ghana has an efficient administrative machinery to monitor tariff
      concessions? 1. No   2. Yes   3. Don't know
67.   What do you think about the way government policy is implemented vis a vis
      private investment?

68.   Do you think the legal framework for guiding private investment is clear?

      1. No   2. Yes   3. Don't know

69.   If no, which areas do you think need amendment?

....

70.   If you had money to invest in Ghana, which is better: productive sector investment
       or buying Treasury bills or Bank of Ghana bonds?
       1. Invest in productive sector
       2. Buy government financial paper
       3. Other (specify).....................................
71.   Give reasons for your answer

       ....

72.   If you had to choose between investing in the productive sector or the commercial
       sector, what would you do?
       1. Invest in productive sector
       2. Invest in commercial sector
       3. Other (specify).....................................
73.   Give reasons for your answer

       ....

Marketing Strategies
74.   Do you think Ghana is getting known as a good place for private investment?
       1. No 2. Yes   3. Don't know
75.   If no, what do you want to see introduced?
       1. Improving the performance of the economic bureaux of the embassies abroad
          to promote private investment
       2. Advertising in foreign journals (e.g. Newsweek, The Economist, Time
          magazine, etc.)
       3. Sponsorship of Ghanaian entrepreneurs at international trade fairs
       4. Other (specify).....................................

Investment Code
76.   Are you familiar with the investment codes of other countries?
       1. No   2. Yes
77.   Are you very conversant with Ghana's investment code?
       1. No   2. Yes
78.   Do you think that the code is clear?
       1. No   2. Yes   3. Don't know
79.   If no, which areas are unclear?
       ....
80.   Do you think the code offers good incentives for private investors?
       1. No 2. Yes 3. Don't know
81.   In terms of attracting private investors, how do you compare Ghana's code with
       others?
       1. Ghana's code far less attractive
       2. Ghana's code less attractive
       3. Ghana's code about the same as others
       4. Ghana's code offers better incentives

      5. Ghana's code offers far better incentives

      6. Other (specify).......................................

82.   Do you think that there are any inconsistencies between government attitude towards private investors and the investment code?

      1. No 2. Yes

83.   If yes, explain. ....

84.   If you were starting up your business today as a new investor, what sort of obstacles would arise, and how serious would they be? (rank as 0 = no problem, 1 = minor problem,

      2 = moderate problem, 3 = major problem)

      1. Getting registered

      2. Government attitude toward private investment

      3. Uncertainty about economy

      4. Political instability

      5. Getting credit

      6. Cost of credit

      7. Level of taxes

      8. Availability of electricity, water, and other public utilities

      9. Other (specify).......................................

85. What in your view are the three most important changes in the economy or in government policies that would achieve the following (rank as 1, 2, or 3 with 3 as the most important)

      (a) Encourage long-term investment instead of short-term trading?

      (b) Make it easier for existing companies to operate?

      (c) Encourage existing companies to expand?

      (d) Encourage more Ghanaians to invest?

      (e) Attract more foreign investors?

(D)   PRODUCTION, SALES, AND INVESTMENT

86.(a) Provide information on annual production

Year	Quantity	Value
1991		
1992		
1993		

86.(b) Provide information on annual production

Year	Quantity	Value
1991		
1992		
1993		

86.(c) Provide information on annual production

Year	Quantity	Value
1991		
1992		

1993

87. Provide information on domestic sales
    <u>Year   Value</u>
    1991
    1992
    1993
88. Provide information on exports
    <u>Year   Value</u>
    1991
    1992
    1993
89. Provide information on value of inventories at the end of:
    1991
    1992
    1993
90. Provide information on the total number of employees
    <u>Year   Paid Employees   Apprentices</u>
    1991
    1992
    1993
91. Provide information on total wage bill
    <u>Year   Wage Bill (Cedis)</u>
    1991
    1992
    1993
92. Provide information on cost of imported inputs
    <u>Year</u>
    1991 (a) including duty ....
          (b) excluding duty ....Duty ......
    1992 (a) including duty ....
          (b) excluding duty ....Duty........
    1993 (a) including duty ....
          (b) excluding duty ....Duty.......
93. Provide information on cost of inputs purchased on local market
    <u>Year   Cost</u>
    1991
    1992
    1993
94. Provide information on indirect costs (rents, utilities, etc.)
    <u>Year   Value (Cedis)</u>
    1991
    1992
    1993
95. Have you revalued your assets? 1. No 2. Yes

96.   Information on fixed assets:

      (i) Market value (price at which you can sell asset)

Type of Asset	1991	1992	1993
(a) Plant, Machinery & Equipment			
(b) Vehicles			
(c) Buildings			
(d) Others (specify)......................................			

      (ii) Replacement value (price of a new asset)

Type of asset	1991	1992	1993
(a) Plant, Machinery & Equipment			
(b) Vehicles			
(c) Buildings			
(d) Others (specify)......................................			

97.   Additions to fixed assets (investments) : How much did your firm invest in each of the following assets.

Type of asset	1991	1992	1993
(a) Plant, Machinery & Equipment			
(b) Vehicles			
(c) Buildings			
(d) Others (specify)......................................			
(e) Total Investment			

We appreciate the efforts you have put into completing this questionnaire.
    Thank you.

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