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**INVESTMENT IN EDUCATION
AND ECONOMIC GROWTH IN
THE GAMBIA 1975-2001:
A COINTEGRATION APPROACH**

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**Investment in Education and Economic Growth in
The Gambia 1975-2001: A Cointegration Approach**

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Chapter one

Introduction

1.1 Statement of the Problem

In the Gambia there have been some studies to investigate what proportion of Government expenditure goes to the social sectors (education, health and the environment). Recently several policies have emphasised the need to increase Government expenditure in education and health as a means of reducing poverty as well as enhancing long-term economic growth and human development. Despite these policy pronouncements, no research has been carried out to determine the impact of investment in education on economic growth and poverty reduction in The Gambia. Most of the policies, therefore, did not emanate from informed analytical/empirical research, but were rather based on anecdotal evidence. It is largely believed that there is a high correlation between education, economic growth and development. That this assertion is correct is indeed both an empirical question as well as a country-specific issue. This study is an attempt to fill such a lacuna/gap and to also promote informed decision-making.

As noted above, much less is known about how the composition of public expenditure affects a country's growth rate. For at least three reasons, this question is becoming increasingly important. Firstly, after a decade and a half of fiscal adjustment, during which many of the "white elephants" in government budgets were weeded out, developing countries like The Gambia are faced with hard choices when undertaking further fiscal restraint. Which component of public expenditure should be cut? Health? Education? Infrastructure? Defense? Before taking a decision, policy-makers need to know the relative contributions of these different components to the country's economic performance. Secondly, the World Bank periodically undertakes Public Expenditure Reviews of its client countries where, among other things, the mix of public expenditure is evaluated. A systematic analysis of how this mix affects economic growth would lend much-needed support to these evaluations. Thirdly, reviews of the experience with structural adjustment have shown that adjusting countries have followed a different composition of public expenditure from non-adjusting countries (see World Bank, 1992). What are the implications of this difference for the future performance of these countries? The first two questions are particularly relevant for The Gambia.

Neither economic theory, nor empirical evidence provides clear-cut answers to the question of how the composition of public expenditure affects economic growth. The theory develops a rationale for government provision of goods and services based on the failure of markets to efficiently and effectively provide public goods, internalize externalities and cover costs when there are significant economies of scale. Furthermore, when there is a failure in one market, government intervention in a related market can be justified. Sound as they are, these theoretical notions do not translate easily into operational rules about which component of public expenditure to be cut.

On the empirical front, few researchers have tried linking particular components of government expenditure to private-sector productivity and economic growth but most of these efforts lack a rigorous theoretical framework and are therefore removed from the underlying rationale for government's role in the economy (Diamond 1989). Others (Ahmed 1986), Barro (1981, 1987) have emphasised the distinction between transitory and permanent changes in the level of government purchases of goods and services for explaining movements in output among other macro variables.

1.2 Methodology

The study investigated the impact of investment in education on economic growth in The Gambia. This was done using the econometric views package version 3.1 developed in 1998. All the variables used in the economic growth model were tested for stationarity in order to eliminate the possibility of false correlation/spurious correlation.

The study benefited from a recent, as well as sophisticated econometric technique (the cointegration approach) to investigate the impact of investment in education on economic growth in The Gambia over the period 1975 to 2001. The dependent variable used is growth in income (GNP) and its determinants as follows: export volume, investment in education, inflation, total investment, real effective exchange rate and a dummy variable representing the structural adjustment programme.

1.3 Objectives of the Research

- i. The principal objective of this research is to investigate the impact of investment in education on economic growth.
- ii. To provide additional empirical foundation for better expenditure and education policies geared towards enhancing long-term economic growth and human development.

1.4 Working Hypothesis

Investment in education has a positive and significant impact on economic growth in The Gambia.

Chapter two

Country background

The Gambia is a small country in the Western region of Africa with an alarming population growth rate of 4.2% per annum (1993 Census) which shows that the population will double in or about 2009. In 1965, after independence from colonial domination, The Gambia maintained a sound and stable macroeconomic framework: modest economic growth, 4.7% growth in per capita incomes, 3.7% of annual inflation rate and a foreign debt of only US \$ 5 million. However, in the 1970s both economic and non-economic factors affected economic performance considerably. These factors can also be classified as internal and external. Paramount among these were the first and second oil price shocks, droughts, worsening terms of trade (classified as external factors) exacerbated the balance of payments (BOP) position of The Gambia. The internal factors included inappropriate government policies such as swelling of the civil service, government intervention in productive and distributive activities through the establishment of State-owned Enterprises (SOEs). As a result of this, high budget deficits became inevitable. These were financed by printing money (monetary accommodation), domestic and external borrowing with high inflation rates, crowding out of the private sector investment and heavy-indebtedness as inevitable concomitants. The budget deficit, which was only 3% of GDP during 1965-75, deteriorated sharply to 15% of GDP over the 1980-85 period. Deficit financing was frequent in addition to controls of prices and interest rates to an extent that real interest rates became negative and this made private investment to drop. This was reflected in the decline of private sector investment from 8.7% of GDP in 1975 to less than 3% of GDP in 1985. This largely contributed to a decline in economic activities and reduced growth in average per capita income to only 0.2% a year.

By 1985, it was becoming increasingly clear that The Gambia had run into serious economic difficulties to such an extent that reforms were inevitable. Between 1980 and 1985, real per capita income dropped from US \$ 320 to US \$ 227. The fiscal deficit in 1985 was 17% of GDP and the current account deficit of the balance of payments was 21% of GDP. External debt was about US \$ 245 million and gross international reserves were equivalent to only two weeks of import cover. Debt service arrears amounted to 64% of GDP and this eroded the creditworthiness of The Gambia in the eyes of international financial institutions particularly the IMF and the World Bank.

In reaction to these unfavourable macroeconomic indicators, a task force drawn from the ministries of Finance & Trade, Economic Planning, the Central Bank and National Investment Board was assembled in June 1985 to look into the situation and give policy recommendations. This task force recommended an adjustment programme, which was immediately adopted by the then government in August of the same year in order to arrest the situation.

2.1 The Economic Recovery Programme

Launched in August 1985, the economic recovery programme had two broad objectives:

- (a) to reverse the over-extension of government in the economic life of the country; and,
- (b) to create a favourable climate for private productive investment through elimination of exchange rate and price distortions.

The following policies were recommended for timely implementation in order to achieve the above broad objectives:

- (i) exchange rate liberalization
- (ii) financial sector reforms (interest rate liberalization)
- (iii) reduction of the public sector (and its deficit)
- (iv) removal of subsidies
- (v) deregulation: divestiture and privatization of State-owned Enterprises (SOEs)
- (vi) price decontrol

In principle, the government accepted that a realistic exchange rate was a strong pre-requisite in creating a conducive climate for the long-term growth of The Gambian economy. It thus introduced an inter-bank foreign exchange market on 20th January 1986, and adopted a managed floating exchange rate regime. Import licensing, exchange control and all restrictions on payments and transfers for current international transactions were abolished.

To further support the floating exchange rate regime, interest rate liberalization and prudent credit policies were subsequently put in place. Interest rate liberalization was also believed to be capable of leading to positive real interest rates, which in turn would help boost domestic savings mobilization in accordance with the Financial Liberalization Hypothesis. In particular, net credits from the Central Bank to the government and bank credits to the Gambia Produce Marketing Board (GPMB) were to be drastically reduced.¹

To encourage participants in the new exchange rate regime to hold local currency (Dalasi)-denominated assets, the government removed ceilings on deposit and lending rates; raised commercial bank reserve ratios substantially, related the minimum deposit rates to the market rate of interest, which was then determined by a bi-weekly treasury bills auction.

Steps were also taken to strengthen the Gambia Commercial and Development Bank through improved loan appraisal, credit supervision and improved accounting procedures. The Agricultural Development Bank was wound up, some public enterprises liquidated, and others subjected to Performance and Management Contracts. A moratorium on government guaranteed loans was put in place.

The government was determined more than ever before to reduce its budget deficits (excluding foreign grants) from 12.4% of GDP in 1984/85 to 6.4% in 1985/86. Even though total revenue and grants were estimated to increase by 17%

¹ The Gambia Produce Marketing Board was later divested

during 1985/86, total recurrent expenditure was estimated to increase by only 6% over the same period. About 2300 casual and lower grade workers were retrenched and increases in public sector salaries were frozen until 1989. In addition, following the report of a consultant that reviewed the whole civil service, a further 1200 employees were retrenched and more than 800 vacant posts suppressed, all in a bid to reduce the budget deficit.

An element of direct cost recovery was introduced in health, higher education and municipal services in order to mobilize government revenues to be able to strengthen and maintain these services. Major recommendations of the Tax Reform Committee established in 1984 were adopted in order to increase efficiency and equity of the tax system.

The government also revised its public investment programme by redesigning on-going projects in order to reflect new priorities and effect cost savings. As a result of this, some projects were modified and others regarded as white elephants postponed or cancelled altogether. In identification of new projects, it was decided that utmost priority be given to those that addressed rehabilitation and maintenance of public assets, export generation and import substitution. New projects were only adopted if the terms were concessionary i.e. with a high percentage of grant element, soft interest payments, long grace and maturity periods. During the 1990s and beyond, the government would neither contract nor guarantee any new non-concessional external loans (that is, loans not entailing a grant element of at least 35 percent). Similarly, the government would neither contract nor guarantee any external loans with maturities of less than one year, with the exception of normal import credits. In addition to this, any loan contracted or guaranteed by the government would be subjected to prior approval from the Department of State for Finance and Economic Affairs (DOSFEA); it would also ensure that the recommendations in the World Bank consultant's report on the debt-reporting system were implemented to the letter.

As noted above, the mass retrenchments conducted were in a bid to shift expenditures from salaries to supplies and materials. A social safety net was also put in place in the form of Job-and-Skills Retraining Programme in order to prepare retrenched workers to move to the private formal and informal sectors.

The poor performance of State-Owned Enterprises, most of which were loss-making, was also a severe strain on the whole financial system of the country. Most of these enterprises were indebted heavily to the Gambia Commercial and Development Bank (GCDP), which negatively impacted on the health of the banking sector. In order to arrest the situation, government adopted the following two strategies during the Economic Recovery Programme (ERP): (1) rationalization of public sector activities and a moratorium on the creation of new public enterprises, and (2) systematic efforts to improve the sector's performance through use of Performance Contracts, technical assistance, and settlement of interlocking arrears. The National Investment Board's capacity to monitor these enterprises was strengthened through legislation. However the National Investment Board was dissolved and subsequently replaced by the National Investment Power Authority (NIPA) in 1994.

The total external debt of The Gambia, as noted above, amounted to SDR 208 million in 1985 or approximately 206% of GDP. The servicing of the debt and the

attempt to eliminate arrears became a major drain on the limited resources of the nation. An external debt management policy was adopted in a bid to improve the debt maturity profile, secure official development assistance in the form of grants and highly concessionary loans and also to curtail non-concessionary borrowing. A package consisting of debt relief, rescheduling and bridge financing was successfully negotiated. The programme ended in 1989 and was to be replaced by the Programme for Sustained Development to consolidate the gains already made and avoid obstacles/pitfalls.

2.2 The Programme for Sustained Development

In 1989, a sister programme, the Programme for Sustained Development replaced the Economic Recovery Programme in order to consolidate the gains already made and at the same time address policy mistakes, shortcomings and the negative impact of the Economic Recovery Programme especially on the most vulnerable. In principle, the Programme for Sustained Development was established to increase supply response and also incorporate to a large extent the social dimensions of the Economic Recovery Programme and thus a departure from the orthodox form of the adjustment programmes as recommended by the Bretton Woods Institutions. In other words the government wanted to go beyond the quantitative macroeconomic aggregates and indicators to see what was actually happening at the grassroots level and also to foster grassroots participation. From this perspective, the Programme for Sustained Development can be said to have been a step further in the bottom-up approach to development planning and included attributes that better qualifies it to be termed, a Structural Adjustment Programme. However, there are striking similarities with the ERP as would be shown below and in that regard much still remained to be desired as far as the human dimension was concerned.

2.3 Recent Macroeconomic Developments

Real GDP growth slightly declined from 5.4 percent in 2000 to 4.9 percent in 2001. This high economic growth performance was largely explained by the remarkable performance of the agricultural sector (especially groundnuts in 2001) as a result of the relatively sufficient rainfall recorded as well as its even distribution. Similarly, the fisheries sub-sector, construction, trade, and transport and communication sectors experienced rapid expansion during the period. Despite this good harvest and increased output in the sectors mentioned, expansionary fiscal and monetary policies, and the marked depreciation of the Dalasi continued to exert inflationary pressures, and consequently end of period inflation as at end-2001 was 8 percent as against the IMF programme target of 3.5 percent.

The external current account deficit (excluding official transfers) increased to 14.75 percent in 2001 as a result of unprogrammed/ extra-budgetary² expenditures and higher imports for domestic consumption. Gross official reserves, which were estimated to cover 5 months of imports as at end-2001, also underperformed the programme target, largely due to the delay in the disbursement of donor grants of 1.6 percent of GDP. This was also an explanatory factor in the observed 8 percent

² A concessional loan from a donor and supplier's credit for the purchase of three electricity generators

depreciation in real effective terms of the Dalasi in 2001. This depreciation of the domestic currency continued through 2002 and beyond, fuelling inflation.

On the fiscal front, there were also slippages in the implementation of the 2001 budget, with an overall budget deficit of 8.7 percent of GDP, which also exceeded the IMF revised target of 5.9 percent of GDP. This was mainly accounted for by shortfalls in customs duty collections vis-à-vis increasing recurrent expenditure during the period.

There was also evidence of domestic credit expansion, with predominance of government borrowing, which crowded out the private sector. This unfavourable outcome partly resulted from government payments to commercial banks (D 64 million or 1.1 percent of GDP) for non-performing crop finance loans extended to private operators in 1999/2000, following the seizure of the Alimenta assets. Broad money growth, however, declined from 35 percent in 2000, to 19 percent in 2001, due to the open-market operations (eg. sale of treasury bills) pursued by the Central Bank to mop up excess liquidity.

Chapter three

Evolution of education policies

The system of education inherited by The Gambia at independence was predominantly aimed at the acquisition of basic skills in reading and numeracy, with a smattering of secondary education. Notwithstanding the widely held belief that the country was not viable given its size and resource base, the authorities perceived education as an essential key for national development and thus accorded it high priority. Indeed, this perception is in line with empirical evidence that education is a vital factor in economic growth and social development.

3.1 Pre-Independence Era

The education system during this period was predominantly run by missionaries; and provided three and seven years of infant and elementary school courses respectively. Successful students at the Standard Seven School Leaving Certificate Examination proceeded to high school to pursue a three-year course leading to the Cambridge School Certificate. The last colonial policy, the Education Policy 1961 – 1965, brought in new reforms introducing a six-year primary school course and an entry age of six years, which was hitherto left at the discretion of parents. Secondary education was provided at the Junior Secondary and Senior Secondary or High Schools. By this time, there were only four senior secondary schools with only one, Gambia High School, offering a Sixth Form. At post secondary, there was a Vocational Training Centre in Banjul and a Teacher Training College initially located in Georgetown, but later transferred to Yundum, was the only institution of higher learning in the country. Owing to the manpower gap in the labour market largely due to the differences in perception of the role of education on the part of legislators (government), the providers (missionaries) and employers (the private sector), there was dissatisfaction with the system. Government accordingly took responsibility to set up an independent Education Department to reform the education system.

3.2 Between 1965–1976

As a matter of priority, the education system had to be transformed from controlled provision for an elitist few to education for the masses with the inevitable upsurge in enrolment. The 1961 -65 Education Policy introduced a six year primary course aimed at making education available to all children in The Gambian with particular attention on girls' education. The period immediately after independence witnessed major reforms in education. The Sleight Report – The Development Programme in Education for The Gambia, 1965-75 (Sessional Paper No 8 of 1966) – formed the policy framework and aimed at radical increases in enrolments aimed at attaining universal primary education in Banjul by 1970.

3.4 The 1976-86 Policy

Reforms in this policy included the raising of the entry age from six to eight years and the inclusion of literacy in the local languages (Mandinka, Fula and Wollof) and environmental studies into primary curriculum; the primary school curriculum was developed to become more agricultural/vocational oriented; there was a shift of the burden of private expenditure in education to government with a view to having a system of free but non-compulsory primary education by September 1977 with the ultimate aim of introducing free compulsory primary education as soon as sufficient accommodation and staffing were available; class size was increased from 29.3 to 40; religious and moral instruction were introduced in schools; and government took full responsibility for teachers of Arabic/Islamic studies in all schools.

Post secondary education was provided only at Yundum College (renamed The Gambia College) later on expanding courses to include public health, midwifery and nursing, and agriculture. Although The Gambia Technical Training Institute was an integral part of the college, it had its own management board and offered courses in automobile engineering, industrial arts, building construction and maintenance, and business studies. The policy also had proposals for the college to offer Advanced Level courses (GCE "A" Level), and other courses leading to the award of external degree and certificates in Arts, Education and Science.

On the financing of education, the policy specified that this remained government's responsibility. Fees were paid and received by government. High schools were financed through a grant-in-aid subvention to cover salaries of teaching staff while fees collected by schools went to paying wages of non-teaching staff and purchase of supplies. At the College, government responsibility was restricted to payment of salaries to teaching staff and capital expenditures while other expenses were borne by tuition and boarding fees charged to students. However, government granted generous scholarships to students.

3.5 The 1988-2003 Policy

The fundamental objectives of this policy were to increase access, improve quality and relevance of education. School entry age was lowered from 8 to 7 years and grading of classes was changed to meet the objectives of 9 years of uninterrupted basic education, while secondary technical and high schools were renamed as middle and senior secondary schools respectively. Thus the general structure of education became 6-3-3-2 (six years of primary education, three years of lower secondary/middle school, three years of upper secondary/senior secondary and two years of sixth form). Post secondary teacher training at The Gambia College was reduced from three to two years to meet the qualified teacher requirements of the restructured system.

The thrust of reforms were to increase access; transition rates from primary to middle schools were to increase from 30% in 1987 to 60% by 2003, with a primary gross enrolment ratio target of 75% by the end of the policy period. Transition from the primary level to the middle school was, however, still determined by a screening process at grade 6, the Primary School Leaving Certificate Examination. The policy also targeted the training of all unqualified teachers by 2003 and expenditures on

teaching learning materials to be significantly increased to improve quality of education. The curriculum was to be revised and the teaching of local languages further strengthened.

At the tertiary level, the Gambia continued to lack a university and hence, as a long term objective, the policy stated that “...*government willin the later stages of the policy period 1988-2003 and beyond, seriously examine and pursue the possibility of establishing the nucleus of a university at Gambia College*” (The Gambia 1988, p43). Although the policy acknowledged the significance of vocational education and training in human resource development, no specific reforms were made in this regard but the need for expansion of technical and vocational training opportunities was expressed.

The Education Sector vis-à-vis other sectors (e.g. PER in Agric & Health)

The focus of policy reforms in recent years has been to restore macro-economic stability, and to implement broad-based structural reforms in support of the Country Assistance Strategy whose objective is enshrined in the Poverty Reduction Strategy Paper. The international community, through the World Bank and the IMF, had posited that poverty reduction should be at the heart of development efforts of developing countries and is committed to supporting in these endeavors with technical and financial resources. On their part, developing countries, including The Gambia, would conduct informed research/studies on their social sectors, and in particular education, health and agriculture, to determine the adequacy and efficiency of resource allocation and utilization. Hence the conduct of Public Expenditure Reviews for these sectors and a Poverty Reduction Strategy Paper at the national level became a necessity if not a condition. The World Bank accordingly launched a series of training programmes aimed at encouraging a stronger poverty focus in education program/project development, sector work and policy dialogue.

In The Gambia, the education, health and agriculture sectors were identified to develop sectoral Public Expenditure Reviews, whilst the Strategy for Poverty Alleviation Coordination Office (SPACO), under the Department of State for Finance and Economic Affairs, was charged with the task of coordinating the social sectors to develop a Poverty Reduction Strategy Paper. The main thrust of the Public Expenditure Reviews was to assess the extent to which public expenditures in these sectors were efficient and in consonance with policy statements. Questions or issues covered in the education sector included:

- How efficient and effective was resource allocation?
- Are educational charges affordable to the majority?
- Who bears the cost burden of educational charges at various levels?
- Adequacy of physical, human and financial resources to meet targets?

For the sectoral inputs into the PRSP, issues included the following:

- Does the PRSP give attention to education?
- Does it highlight the links between poverty, growth and education (education status being both a determinant and dimension of poverty)?
- Does it make a case for investment in education effective enough (drawing from macroeconomic evidence and other research)?

3.7 Investment in Education and the MDGs (magnitude & sustainability of the investment)

The Millennium Development Goals (MDGs) are an international commitment to development to improve outcomes particularly in the social sectors. Three goals relevant to education and their targets are stated in the box below.

Box 1: The Millennium Development Goals on Education:

Goal 2. Achieve universal primary education

Target 3. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

Goal 3. Promote gender equality and empower women

Target 4. Eliminate gender disparity in primary and secondary education, preferably by 2005, and at all levels of education no later than 2015.

Source: "Working Together towards the MDGs" Wagstaff, A. (2002)

The MDGs posed a challenge to partners to assist countries in reaching these lofty goals, and also commit them to ensuring that financing commensurate with the challenge would be forthcoming. To achieve these goals, economic growth is necessary, but not sufficient. With a projected annual average GDP per capita growth rate of 1.2% from 2000 – 2015 (Global Economic Prospects, World Bank 2003), only 56% of the targeted 100% primary completion rate can be achieved in Sub-Saharan Africa. The incremental recurrent cost estimates for achieving the target in primary education is between \$8 - \$10 billion annually in selected low income countries.

The highly acclaimed Third Education Sector Program (EDU III) had a comprehensive Investment Program supported by major development partners, there was a funding gap of 25.6%. Achieving Target 3 of the MDGs requires investment in classroom construction, training of teachers and the provision of teaching learning materials among others. Notwithstanding, the EDU III recorded a funding gap of 29.6% in the basic education component of the program, the main component for the attainment of the MDG targets on education.

Investment in education yields dividends over time. Certain expenditures in education have recurrent cost implications, e.g. teacher training. The upsurge in enrolment resulting from the policy drive for Education For All requires huge investment outlays in both physical and human resources. The table below shows the projections from the simulation model of the PER (1998) for GER and the associated implication on classroom and teacher requirements.

Table 1: PER projections (GER, Classrooms & Teachers) & actual attainments in 2001

Indicators	1996 (base Year)	2001		2005
	Actual	Projections	Actual	Projections
GER	78%	82%	90% ³	100%
Classroom	2877	4499	3274	5545
Teachers	4280	4119	4073	5154
- of which % Unqualified	42%	25%	43%	20%

Source: Public Expenditure Review 2001, and Annual Education Statistics 2001, DOSE

It is to be observed that the system had performed beyond its projected target in terms of access /enrolments (a GER of 90% against a target of 82%). One may be tempted to conclude further that the target of 100% for 2005 is attainable. One should, however, be cautious of the implications of reaching the last 10% of the children. Currently the Department of State for Education's 'Guidelines for School Mapping' indicates a 3km distance between schools. While it may be necessary to further reduce this distance to meet the out-of-school children, religion is still a strong factor in some rural communities where the local 'Dara' attracts a significant number of school-aged children. The bulk of resources used for classroom construction are from loan receipts, which requires a local counterpart fund (Government Local Funds) of 10% for the cost of every classroom. A credit facility can allocate so much funding for classroom construction, but access to these funds are contingent on the availability of counterpart local funds. This has been and may continue to pose problems. It is not sustainable under the current trend of economic growth and with reference to the competing demands within the education sector and in other social sectors. It is to be observed that by 2001, 27% of the classrooms had not been constructed whereas the enrolment targets had been exceeded, thus implying either over-crowded classes or schools without adequate classrooms and facilities. The EFA Fast Track Initiative⁴ proposes a special incentive package for parents and Marabouts to capture these out-of-school children, some of whom attend local Islamic schools (Daras). The sustenance of this package, including its management, is indeed a challenge. In terms of quality of teachers, it was anticipated that the proportion of Unqualified teachers would be reduced over the projected period, while the stock of teachers would be more efficiently utilized. However, the proportion of Unqualified teachers has increased against a fewer stock of teachers than was projected. The targets for 2005 are not attainable given that between 1996 and 2001, the targeted stock of teachers has not been met while the proportion of Unqualified has been on the rise. The challenges include the possibility of attracting the requisite personnel for recruitment or enrolment for teacher training at college.

Table 2: GDP Growth rate 1998 to 2003

	1998	1999	2000	2001	2002	2003 Est.	Average growth
GDP at factor cost (Real GDP)	565.16	603.88	634.48	665.91	637.76	681.19	
GDP growth rate		6.9%	5.1%	5.0%	-4.2%	6.8%	3.9%

Source: Central Bank of The Gambia

³ Including enrolment in the Madrassas

⁴ The Gambia EFA Fast Track Initiative proposal 2003

Investment in education and its sustainability largely depend on the prevailing economic circumstances. The risk factors associated with the economy range from the economic performance (growth rate) to the demographic factor (population growth rate). Economic growth has been targeted at an annual rate of 6% over the period to 2005. For the priority sectors including Education, the proposed resource envelop from the PRSP were predicated on a base case scenario of 6% annual increment to the 2001 sectoral budget and a high case scenario of 8% increment; the former based on a realistic budget constraint that allows for a normal increment on the previous year's allocation, while the latter is based on the desirable policy outcomes. Given the trend of growth, the economy cannot sustain the anticipated investment in education.

Both the First and Second Republican Constitutions of The Gambia provide for free primary education. The 1976-1988 Policy sought to shift the burden of private expenditure to Government with a view to having a free but non-compulsory primary education by September 1977 and an ultimate aim of eventually introducing free compulsory primary education as soon as 'sufficient accommodation and staff are available'.

Twenty-six years (from September 1977) on, the system can only boast of tuition free education and a textbook recycling scheme that is plagued with inefficiency and inadequacies. The system has had a persistent problem of undertaking policy decisions without adequately assessing its affordability and feasibility. The Secondary Technical Schools in the 1976-88 Policy failed largely due to inadequate material and human resources and instead of addressing this in the subsequent policy, the nomenclature was changed to Junior Secondary and now to Middle school. Meanwhile, employers and the labour market continues to crave for skills not adequately taught or provided by the system.

3.8 Enrolment Rates (Primary, Secondary and Tertiary)

There has been a steady increase in enrolments over the years. The number of schools have steadily increased from 82, 8 and 7 Lower Basic, Upper Basic and Senior secondary schools respectively in 1976/77 to 313, 41 and 18 respectively twenty years later in 1996/97. The gender gap in enrolment has narrowed significantly at all levels albeit a much slower rate at the senior secondary level. Between 1976/77 and 2001/02 enrolments increased at an average growth rate of 6.3%, 9.6% and 8.2% for the lower basic, upper basic and senior secondary levels respectively. It is important to note, however, that the education system remains pyramidal in nature with the majority of the school aged population at the upper basic and senior secondary levels being out of school; 53% and over 75% respectively. Even though the MDGs stress the attainment of basic education, a 66% GER for the basic education cycle (2001/02) leaves much to be desired for effective impact on economic growth.

Table 3: No of Schools, Enrolment & Repetition by level

		1976/77	1983/84	1996/97	2001/02
Lower Basic	No. of Schs	82	180	313	371
	Enrolment	25,513	60,630	133,409	195,373
	Male Enr	63.9%	62.5%	56.0%	52.0%
	Female Enr	36.1%	37.5%	44%	48%
	Repetition		12.80%	14%	9%
Upper Basic	No. of Schs	8	16	41	114
	Enrolment	4,635	8,923	24,442	45,973
	Male Enr		69.3%	60.0%	58.0%
	Female Enr		30.70%	40%	42%
	Repetition		2%	1%	3%
Senior Sec	No. of Schs	7	8	18	37
	Enrolment	2,199	4,037	11,347	17,181
	Male Enr	66.8%	70.4%	67.0%	66.0%
	Female Enr	33.2%	29.6%	33%	34
	Repetition	3.9%	4.3%	13%	2%

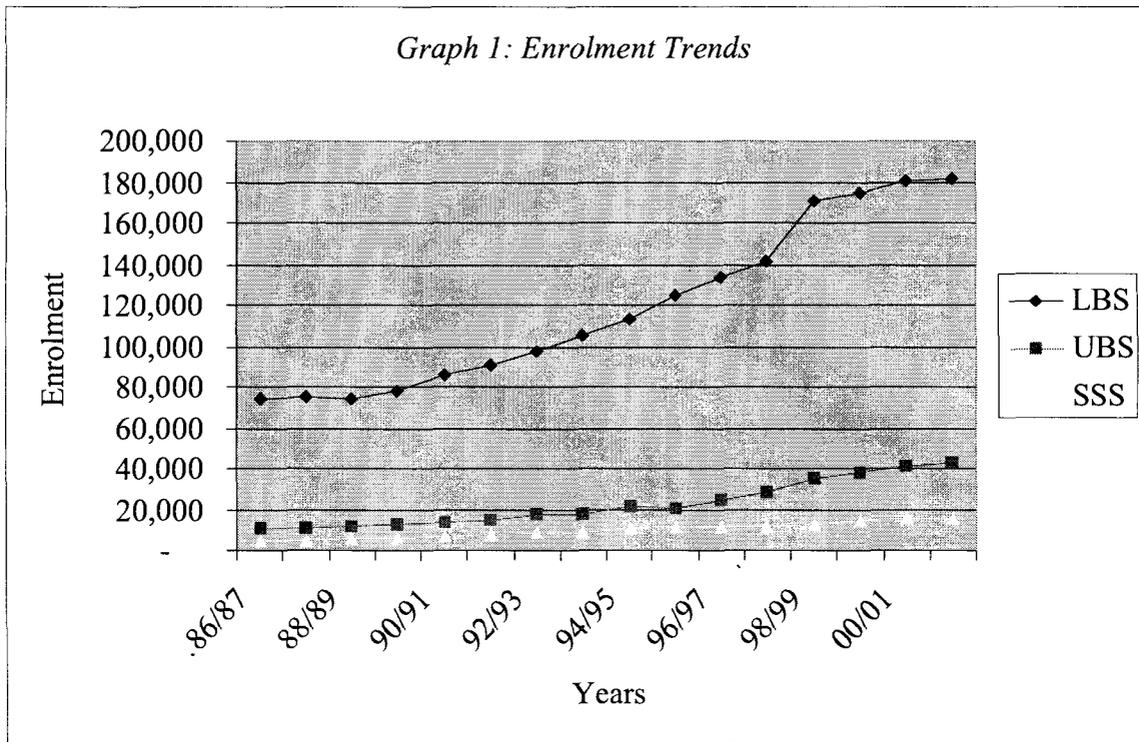
Source: Annual Education Statistics, DOSE

Table 4: Enrolment Trends in Lower, Upper & Senior Sec. Schools 1986/8-2001/02

	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94
LBS	73,856	75,401	74,070	77,787	86,173	90,613	97,262	105,471
UBS	11,073	11,127	11,891	12,982	13,966	14,466	17,174	17,899
SSS	4,905	5,009	5,419	5,528	6,434	7,320	8,755	9,221
	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02
LBS	113,419	124,513	133,409	141,569	170,371	174,232	180,465	181,176
UBS	21,050	20,690	24,442	28,198	34,688	38,113	41,370	42,452
SSS	10,517	11,407	11,347	11,375	12,670	15,092	15,400	15,571

Source: Annual Education Statistics, DOSE

Data on enrolment at the post-secondary institutions have been scanty. Total enrolment for the Vocational Training Centres and Gambia College was 1229 and 170 respectively in 1983/84, of which 425 were females. In 2000/01, enrolments were 1075, 220 and 1158 for the Gambia Technical Training Institute, the University of The Gambia and Gambia College respectively (Public Expenditure Review, DOSE 2001).



Source: Annual Education Statistics, DOSE

Table 5: GER at Lower and Upper Basic from 1991/92 to 2001/02

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Lower Basic	59%	61%	63%	65%	68%	70%	72%	73%	72%	74%	75%
Female	48%	50%	53%	55%	59%	61%	64%	67%	67%	71%	73%
Male	71%	72%	74%	75%	78%	80%	80%	80%	78%	77%	77%
Upper Basic	22%	25%	25%	29%	27%	31%	34%	40%	42%	43%	47%
Female	27%	19%	19%	21%	21%	26%	26%	32%	34%	37%	40%
Male	17%	32%	32%	36%	33%	36%	42%	48%	51%	49%	54%

Chapter four

Literature review

The impact of education on economic growth and development has been a contentious issue and has attracted a lot of interest among development economics researchers. Education may be regarded as an investment in a productive agent. A lot of questions have been raised whether there is any close correlation between the aggregate amount of education, measured by the investment cost or the number of student-years embodied in the labour force, and growth in output (production). In studying the productive effects of education it would be more appropriate to use a disaggregated approach. In this regard, it would be necessary to distinguish between the systems of education, methods of education, curricula and the levels. There are also inventions and innovations in the field of education, which may increase the efficiency of the investment in education, including the costs of spending more years in the classroom.

The economics of education has emerged over the years as a science in its own right, corresponding to the study of other types of production. Robinson (1962) noted that it was still in an early experimental stage. The study noted that there were problems of measurement, unresolved and therefore knowledge about the production function was rudimentary. The study concluded that it was premature to try to integrate the 'education industry' into aggregate economic growth models, even if it was evident how in principle this could be done.

The difficulty of making an adequate investment decision on education is immensely increased by the fact that education is a long-term investment, which affects production several decades ahead. In one important respect, the human character of educational capital as distinct from that of real capital creates a special problem of analysis and policy. By educating students, we may create people better able to invent and innovate in the field of technology, political life, organisation and culture. This will affect the trend of technology in a way that is unique, when compared with investment in other factors. In econometric studies, various shares of overall growth have been imputed to the volume of capital and labour, leaving an unexplained technological trend as a residual factor. In some studies, the rise in the average level of education of labour has been added as another factor that explains a (relatively small) share of overall growth. This analysis, however, overlooks the fact that technological trends may largely be explained by qualities in the population that are related to education. This effect will not be brought out by a correlation analysis based on broad aggregates; it is closely linked to comparatively small groups within the population engaged in the pursuit of research, invention and innovation. Even if the results within this field are largely of a stochastic nature—the view of a great son of Vienna, Joseph Schumpeter—their systematic relation to education in society of today cannot be overlooked.

There are good reasons to stick to the traditional patterns of economic thinking and regard education as another factor in economic growth. Policy should be balanced as regards allocation of resources between investment in education and real capital. They can to some extent be substituted for each other and thus compete for available

resources. We must also take into account that they are to some degree complementary from a production point of view. Increased education will increase the marginal productivity of real capital, vice versa. The bottleneck position of some types of education, especially of higher education, and its far-reaching effects on the social and technical transformation of society, give it, however, a special place in analysis, policy and planning directed towards growth.

Some econometricians have attempted to measure national expenditures on education and research in the United States and try to see how such expenditures, combined with capital formation, are correlated with economic growth. Robinson (1962) cautioned that while this may be true for a nation like the United States, which is in the van and is therefore required to make progress by her own research, this cannot be true of a backward nation that can draw on the world's existing stock of knowledge and in some degree on the world's stock of trained technologists.

The critical role of education in the development process has been recognised long ago. To Plato, "education is indispensable to the economic health of a good society, for education makes citizens 'reasonable men'" (Tilak 1990, P.10). To Alfred Marshall, "the most valuable of all capital is that invested in human beings" (ibid p.10). Education transforms the raw human beings into productive human capital by inculcating the skills required by both the traditional and modern sectors of the economy, and makes the individuals more productive not only in the market place but also in the household (ibid p11).

Belief in the crucial nature of human resources was the cornerstone of the human capital theory and formed the basis for justifying huge public expenditure in education in developing and industrialised countries alike. With a rapidly evolving world of technology, education became increasingly essential in ensuring an adaptable and flexible population to these changes in order to enhance both productivity and individual earnings. Thus the thrust of the human capital theory lies in the hypothesis that education increases productivity of the labour force leading to an increase in economic growth (ibid p11).

Various studies were conducted to estimate the contribution of education (the human factor) to economic growth. Among these (Solow 1957) had associated the unexplained proportion of economic growth, the residual, to technical progress but later studies (Griliches, 1964, 1970) attributed it to human capital and concluded that education was an important input in the production function.

Denison (1974) found that 21 per cent of the growth during 1948-1978 was due to increased levels of education of the labour force. Kendrick (1977, 1981) and Jorgenson (1984) also estimated that education accounted for 15-25 per cent of growth in gross national product (GNP) in the United States of America during the period 1948-1976.

Psacharopoulos (1973) shows that the contribution of education declines by increasing levels of per capita income. It is therefore apparent that a substantial proportion of growth in output is attributed to the increased education of the labour force.

Several other studies, including Psacharopoulos (1985) dealt with the rate of return to education, showed evidence supporting the view that education is a productive investment. Psacharopoulos (1985) found that investment in human capital in general, and education in particular may be more conducive to economic growth than investment in physical capital; and that rates of return are highest in primary education, followed by secondary and then university education (Tilak 1990, p21).

There is overwhelming evidence in support of education's contribution to economic growth and development. Focussing on the productive capacity of human manpower in the process of development, what was aptly described as the 'human capital theory'. The theory postulates, "the most efficient path to the national development of any society lies in the improvement of its population, that is, its human capital" (Fagerlind 1989, p 18).

Education, according to Schultz, is not to be viewed simply as a form of consumption but rather as a productive investment. He further argued that education does not only improve the individual choices available to men, but an educated population provides the type of labour force necessary for industrial development and economic growth (Schultz, 1961, p18).

In most developing countries, education is considered a priority to reduce poverty, and several studies have emphasised its importance. Barro (1991), Chu and others (1995), and Tanzi and Chu (1998) argue that public expenditure allocations for education can improve economic growth while promoting equity. Gupta and Verhoeven (2001) and Gupta, Verhoeven, and Tiongson (1999) suggest that both the size and efficiency of public education expenditures are important in improving socio-economic performance.

According to Hong-Sang Jung et al (2001), promoting the education sector normally entails increasing public expenditure on education. A macroeconomic policymaker would question the economic consequences: how much would the supply of different educational skill groups and corresponding wage levels change, and what would be the impact on economic growth, macroeconomic stability, and poverty alleviation? In order to answer these and other questions, Hong-Sang Jung et al (2001), specified a Computable General Equilibrium (CGE) Model for Tanzania and Zambia. The model specifies the mechanism through which public expenditure on education affects the production of human capital. In particular, education expenditure was viewed as providing additional human capital to those who are in the educational pipeline. As these individuals come out of the pipeline, the argument went on, they contribute to the stock of human capital of their households in the form of improved labour skills. In this context, they concluded, the pattern of education expenditure influences the distribution of this additional stock among different socio-economic household groups. Simulation results of different education expenditure policies were presented in order to gain some insights into these and other issues.

Chapter five:

Theoretical considerations and empirical analyses

5.1 Theoretical Considerations

The impact of human capital accumulation on economic growth is investigated in this study by using an extended version of the neoclassical growth model proposed by Mankiw, Romer and Weil (1992) and applied by Ghura and Hadjimichael (1996) to sub-Saharan Africa. (Evangelos et al, 1999). The growth equation was estimated thus:

$$\begin{aligned} YGPC_{i,t} = & \alpha_0 \ln(Y_0) + \alpha_1 \ln(PG_{i,t} + g + \delta) + \alpha_2 \ln(PIR_{i,t}) + \alpha_3 \ln(GIR_{i,t}) + \\ & \alpha_4 \ln(HK_{i,t}) + \beta_1 SAP_{i,t} + \beta_2 INFL_{i,t} + \beta_3 INFLSD_{i,t} + \beta_4 BD_{i,t} \\ & + \beta_5 REER_{i,t} + \beta_6 Xg_{i,t} + \beta_7 TOT_{i,t} + \beta_8 FREE_{i,t} + \beta_9 WAR_{i,t} + u_i + v_i + e_{i,t} \end{aligned}$$

where

YGCP	=	Per Capita real GDP growth rate
Y_0	=	Measure of initial income
PG	=	Population growth rate
PIR	=	Private sector investment rate
GIR	=	Government investment rate
HK	=	Indicator of human capital development
SAP	=	Dummy variable for adjusting countries (sustained structural adjustment programmes)
INFL	=	Rate of inflation
$INFL_{SD}$	=	Standard deviation of inflation
BD	=	Ratio of fiscal deficit to GDP (excluding grants)
REER	=	Percentage change in the real effective exchange rate
Xg	=	Growth of export volume
TOT	=	Percentage change in the external terms of trade
FREE	=	Index of political rights and civil liberties
WAR	=	Dummy variable that indicates the existence of wars
u_i, v_i, e_{it}	=	Country-specific, time-specific and overall error terms respectively
$g + \delta$	=	It is assumed that the sum of the rates of technological progress (g) and depreciation (δ) is equal to 0.05

Three main motivations underlie the specification of the above growth equation. First, following Barro's (1990) growth model, the possibility of the differential impacts of private and government investments on economic growth is considered in the model. Second, another strand of growth models stresses that human capital accumulation, by enhancing labour productivity, can boost growth in the steady state (Evangeos et al 1999). Finally, as an important objective of their study was to investigate how the economic policy environment influenced growth, a number of policy-related variables were used in the equation and the main theoretical rationales behind the use of these explanatory variables are summarised in the rest of this section.

Since macroeconomic policies affect growth performance through their impact on the rate of inflation, the standard deviation of inflation, the fiscal deficit, and the percentage change in real effective exchange rate, these variables were used in the growth equation to capture the effects of such policies. The effect of inflation (INFL) on growth is widely recognized to be harmful when inflation rates are high; at low (single-digit levels), the likelihood of such a trade-off between inflation and growth is minimal. In Stockman's (1981) cash-in-advance model, anticipated inflation raises the cost of acquiring capital and thus lowers capital accumulation, adversely affecting growth. Finally, as inflation variability tends to be associated with higher rates of inflation, the standard deviation of inflation ($INFL_{SD}$) was also included because highly variable inflation makes it difficult and costly for economic agents to extract the correct signals from relative prices and very likely may lead to inefficient allocation of resources.

As growth performance is affected by the ratio of the fiscal deficit (excluding grants) to GDP (BD) and the ratio of Government investment to GDP (GIR) these two variables were used in the model to capture the impact of fiscal policy. Other things being equal within the constrained availability of domestic financial savings and foreign grants & loans, a larger budget deficit will mean that a lower share of the total financial resources would be available for the private sector. Moreover, if the fiscal deficit widens to an unsustainable level, private investors' perception of country risk would become increasingly negative and this would have a negative impact on private investment. In the context of financial programmes, therefore, the size of the fiscal deficit has generally been considered as a policy variable that is useful in making judgements about the sustainability of the deficit and the share of total financial resources needed to finance the activities of the private sector. As regards government investment (GIR), it has been used in empirical studies because it is used as a direct proxy of the government's contribution to capital accumulation, as well as an indicator of its efforts to develop basic economic and social infrastructure. Although government investment includes expenditure on education and health services that contribute to human capital development, the effect of the latter is also captured by using a combined index (HK) of life expectancy at birth and the infant mortality rate. This combined index proxies for general health conditions and, to some extent, for the quality of human capital as well.

The effect of changes in the real effective exchange rate (REER) on growth is ambiguous. On the one hand, a depreciation of the real exchange rate has a positive effect on growth by increasing capacity utilisation and raising the profitability of the tradable goods sector; the latter also promotes growth by stimulating private investment in tradable goods. On the other hand, a depreciation of the real exchange rate raises the cost of imported capital goods and, since a large component of capital goods are imported in developing countries, such depreciation tends to dampen private investment, thus lowering growth. Meanwhile, the effect of export-oriented trade policies, notably the liberalisation of foreign trade and exchange systems, on growth is captured indirectly by export volume growth (Xg). These policies are conducive to faster growth because they promote competition, encourage learning-by-doing, improve access to trade opportunities, raise the efficiency of resource allocation, and enhance positive externalities resulting from access to improved technology (Evangelos et al 1999).

Another key variable in the model was SAP, which was used to capture the impact of sustained adjustment under IMF-supported programmes. In varying degrees, countries that have implemented structural adjustment programmes on a sustained basis have carried out both sound macroeconomic policies and structural reforms. The latter have included (i) public enterprise restructuring and privatisation; (ii) retail and producer price decontrols ;(iii) exchange and trade liberalisation; (iv) financial sector reform; (v) civil service reforms; and (vi) legal reforms. Since the regression analysis controls for the effect of macroeconomic policies, SAP is most likely capturing the effect of structural policies aimed at improving the efficiency of economic resources, including measures to reduce the wedges between prices and marginal costs that typically arise from price controls, imperfect controls, subsidies and tax exemptions, distortive taxes, and exchange and trade restrictions (Khan 1987).

Finally, two variables relating to the institutional and political environment were included in the growth equation to capture the impact of political rights and civil liberties (FREE) and wars (WAR). It was hypothesized that the absence of political rights and civil liberties lowers the security of life and property and, as a consequence, reduces the rate of accumulation and the efficiency of factors of production. In a sample of countries considered by (Evangelos et al 1999) for instance, Burundi, Mozambique and Rwanda have been afflicted by wars and conflicts, with adverse consequences for growth.

This model will be adapted and replicated in the study.

5.2 Empirical Analyses

The growth model in this study was estimated as below:

$G = f(X, REER, I_Edu, SAP, IRATE,)$ where,
 G = GDP growth Rate
 REER = Real Effective Exchange Rate
 I_Edu = Investment in Education
 SAP = The Structural Adjustment Programme (Dummy)
 IRATE= Total Investment Rate
 X = Export Volume

The shift in Government Policy dummy (SAP) and the rate of inflation were not significant and therefore had to be dropped from the equation. The above relationship was specified with the theoretically expected signs stated underneath the variables as follows:

$$G = \alpha_0 + \alpha_1 \text{Log}X + \alpha_2 \text{Log}(REER) + \alpha_3 \text{Log}(I_Edu) + \alpha_4 \text{log}(IRATE) + \alpha_5 SAP + \alpha_6 u_t$$

(+) (-) (+) (+) (+) (+/-)

All the terms are as described above and note in addition that

α_0 = Autonomous Term
 U_t = Error Term

5.2.1 Stationarity Tests

The first step in any Cointegration analysis is to subject all the variables to stationarity tests to detect the presence of unit roots. This was done in the study using the Augmented Dickey Fuller (ADF) tests. If the ADF statistics is higher than the Mackinnon critical values in absolute terms, after a first difference, then the series in question is said to be integrated of order one. If the ADF statistic is higher than the Mackinnon critical values after a second difference, then the series is said to be integrated of order two. If on the other hand, the ADF statistic is higher than the Mackinnon critical values on the levels (i.e. without differencing), then a series is said to be integrated of order zero i.e. the series is stationary. The test results are presented in the table below.

Table 6: Stationarity and Cointegration Tests Results

Variable	ADF Statistics	Mackinnon CV	Level of Signf.	Order
Log(G)	5.37	4.37	1%	I(0)
Log(X)	-3.48	-2.9	5%	I(1)
Log(I_Edu)	-4.38	-3.7	1%	I(1)
Log(IRATE)	-5.87	-3.7	1%	I(1)
Log(REER)	-3.6	-2.9	5%	I(1)
RESIDUAL	-2.82	-2.6	10%	I(0)

The above results show that Log(X), Log(I_edu) and Log(REER) are integrated of order one, while log (G) is integrated of order zero. As a result of this, the relationship was subjected to a Cointegration test. This was done by subjecting the residual of the equation to stationarity test using the above procedure. The stationary residual (contained in the last row of the above table) shows that there is cointegration between economic growth and the explanatory variables used, a preliminary test for cointegration. This validates the regression and indicates that there is no spurious correlation. This means that the relationship estimated can be used for policy analyses purpose. In other words, the specified relationship and the variables used are important in explaining growth performance in The Gambia over the period of the analysis.

5.2.2 Regression Results

The above results indicate that since the above variables/time series are non-stationary, building a regression equation, without differencing, would have serious negative implications. As a result, any relationship estimated on the levels of these variables, cannot be relied upon to give an informed policy direction, in this case that can influence economic growth. It is therefore necessary to difference all the non-stationary variables before estimating the growth equation. The results obtained are stated below:

$$G = 0.4\text{Log}(X) + 1.1\text{Log}(I_Edu(-1)) + 5.6\text{Log}(REER) + 1.8\text{Log}(IRATE) + 1.4(SAP) + 2.5 ECT_{-1}$$

(1.06)
(1.5)
(2.5)
(0.9)
(2.6)
(1.4)

$$R^2 = 0.61 \quad R^2(\text{Adj}) = 0.40 \quad DW = 1.96$$

According to the results, expansion in exports has a positive impact on economic growth in The Gambia over the period specified. A one per cent increase in export volume will lead to a 0.4 per cent increase in economic growth and the variable was significant at the 10% significance level. This variable was used to indirectly

capture the impact of trade and exchange rate liberalisation on growth and has shown that these policies have had positive impact on growth. This is in line with the findings of Evangelos et al (1999) who concluded that the two policies and accompanying measures promote competition, encourage learning-by-doing, improve access to trade opportunities, raise the efficiency of resource allocation, and enhance positive externalities resulting from access to improved technology.

The real effective exchange rate had a positive impact on growth, with a high elasticity of 5.6, which indicates that an appreciation of the real effective exchange rate enhances economic growth in the Gambia. The finding by Evangel et al that depreciation of the real exchange rate raises the cost of imported capital goods and, and would tend to dampen private investment, and therefore have negative implications on growth, could not be validated by this study. However in a developing country situation like The Gambia, this finding is intuitively appealing as more often than not, depreciation of the exchange rate is usually accompanied by other macroeconomic distortions, and does not in fact lead to increased exportation, contrary to theoretical expectations I developed countries. Therefore, it logically follows that exchange rate depreciation would not lead to an increase in economic growth, but on the contrary, may even fuel macroeconomic disequilibria that could be detrimental to economic performance.

Regarding the investment in education, the thrust of this study, it should be mentioned that current expenditures in education lagged one period was shown to have a positive impact on economic growth. The variable has a positive impact on growth with an elasticity of 1.1 per cent, and significant at the 10% level. The implication is that a 1% increase in investment in education will lead to 1.1 per cent increase in economic growth a year later in the Gambia. Another important finding of the study is that the other variables that are empirically found to affect growth in The Gambia became insignificant when investment in education was removed from the equation, suggesting, reasonably, that investment in education may have some positive externalities that could be useful indirectly for economic growth.

Regarding the change in economic policy, captured by the dummy variable SAP, the study shows that the overall policy shift has had a positive impact on economic growth, with an elasticity of 1.4 percent, significant at 5% level.

5.3 Conclusion and Policy Recommendations

In light of the above findings, it can be concluded that education does really matter for economic growth in the Gambia and should be promoted at all cost. Effective exchange rate management, trade and exchange rate liberalisation measures are important ingredients in promoting economic growth in The Gambia. The real effective exchange rate has the highest impact on growth in the Gambia and should therefore be an important policy variable that can have strong positive/negative implications for growth depending on whether it appreciates or depreciates.

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Annex 1

Table 7: Total Government Expenditure on Education, 1984-2001

Year	Investment in Education (Govt)	Total Govt. Exp.	% Govt. Exp. on Education	Growth	Investment Rate
1974/75	3,378,640	27,121,705	12.46	11.500	6.4
1975/76	5,242,767	44,046,791	11.90	7.2 00	8.0
1976/77	7,281,366	60,219,120	12.09	4.600	8.2
1977/78	8,415,713	73,274,764	11.48	19.800	4.4
1978/79	9,346,355	76,160,326	12.27	-2.100	12.2
1979/80	12,262,916	91,251,468	13.44	9.900	11.4
1980/81	14,276,200	91,698,334	15.57	3.000	14.8
1981/82	17,200,124	137,268,189	12.53	-5.600	31.6
1982/83	20,636,000	130,541,000	15.80	17.300	27.1
1983/84	22,980,000	133,012,000	17.28	-9.800	26.2
1984/85	23,412,256	130,843,315	17.89	10.200	24.50
1985/86	24,192,484	150,747,646	16.05	12.700	20.60
1986/87	24,810,962	315,371,205	07.87	-5.300	17.30
1987/88	28,414,929	453,834,159	06.26	3.000	19.20
1988/89	44,335,860	422,940,838	10.48	0.600	15.80
1989/90	60,786,095	498,469,201	12.19	2.800	20.40
1990/91	71,580,054	517,703,260	13.83	6.000	18.50
1991/92	80,390,212	539,332,334	14.91	7.800	18.00
1992/93	94,610,046	661,919,424	14.29	5.000	22.00
1993/94	106,479,879	610,516,534	17.44	4.400	20.70
1994/95	115,260,633	670,114,528	17.20	4.500	21.90
1995/96	121,475,470	877,221,330	13.85	3.400	22.20
1996/97	133,344,670	923,698,120	14.44	3.000	21.00
1998	270,500,000	1119,850,000	24.15	13.500	18.10
1999	166,600,000	1118,200,000	14.89	0.200	20.20
2000	245,970,000	1192,100,000	20.63000	2.200	21.20000
2001	253,950,000	1192,100,000	21.30000	5.4000	17.70000

Annex 2

Table 8: Evolution of basic macroeconomic aggregates in The Gambia, 1973-1997

year	Infla	Deposit Rate	M2	M1	M2-M1	FIR	RGDP	NGDP	(M2-M1)/gdp
1973	6.9	-3.6 5-00000	311.3	257.7	53.6	0.34	610.3	119.7	0.05
1974	9.2	-3.5	313.3	245.0	68.3	0.28	731.3	180.7	0.05
1975	25.9	-4.0	282.3	220.0	62.2	0.26	685.6	203.5	0.05
1976	17.0	-3.2	352.0	248.8	103.2	0.29	724.3	245.2	0.08
1977	12.4	-2.1	275.3	178.3	97.0	0.22	733.3	308.5	0.07
1978	8.9	-3.9	369.0	237.8	131.3	0.32	706.0	314.9	0.10
1979	6.1	-1.1	318.7	224.0	94.6	0.24	819.1	359.5	0.07
1980	6.8	-1.8	329.2	222.4	106.8	0.22	776.0	367.3	0.08
1981	5.9	2.6	375.8	263.8	112.0	0.29	848.1	407.8	0.08
1982	10.9	-2.4	392.6	269.6	123.0	0.27	955.5	461.6	0.09
1983	10.6	-2.1	449.7	280.3	169.4	0.33	897.1	520.9	0.12
1984	22.1	-13.1	388.5	227.9	160.6	0.28	926.3	576.3	0.12
1985	18.3	-8.5	496.9	313.5	183.4	0.35	914.5	717.6	0.13
1986	56.6	-40.5	340.5	205.7	134.8	0.25	991.6	911.6	0.12
1987	23.5	-7.7	343.5	197.8	145.7	0.24	1040.5	1040.5	0.14
1988	11.7	3.3	352.9	191.2	161.8	0.22	1052.1	11161.5	0.16
1989	8.3	4.6	393.8	215.2	178.5	0.23	1125.7	1439.0	0.15
1990	12.2	-0.9	380.2	218.2	162.0	0.22	1143.5	1764.4	0.12
1991	8.6	4.1	440.2	267.1	173.1	0.22	1179.0	1819.1	0.14
1992	9.5	4.3	457.6	269.7	187.9	0.24	1219.0	1881.0	0.16
1993	6.5	6.5	512.9	284.3	228.7	0.26	1255.6	1937.4	0.19
1994	1.7	10.9	474.4	241.3	233.1	0.24	1258.1	1941.2	0.20
1995	7.0	5.5	517.2	266.5	250.7	0.26	1269.4	1958.7	0.22
1996	1.1	11.4	535.9	251.1	284.8	0.26	1297.4	2001.8	0.26
1997	2.8	9.7	645.7	338.9	306.8	0.30	1367.4	2109.9	0.27

Source: Adapted by the author from IFS and world tables (various publications). The calculation of proxy for financial saving in the banking sector is the author's own.

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