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**THE SOCIAL SECURITY AND  
NATIONAL INSURANCE TRUST:  
IS THERE THE NEED FOR REFORMS**

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# **THE SOCIAL SECURITY AND NATIONAL INSURANCE TRUST: IS THERE THE NEED FOR REFORMS**

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## AUTHORSHIP

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## PREFACE

This paper provides an assessment of the long-term financial viability of SSNIT based on the Auditor-General's reports for 1994 and 1997. It discusses some of the factors that adversely affect the long-term viability of the Trust as well as the issue of whether there is the need for reforms. It is suggested in the paper that the long term viability of the SSNIT is threatened by the high administrative costs, bad investments and the changing demographic structure of Ghana's population, which is exacerbated by the HIV/AIDS pandemic. It concludes by noting that these problems are a result of 'the incentive structure' associated with the scheme coupled with the government's excessive interference in the running of the Trust. It therefore lends support to the idea of breaking SSNIT's monopoly and recommends a Chilean-type scheme for Ghana.

Mrs. Jean Mensa  
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*Accra, June 2004*

## Summary

A major problem with the Social Security Scheme in Ghana is that it covers only a small proportion of the total labour force (about 8% in 1996). This problem is exacerbated by the fact that there is a general mistrust on the part of contributing workers, with respect to the proper running of the scheme. However for the contributing worker, there is no option of whether or not to join the SSNIT scheme. This means the Trust has a moral responsibility, in addition to its statutory obligation, to provide protection for contributors for the various contingencies as stipulated in the law (PNDCL 247, section 34). This paper has a simple aim: It assesses whether contributing workers need to worry about a possible collapse of the scheme, and if so what can be done to allay such fears. The assessment is based mainly on the Auditor General's Report of 1994 and 1997. The main issues discussed are summarized as follows.

First, the number of new members that joined the scheme between 1994 and 1996 exceeded the number of withdrawals as well as the number of pensioners. Growth in the number of pensioners was higher than growth in membership. This meant that the ratio of contributors to pensioners has decreased over the years. However, as at 1996 the 31:1 ratio was still higher than the ideal of 4:1, as reported in the Auditor General's Report.

Second, the demographic structure of Ghana's population is still favourable to the long-term viability of the SSNIT scheme. Coverage needs to be extended to maintain or improve the ratio of contributors to pensioners. In addition, HIV/AIDS poses a serious challenge to the long-term viability of the scheme. It is therefore important that SSNIT plays a more proactive role in the fight against the spread of the disease.

Third, there was a recovery in real cash contributions in 1996, following declines in 1994 and 1995. The recovery in 1996 was due to an increase in both the number and the real incomes of members. A worrying trend, however, was increasing levels of outstanding contributions. This, as pointed out in the Auditor General's Report, could affect the long-term viability of the scheme.

Fourth, growth in total benefits paid by SSNIT averaged about 88.3%

annually, exceeding growth in contributions of about 27.5%. This resulted in a reduction in the ratio of cash contribution to benefits paid. The higher growth in the amount of pensions paid relative to cash contributions received is consistent with the problem of the decreasing ratio of the number of contributors to pensioners.

Fifth, net new money for investment in real terms was lower in 1996 than it was in 1993. This was a result of decreasing real incomes and rising real expenditures. The fall in real income was due to the fact that the largest component of contributions received fell both in real terms and as a proportion of the total income. For expenditures, both components increased in real terms, with the payments of benefits becoming an increasingly important component. This is a direct result of the increasing number of pensioners.

Sixth, a large proportion of SSNIT investments was in long-term fixed income investment, and this proportion increased over the years looked at. However, the rate of return on this investment decreased over the same period. During 1996 all components of SSNIT's Investment Portfolio registered a negative real rate of return, except short-term fixed income investment. Over the years SSNIT should have been investing less in long-term fixed income investment, and probably more in short-term fixed income investments. This is because the short term fixed income investments had a rate of return that was higher than the interest rate (using the commercial bank rate as a proxy for interest rates). It is observed that this was not the case for SSNIT, and raises question on the prudence of SSNIT investments. One of the criteria that Social Security Investments must satisfy is that they must have a rate or return that is about 3 to 4 percentage points above inflation. In the case of SSNIT, the only asset that satisfied this condition in 1996 was the short term fixed income investments.

Finally, evidence from the Auditor General's Report supports the hypothesis that a major problem with the SSNIT scheme in general can be thought of as one of 'incentive'.. This problem relates to the fact that SSNIT gets what can be termed as 'easy money'. Significant portions of its income, in the form of worker contributions, are guaranteed. There is therefore little incentive to make good investment decisions as well as take proper care to avoid losses due to fraud. Evidence of this is the large number of banks for



which Reconciliation Statements are not prepared, and the unwillingness of management of the Trust to investigate reconciling items, as reported in the Auditor General's Report. It can be said that government is equally guilty in the mismanagement of workers contributions towards their pension. Evidence from the Auditor General's Report seems to suggest that some corporate loans were given with 'persuasion' from government. Some of these beneficiaries did not adhere to the repayment terms of the loans, resulting in losses for the Trust.

To end, we make some concluding points. First, it can be said that as at the end of 1996 SSNIT remained viable, as contributions exceeded expenditures, resulting in increasing stock of investible funds. But for the long-term viability of the scheme in its current form, policy needs to be directed towards the following:

1. There is the need to widen coverage of the scheme to help check the increasing dependency ratio. The advantage that SSNIT has in this regard is that it can still tap into the large portion of the working population that still remain outside the scheme.
2. The Trust needs to be at the forefront of the campaign against the spread of the HIV/AIDS pandemic.
3. There is a need to streamline operations in such a way as to reduce the expenditure ratio. Reducing the Trust's expenditure should be complemented by improving its services and benefits to meet the expectation of the insured population. This will go a long way to help the Trust entice those self-employed who are not obligated to do so by law, to join the scheme.
4. More investments must go into assets that have positive real rates of return. This is important to ensure that when the country gets to the demographic transition phase, in which its dependency ratio is unavoidably high, the scheme would be able to use the returns from investments to finance the scheme.

Second, the 'incentive problem' associated with the Trust (and in fact the pay-as-you-go scheme in general), coupled with the invincible hand of Government has led commentators to call for a reform of the SSNIT scheme. Reforming SSNIT would entail moving away from the current pay-as-you-

go financing scheme to one that is closer to the fully-funded type. Under this type of financing scheme each worker is the owner of all funds in his/her individual account, known in the Chilean example as the Pension Savings Account. This system is more transparent, as each worker knows the state of his/her retirement account at any given moment. There is therefore an incentive for individuals to enlarge their individual retirement accounts through additional voluntary contributions.

The attractiveness of this scheme, as opposed to the one that is practiced by SSNIT, are twofold. First, financial viability is assured since each worker will receive what s/he has contributed plus interest accrued on their accounts. Second, it will lead to the depoliticization of a huge sector of the economy and give individuals more control over their own lives. In the case of Chile, savings, and consequently investments and growth, is said to have resulted. Those who argue in favour of maintaining the current scheme, have to bear in mind that the inherent future insecurity of the current Social Security system (a paradox) is real and bound to happen at some point. The question therefore is not if but rather when we will reform SSNIT.

# 1. Introduction

The Social Security and National Insurance Trust (SSNIT) is the only legally authorised institution that manages a Pension Scheme for workers in Ghana. This is in accordance with PNDC Law 247 which requires employees of companies operating in Ghana to be members of the Scheme. The primary responsibilities of SSNIT include:

1. Administration of membership records
2. The collection and payments of contributions into a fund
3. The payments of benefits, and
4. The management of assets of the scheme.

At a time when the number of contributors relative to those on retirement in Ghana is still high, it may not seem so important to worry about the long-term viability of the SSNIT scheme. However, it is important that we take a cue from the current problems of Social Security schemes operated by other countries, especially the developed ones. The United States, for instance, has operated a Social Security scheme for the past 68 years, which currently is facing a financial crisis. It is estimated that in 15 years that programme would be running a deficit (Cato Institute, 2003).

Reform of the Social Security system has become an important policy issue in many countries. This has become necessary because their changing demographic, social and economic conditions are increasing the stress on the financial viability of the Social Security scheme. The effect of these factors on the viability of the Social Security scheme varies from country to country. For most developed countries, however, a major problem is to do with the aging population. In the case of SSNIT one major question that usually comes up is 'how prudent are SSNIT's investments?' (See J. B. da Rocha, 1999).

This paper provides an assessment of the SSNIT scheme in Ghana based on the Auditor General's reports for 1994 and 1997. In particular it tries to address the question of the long-term viability of the SSNIT scheme, and whether there is a need for reform.



## 2. Background on Social Security Schemes

The ILO defines Social Security broadly as a scheme aimed at achieving three key objectives. First is the insulation of members of society against economic and social distress caused by the substantial reduction of earnings. Lost or reduced earnings could result from sickness, maternity, employment injury, unemployment, invalidity, old age and death). The second objective of the scheme is the provision of medical care for its members. Finally, Social Security schemes aim at providing assistance for families raising children (Inductivo, H., 2002).

There are four main types of Social Security : Employer liability scheme, Provident fund scheme, Social Assistance, and Social Insurance. The scheme operated under SSNIT falls under Social Insurance. Given that our assessment is for SSNIT, we will discuss briefly the general principles of only the Social Insurance schemes.

Social Insurance is a compulsory participatory scheme involving the payment of contributions into a common fund from which costs of administration and payments of benefits are met. Such contributions are paid by the employer or the employee, or both. The six major principles of Social Insurance schemes are the following:

1. Coverage is compulsory. This is important to avoid the situation where many people will find the scheme too costly and therefore opt out.
2. The Scheme is contributory Financing of the scheme is obtained from contributions of both employers and employees.
3. Benefits are earnings-related The contributions paid are a function of the earnings of the individual. Also, the benefits paid are related in part to contributions made by or on behalf of the worker.
4. Surplus funds are invested. Funds not required to meet such immediate expenditures as administrative costs and payments of benefits need to be invested to earn additional income. This is to guarantee that the scheme remains solvent for a long period.



5. Pooling of risks. To enable the scheme to provide adequate benefits at low costs to all members, losses need to be spread over the entire covered groups.
6. Social adequacy over individual equity. This makes it possible for the benefits of low-income earners to exceed the actuarial value of their contributions.

It could be said that the SSNIT scheme satisfies all these principles in general. However, a big question mark remains as to whether the investments of surplus monies of the fund meet the accepted criteria for Social Security investments. This issue is addressed later in the paper.

### **3. Membership of the SSNIT Scheme in Ghana**

The total membership of the scheme increased from 646,608 in 1993 to 677,078 in 1996. In percentage terms this was an increase of about 4.7%. In 1996, the total membership of the scheme represented about 8.2% of the total Labour Force (Table 1).

The number of new members joining the scheme increased from 25,315 in 1993 to 38,419 in 1996, an increase of about 51 %. The largest increase in new members for the period under review was recorded for 1995, when the number increased by 39.92%. However, there was a slight drop of 3.12% in the number of new members joining the scheme between 1995 and 1996. The number of people withdrawing from the scheme each year declined between 1993 and 1996. In 1993 the number of withdrawals stood at about 7,712, but fell to about 4,666 in 1996, a drop of about 65.3%.

	Actual				% Change		
	1993	1994	1995	1996	1994	1995	1996
New Members	25315	28341	39655	38419	11.95	39.92	-3.12
Withdrawals	7712	3255	7522	4666	-57.79	131.09	37.97
No of Pensioners	6684	10738	16214	21775	60.65	51.00	34.30
Additions to membership	17603	25086	32133	33753	42.51	28.09	5.04
Membership at end of year	646608	611192	643325	677078	-5.48	5.26	5.25
% of Labour Force	8.35	7.70	7.94	8.16			

*Sources: Auditor Generals Reports, 1994-1997. The total labour force data is obtained from International Labour Organisation Database*

The number of new members has consistently been higher than withdrawals since 1993. This created a year-on-year increase in additions to membership of the scheme, from about 17,603 in 1993 to about 33,753 in 1996. The increase averaged about 25.2% annually. The number of pensioners increased proportionately more than the additions to membership of the scheme. The annual average increase in pensioners between 1994 and 1996 was about 48.6%. This accounts for the fall in the ratio of contributors to pensioners. As noted in the Auditor General's report (AG Report, 1997: p-55) the viability of the scheme could be affected if this trend continues.

The report states that management took steps to improve this ratio, but it is clear how this was going to be done. If it is the case of firms/individuals breaking the law by not joining the scheme, then management policies could be relatively effective. However, if management wants to attract say, the self-employed, and others not obligated to do so to join the scheme, it would have a lot to do. Also, ratio of contributors to pensioners ratio in part depends on the age structure of the population. There isn't a lot that management can do to affect the demographic transition phase in which the country finds itself.

### 3.2 *Age Structure of Ghana's Population*

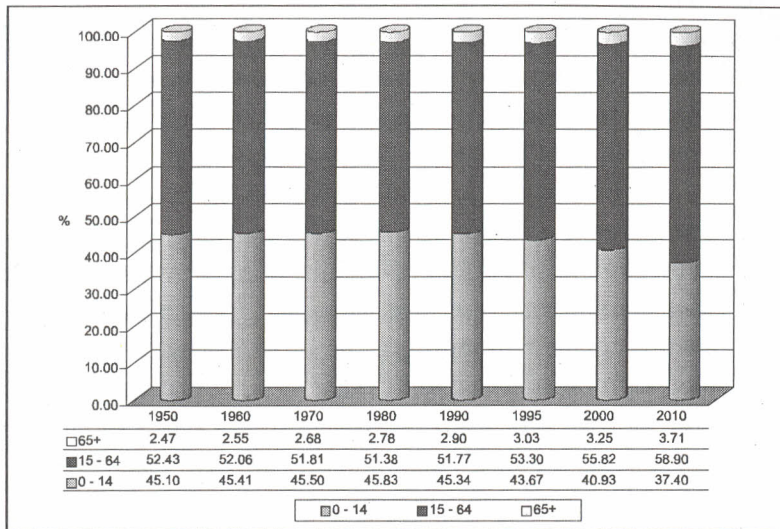
Figure 1. shows the changing structure of Ghana's population from the 1950s to the present. This plot shows that the population in the working group cohort (defined as individuals between the ages of 15 and 64) has been consistently over 50%. In 1950 the proportion of the population between the ages of 15 and 64 was about 52.4%. After falling to about 51.3% in 1980, a steady increase is observed thereafter, reaching about 55.8% in 2000. Given the high fertility rates in Ghana coupled with the declining mortality rates, this upward trend is expected to continue, and it is projected that this cohort will represent about 58.9% by 2010. It is also observed that the proportion of over 65 year olds has not increased very much since the 1950s. It increased from about 2.5% in 1950 to about 3.3% in 2000, and it is projected to increase to about 3.7% in 2010.

The nature of Ghana's population structure is such that the SSNIT Pension Scheme has the potential to remain viable. This is mainly for two reasons. First, because the relatively lower life-expectancy means that the proportion of the population that constitutes potential pensioners is relatively low in Ghana. Life-expectancy was about 57 years in 2000 for the average Ghanaian (World Bank, 2003). As shown in Figure 1, the proportion of over 65 year olds was about 3.3% in 2002. This compares to a proportion of about 14.7% of the over 65 year olds in Europe. Secondly, the high fertility rates in Ghana results in a relatively high proportion of under 15-year olds (under 15-year olds in Ghana were about 41% of the total population in 2000, compared to about 10% for Europe). Fertility rates in Ghana seem to be on the decline, decreasing from about 5.5 in 1990 to about 4.6 in 1995. However the hidden momentum of population, which describes the situation where the population growth continues even when fertility rates are declining, will ensure that the proportion of 15 year old to 64 year-olds remains high. This suggests that the demographic structure of the country is potentially favourable to the long-term viability of the Social Security scheme in Ghana.

In practice however, the population structure in Ghana will alone not be enough to make the Social Security scheme viable. First, it also depends on growth in the macro economy and the trickle-down effect of such growth in the form of increased employment, particularly in the formal sector.



**Figure 1. Changing Structure of Ghana's Population, 1960 - 2010**



Source: International Labour Organisation

Second, it depends on how effectively the Social Security net can be broadened to capture workers in the non-formal institutions. Raymond (2002: p-18) argues that the nature of a country's governance is important if it is to effectively widen the coverage of its Social Security net. This is because for the most vulnerable groups in society to have their income security met, it is important that their voices be heard.

The HIV/AIDS pandemic poses serious challenges to the Social Security system in Ghana. The spread of HIV can drastically alter the structure of the population in such a way as to work against the long-term viability of the Social Security scheme. HIV/AIDS affects relatively more of the economically active population. This is because the cohort of the economically active population also represents the most sexually active portion of the population. The HIV/AIDS pandemic therefore has implications for the ratio of contributors to pensioners.

## 4. Contributions and Payments of Pensions

### 4.1 Contributions

Total contributions to SSNIT were supposed to reach ₦185.73 billion in 1996. This was to be 44.28% higher than the total receivable contributions of ₦128.73 billion in 1995. However, actual cash received was ₦170.06 billion, an increase of about 47% over the 1995 level of ₦115.69. This meant outstanding contributions at the end of 1996 was ₦15.67 billion, which represented a 20.1% increase over the 1995 level of ₦13.04 billion. The increase in actual cash received was due to a rise in membership numbers, as well as an increase in the salaries of contributors (Auditor General's Report, 1997: p-56). A worrying trend however is the increasing level of outstanding contributions. This can work against the long-term viability of the scheme.

In real terms the actual cash received as contributions decreased from ₦160.26 billion in 1993 to ₦119.36 billion in 1994 and then to ₦115.69 billion in 1995. This represents a 25.52% and 3.08% in 1994 and 1995 respectively. There was a recovery in 1996, as cash received increased in real terms to ₦121.61 billion, an increase of 5.12% over the 1995 level. Even though there was a decline in cash received in real terms between

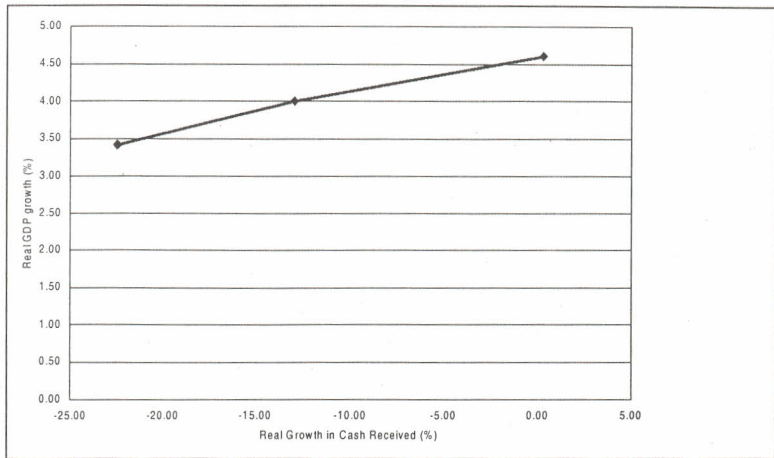
**Table 2. Contributions to SSNIT Pension Scheme, 1993-1996.**

	Actual (₦ Billion)				% change		
	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
	<i>Nominal Terms</i>						
Total contributions receivable	94.82	86.30	128.73	185.73	-8.98	49.16	44.28
Cash Received	86.10	83.35	115.69	170.06	-3.19	38.79	47.00
Outstanding contributions	8.72	2.95	13.04	15.67	-66.15	342.09	20.14
	<i>Real Terms (1995 = 100)</i>						
Total contributions receivable	176.48	123.59	128.73	132.82	-29.97	4.16	3.18
Cash Received	160.26	119.36	115.69	121.61	-25.52	-3.08	5.12
Outstanding contributions	16.22	4.22	13.04	11.21	-73.96	208.72	-14.09

Source: Auditor General's Reports, 1994 - 1997

**Figure 2. Plot of Growth in Real GDP Against**

**Real Cash Receipts, 1994 1996**



1993 and 1995, the trend in the growth rates of real cash received over the years was positive. This upward trend may be partly accounted for by the real growth in the economy. This is consistent with the Auditor General's report, and is reflected in the positive correlation between the real GDP growth of the economy and the real growth in cash balances (Figure 1). To the extent that an increase in real output of the economy indicates an increase in real incomes of workers, cash contributions received by SSNIT would increase. This explains the positive association as seen in Figure 1.

#### **4.2 Payments of Benefits**

In nominal terms, total benefits paid by SSNIT in 1996 amounted to ₦20.80 billion (Table 3). This represents a 53.6% increase over the 1995 level of about ₦13.54 billion. The largest component of benefits paid by SSNIT in 1996 were those that came under oldage/invalidity. These amounted to about ₦13.32 billion, roughly 64% of total benefits (Figure 2). The next largest component was that paid under deaths and survivors. This amounted to ₦4.99 billion (about 24% of total benefits paid). The remaining 12% of the total benefits were paid as part of the lumpsum under the old Provident scheme, and was made up of superannuation of ₦2.48billion and emigration of ₦0.02 billion.

Looking at the distribution of total benefits over time (1993 - 1996) one observes that SSNIT paid relatively more in terms of pensions, particularly oldage/invalidity, in the latter years. This increased share of payments for oldage/invalidity pensions seems to have substituted for payments under the superannuation scheme. It can be observed in Figure 2 that in 1993 the share of payments under the superannuation scheme was about 21.2%. This had decreased to about 11.9% by 1996. On the other hand payments made under oldage/invalidity pensions increased from about 53.7% in 1993 to about 64% in 1996.

Growth in total benefits paid averaged about 88.3% annually. This exceeded the 27.5% average annual growth in cash contributions actually received. This means there was a reduction in the in ratio of cash contributions to benefits paid from about 25.9% in 1993 to about 8.2% in 1996.

**Table 3. Payments of Benefits by SSNIT, 1993 1996**

	Actual (€ Billion)				% Change		
	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
	<i>Nominal Terms</i>						
<b>Lumpsum under old provident scheme</b>							
1. Superannuation	0.70	1.13	2.00	2.48	60.42	77.57	23.90
2. Emigration	0.00	0.00	0.01	0.02	-0.11	58.19	180.88
<b>Pensions</b>							
1. Oldage/invalidity-	1.79	4.71	8.48	13.32	163.67	80.04	56.99
2. Death and Survivors	0.83	2.28	3.05	4.99	175.65	33.87	63.28
<b>Total Benefits Paid</b>	<b>3.32</b>	<b>8.12</b>	<b>13.54</b>	<b>20.80</b>	<b>144.60</b>	<b>66.73</b>	<b>53.57</b>
	<i>Real Terms (1995 = 100)</i>						
<b>Lumpsum under old provident scheme</b>							
1. Superannuation	1.31	1.62	2.00	1.78	23.42	24.00	-11.40
2. Emigration	0.007	0.005	0.006	0.012	-23.15	10.47	100.86
<b>Pensions</b>							
1. Oldage/invalidity	3.33	6.75	8.48	9.52	102.85	25.73	12.26
2. Death and Survivors	1.54	3.27	3.05	3.57	112.07	-6.51	16.76
<b>Total Benefits Paid</b>	<b>6.18</b>	<b>11.63</b>	<b>13.54</b>	<b>14.87</b>	<b>88.18</b>	<b>16.43</b>	<b>9.82</b>

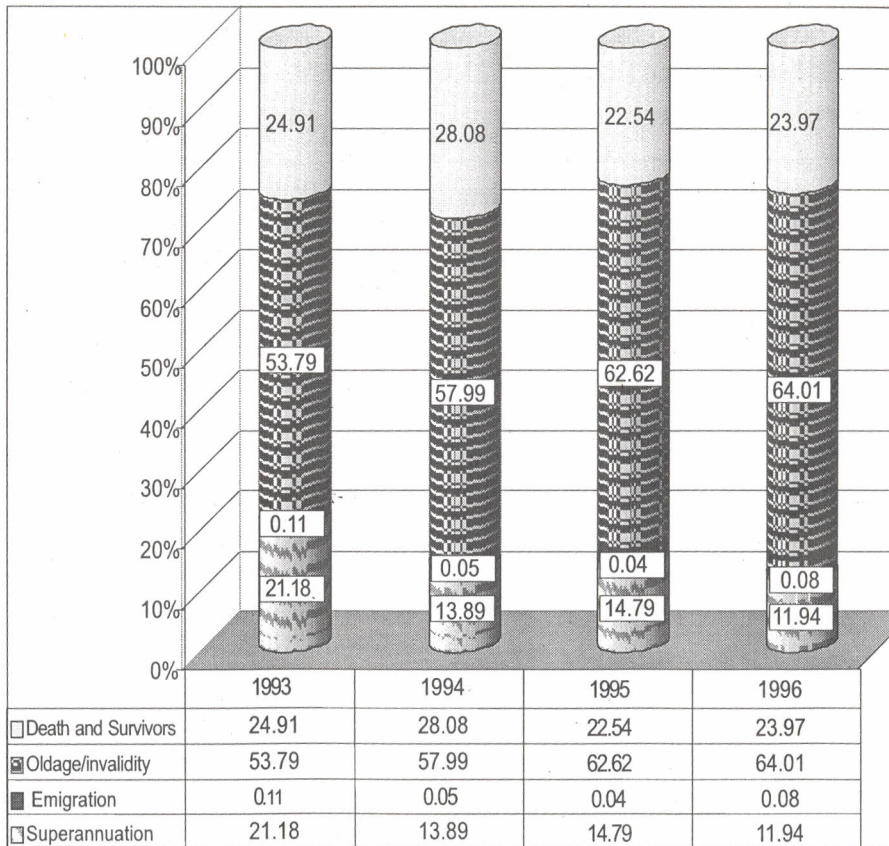
Source: Auditor General's Report, 1994 - 1997



## 5. Trends in Income and Expenditure

SSNIT's net new money for investment (defined as the difference between incomes and expenditure of the Trust) rose from  $\phi$ 120.45 billion in 1995 to

**Figure 2. Distribution of Benefits Paid by SNNIT, 1993-1996**



₺198.3 billion in 1996, an increase of about 64.7% (Table 4). In real terms the increase was about 17.8% in 1996. This positive real growth in net new money represented a recovery from the decline in 1994 and 1995 of 28.8% and 0.83% respectively in real terms.

## 5.2 Income

Total income of SSNIT in 1996 was ₺249.64 billion. This was about 61% over the 1995 level of ₺154.29 billion. Compared to the 1993 level of

**Table 4. Trends in SSNIT's Income and Expenditure, 1994-1997**

	₺ Billion				% Change		
	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>
<b>Income</b>							
Contributions Received	86.10	83.35	115.69	170.06	-3.19	38.79	47.00
Investment Income	17.75	27.10	37.32	75.72	52.68	37.72	102.90
Other Income	0.71	0.22	0.42	1.12	-69.56	91.48	168.69
Exchange gain	0.39	0.03	0.87	2.74	-92.68	2955.07	215.12
Total	104.95	110.70	154.29	249.64	5.48	39.38	61.80
<i>Real terms (1995=100)</i>	<i>195.35</i>	<i>158.52</i>	<i>154.29</i>	<i>178.52</i>	<i>-18.85</i>	<i>-2.67</i>	<i>15.70</i>
<b>Expenditure</b>							
Benefits Paid	3.32	8.12	13.54	20.80	144.60	66.73	53.57
General and Administrative	9.93	17.76	20.30	30.50	78.79	14.31	50.25
Total	13.25	25.88	33.84	51.30	95.28	30.76	51.58
<i>Real Terms (1995 = 100)</i>	<i>24.67</i>	<i>37.06</i>	<i>33.84</i>	<i>36.68</i>	<i>50.24</i>	<i>-8.69</i>	<i>8.39</i>
<b>Net New Money for Investment</b>	<b>91.70</b>	<b>84.81</b>	<b>120.45</b>	<b>198.34</b>	<b>-7.50</b>	<b>42.01</b>	<b>64.67</b>
<i>Real terms (1995=100)</i>	<i>170.68</i>	<i>121.45</i>	<i>120.45</i>	<i>141.83</i>	<i>-28.84</i>	<i>-0.83</i>	<i>17.76</i>

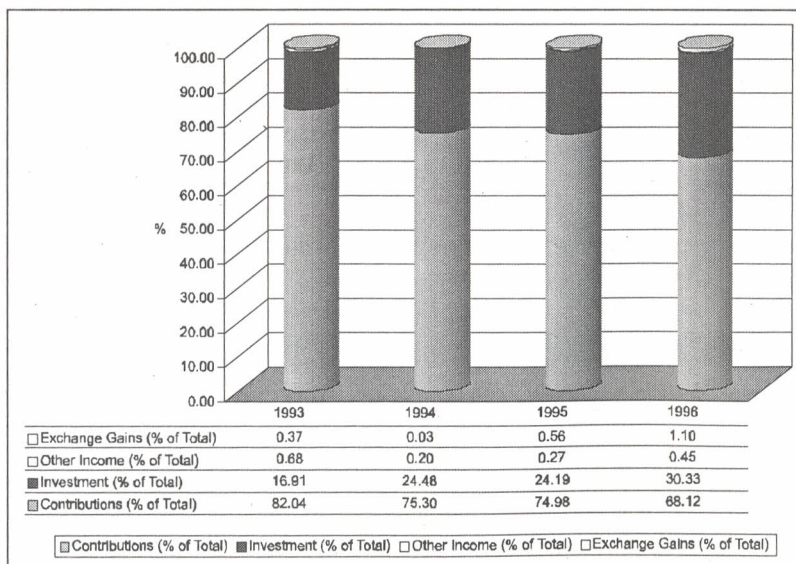
Source: Auditor Generals Reports, 1994 - 1997

¢104.95, SSNIT's income more than doubled. However the picture is totally different when inflation is factored in. In real terms the total income of the Trust decreased from ¢195.35 billion in 1993 to about ¢178.52 billion in 1996; a drop of about 4%. However, the 1996 real income level was 15.7% higher than the 1995 level of ¢154.29 billion. Figure 3 shows a plot of the components of SSNIT's income. It is observed that workers contributions provided the bulk of the income over the years 1993 - 1996. The share of SSNIT's income from worker contributions was 68.1% in 1996. This represented a fall of about 13.9 percentage points from the 1993 share of about 82%. SSNIT's income from investments became an increasingly larger share of total income over the period 1993 - 1996, as it increased from about 16.9% in 1993 to about 30.3% in 1996.

## 5.2 Expenditure

SSNIT's expenditure increased both in nominal and real terms over 1993 - 1996. In current value, total expenditure increased from ¢13.25 billion in

**Figure 3. Composition of SSNIT's Income**

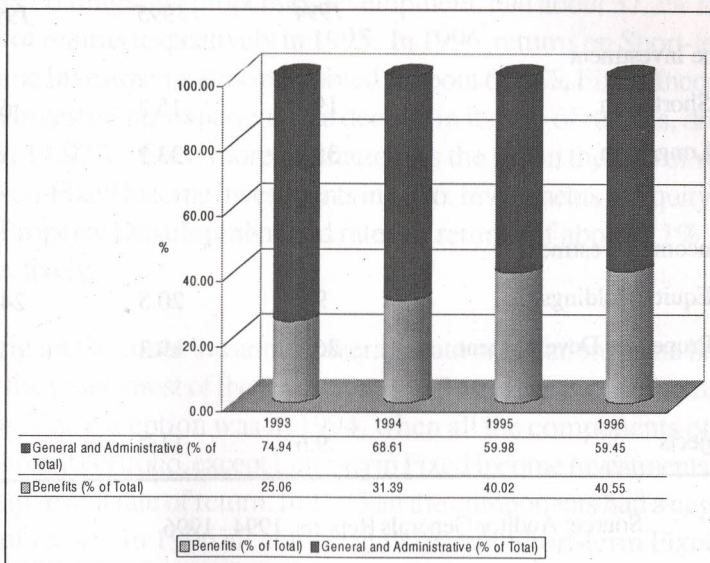




1993 to ₦33.84 billion in 1995 and ₦20.8 billion in 1996. Nominal expenditure growth in 1996 was about 51.6%. In real terms growth SSNIT's expenditure was about 8.39% in 1996. The level of SSNIT's expenditure in real terms, was lower in 1996 than it was in 1994.

General and Administrative expenditures formed the largest component of SSNIT's expenditure. However, the share of expenditure on payments of benefits increased in importance from 1993 to 1996 (Figure 4), reflecting the problem with increasing numbers of pensioners.

**Figure 4. SSNIT Expenditure Components**



Source: Auditor General's Report, 1994 1997

A large portion of the Trust's Investment Portfolio was made up of fixed income investments. The proportion of its Fixed Income Investment in the total portfolio was 54.4%, 48.5% and 55.9% respectively, over the period 1994 to 1996 (Table 5).

**Table 5. Distribution of SSNIT's Portfolio**

	1994	1995	1996
Fixed/Income Investment			
Short term	19.2	15.3	6.9
Long-term	35.2	33.2	49
Non Fixed Income Investment			
Equity Holdings	9.7	20.5	24.1
Properties Development	26.3	19.3	20
Ongoing projects	9.6	11.7	

Source: Auditor Generals Reports, 1994 - 1996

A significant part of fixed income investments were long-term, averaging over 73% of total fixed income investments. In 1996 there seems to have been a shift from short-term fixed income investment to long-term. Short term fixed income investments decreased from 15.3% of total portfolio in 1995 to 6.9% in 1996. Long-term fixed investments on the other hand, increased from 33.2% of total investment portfolio in 1995 to 49% in 1996.

For Non-Fixed Income Investments, equity holdings as a percent of total portfolio investments increased significantly in 1995/1996 compared to the 1994 level. In 1994 the proportion of equity holdings in the investment

portfolio was 9.7% (Table 5). This compares to the other component of non-fixed income investment (property development) which was 26.3%. By 1996 equity holdings had become about 24% of investment portfolio compared to about 20% for property development.

## **6.2 Returns on SSNIT investments**

The rate of returns on both Fixed and Non-Fixed Income Investments were not too different in 1994 and 1995. Short and long-term fixed income investment returns were respectively about 31.2% and 26.3% in 1995 (Table 6). The components of the Non-Fixed Income investments, equity holdings and properties development, had about 37.2% and 20.3% rates of returns respectively in 1995. In 1996, returns on Short-term Fixed Income Investments almost doubled to about 60.5%. Fixed-Income Long-term Investments experienced a decline in its rate of returns, dropping to about 14.97%. Even more dramatic was the fall in the rate of returns for the Non-Fixed Income Investments in 1996. Investments in Equity Holdings and Property Development had rates of returns of about 7.1% and 1.9% respectively.

Taking into account the annual average rate of inflation, it can be said that over the years, most of the investments had a negative rate of returns in real terms. The exception was in 1994, when all the components of SSNIT's investment portfolio, except Long-term Fixed Income Investments, recorded a positive real rate of return. In 1995 all the components had a negative real rate of return. In 1996 all components except Short-term Fixed Income Investments had a negative real rate of return.

A basic economic principle of investments is that an individual or firm should increase investments as long as the rate of return exceeds the prevailing interest rate (Henderson and Poole, 1991; p-520). In Table 6 the annual average Treasury-bill (T-bill) and commercial bank rates are also shown. If T-bills are used as a proxy for interest rates then one observes that.(???)

In 1995 the only component of SSNIT's investment portfolio that had a rate of return higher than the interest rate was Equity Holdings. Using the average annual commercial bank rate as a proxy for domestic interest rates, in 1995 short-term fixed income investments also qualified as a good



investment. In 1996 the rate of return on short-term fixed income investments was also higher than the interest rates (and this is applicable for both the T-bill and commercial bank rates).

This simple rule-of-thumb suggests that SSNIT should have invested proportionately more in equity holdings and short-term fixed income investments and less in property development and long-term fixed income

**Table 6. Returns on SSNIT's Investments**

	1994	1995	1996
Fixed/Income Investment			
Short term	19.2	15.3	6.9
Long-term	35.2	33.2	49
Non Fixed Income Investment			
Equity Holdings	9.7	20.5	24.1
Properties Development	26.3	19.3	20
Ongoing projects	9.6	11.7	

Source: Auditor Generals Reports, 1994 - 1997

investments. However, as observed in Table 5, the proportion of long-term fixed income investments in SSNIT's portfolio actually increased in 1996, and the rate of returns decreased quite significantly in that year. Is this a case of bad investment decisions by SSNIT?

Using these two simple criteria (i.e. looking at the real returns on SSNIT's investments and also comparing the rate of return with the prevailing interest rates) suggests that SSNIT made bad investment decisions. It is fair to argue that the assessment being made in this paper is ex post, whereas investment decisions taken by SSNIT are ex ante. Nevertheless, there is



no hiding from the fact that persistent negative real rate of returns on SSNIT's investments suggests the Trust is not doing a good job with regards to one of its primary function, which is to invest surplus funds. The accepted objectives of Social Security investments are that they must meet the following criteria (ILO, 1997):

1. *safety* - they must be in relatively low risk ventures
2. *yield* - they must have reasonable returns
3. *liquidity* - it must be easily converted into cash
4. *economic and societal utility* - they must have a positive impact on the economic planning and strategy of the country.

It is argued that to meet these criteria in practice, investments must be long-term in nature, adequately diverse, and the target long-term rates of return must be about 3 to 4 percentage points above the rate of inflation (Plamondon and Osborne, 2001). In the case of SSNIT, the only asset that satisfied this criterion in 1996 was short-term fixed income investments. In the 1996 Accountant General's Report it was argued that the low returns on non-fixed income investments can be attributed to the fact that; equities were mostly in their gestation period and that property development were ongoing and were yet to start yielding significant returns (SSNIT, 1996).

One of the contributory factors that accounted for the low rate of returns on SSNIT's investments was the large proportion of loans in total investments assets. Total loans increased from about ₦16.9 billion in 1993 (8.7% of total investment assets) to about ₦182.8 billion (34.1% of total investment assets) in 1996 (Table 7). It was noted in the Auditor General's Report that the beneficiaries of Corporate loans did not adhere to the repayment terms agreed. The report therefore suggested the regular monitoring of the loan position.

A very revealing picture emerges from the 1994 Auditor General's Report. The report makes the observation that loans were disbursed without completed loan agreements with beneficiaries. The report notes that "... as at 31st December, 1994 there were fifteen loans given to corporate bodies and agreements for all these loans were available except for loans

Fixed/Income Investment			
Short term	31.07	31.15	60.48
Long-term	23.56	26.31	14.97
Non Fixed Income Investment			
Equity Holdings	26.65	37.24	7.14
Properties Development	28.24	20.26	1.86
<b>Inflation - Annual Average</b>	<b>24.9</b>	<b>59.5</b>	<b>46.6</b>
<b>Treasury Bill rates</b>	<b>27.3</b>	<b>35.8</b>	<b>41.7</b>
<b>Commercial Bank Rates</b>	<b>23.1</b>	<b>28.7</b>	<b>34.5</b>

Source: Auditor General's Report, 1994-1997.

granted to Makola Market Ltd., Golden Beach Resort, and Ghana Toll Road Management Ltd."

The portions of both the 1994 and 1997 Reports on Corporate Loan Agreements highlight an incentive problem associated with the SSNIT scheme in general. Unlike other financial institutions, SSNIT has a lower incentive to make good investment decisions. This is because of the 'guaranteed' net inflows in the form of contributions less the benefits paid. The Trust can therefore afford to make bad investment and still remain viable, at least in the short-term.

This *incentive* problem is also manifested in the irregular preparation of Bank Reconciliation Statements. For instance, it is noted that 'Of the 44 reconciliation statements, we noted several issued cheques, amounting to ₵3,220,404,508.04, some dating as far back as 1994, which had not been

presented and therefore remained stale and invalid. No entries had been made in the records of the Trust to reflect the invalidity of these unrepresented cheques'. Some of these lapses were caused by inadequate preparation and review of bank Reconciliation Statements by Supervisors/Managers, and a general lackadaisical attitude towards investigation of reconciling items. Clearly these observations epitomizes the incentive problem and suggest the prevalence of fraud. In fact there were an even larger number of banks (about 90) for which Reconciliation Statements had not been prepared. Ironically, over two-thirds of these banks were branches of Ghana Commercial Bank and Social Security Bank, which tend to have strong links with SSNIT.

Also, even though the true owners are the contributing workers, they hardly have a say in how the Trust is run or managed. Rather, government has substantial control. It is therefore not surprising that some of the examples of corporate loans mentioned above have government influence 'written all over them'. It is observed by J. B. da Rocha (1999: p-4) that "there are indications that money from the fund is being spent on the directions of the government for the purposes which are not directly for the benefit of beneficiaries". Therefore 'government influence' exacerbates this incentive problem. A government that is not guilty of 'borrowing' money from SSNIT would have taken action about some of these problems as reported by the Auditor General.

## **7. Viability of Scheme**

Under a *pay-as-you-go* financing scheme Benefits and Administrative Expenses are to be fully met by current contributions in any given year (See Pamondon, 2001). This means that surpluses are recorded for a particular year if contributions exceed expenditures. The idea then is that the surpluses are invested until such time as the scheme begins to run deficits, and then they are used.

The long-term sustainability of the SSNIT scheme depends on three broad factors: Dependency ratio, replacement ratio and expenditure ratio. The dependency ratio is the ratio of the number of those on retirement to the number of members of the scheme. The replacement ratios is defined as



the average benefits to average wages. The expenditure ratio is defined as the ratio of General and Administrative Expenses to total wages of contributors. Keeping a cap on all three ratios is crucial to the long-term viability of the scheme.

These three ratios are calculated and shown in Table 8. Also in Table 8 is the minimum contribution rate. This shows the minimum rate of contribution that will ensure viability of the scheme. In other words whenever the statutory contribution rate is greater than this minimum, the SSNIT scheme will be generating surpluses for investment. As seen from Table 8, the minimum contribution rate was about 5.3% in 1996. This is well below the statutory rate of 17.5%, signifying that the SSNIT scheme was still financially viable in 1996. However it must be said that the 1996 level of about 5.3% represents an increase of about 96% over the 1993 level.

As argued earlier, the long-term viability of the scheme requires that growth in the minimum contribution rate is slowed down in order for significant surpluses to be generated and invested. Invariably this requires measures that will ensure that the ratios are kept in check. The dependency ratio is largely governed by the demographic structure of the population and by economic growth. It is seen from Table 8 that the dependency ratio increased from about 0.01 in 1993 to about 0.03 in 1996.

In other words, the number of contributors to a pensioner decreased from about 97 in 1993 to about 31 in 1996. As discussed earlier, projections suggest that the proportion of the cohort of working adults is expected to increase. This means that if the economy is able to grow and if there is sufficient trickle-down effect in terms of employment, then the objective of maintaining this ratio at low levels over a relatively longer term is not far-fetched. Also, the low proportion of members of the scheme to the labour force (about 8.2% in 1996) means there is a significantly large proportion of working Ghanaian's who are not part of the scheme. Tapping into this pool of non-contributing workers can only improve the long-term viability of the scheme.

The replacement ratios were particularly high in 1994 and 1995 (Table 8). In 1994 the average benefits paid to a pensioner was about 97% of the

**Table 8. Long-Term Financial Viability of SSNIT**

	€ Billion				% Change		
	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
<b>Loans</b>	16.89	51.47	96.27	182.82	204.78	87.05	89.89
Long-term corporate Loans	0.21	0.09	75.96	144.94	-58.45	86028.45	90.80
Student Loans	6.07	9.02	15.42	30.46	48.74	70.87	97.56
Short term Corporate Loans	10.61	42.36	4.89	7.42	299.29	-88.45	51.60
<b>Total Investment Assets</b>	<b>194.21</b>	<b>280.77</b>	<b>394.04</b>	<b>535.55</b>	<b>44.56</b>	<b>40.35</b>	<b>35.91</b>

Notes: Data was not obtained for the average wage of contributors. It is therefore calculated as the total cash contributions divided by the product of SSNIT's contribution rate of 17.5% and the membership number.

average wage. By 1996 however this ratio had dropped to about 66.6%. This downward trend favours the SSNIT scheme. Expenditure ratios increased from 0.02 in 1993 to about 0.03 in 1996. There is a need for the Trust to be prudent with its expenditure if the scheme is to remain financially viable over a long period. This is particularly important as a significant proportion of the contributions of workers goes into General Administration of the Trust. In 1993 about 11.5% of Workers Contributions went into the General Administration of the Trust. This had increased to about 17.9% by 1996. A significant portion of General Administrative expenditure is on wages and salaries. Salaries and allowances constituted about 51% and 43% respectively in 1995 and 1996.

The long-term viability of the scheme also depends on how the surpluses are invested. In the case of Ghana, this has been a key issue often raised by commentators on the SSNIT scheme (see J. B. da Rocha, 1999). As noted in a previous section, the returns on SSNIT investments have not been impressive. Most of SSNIT's investments over the years looked at, had negative real rate of returns. The original report of the auditors of

overstated. This is because not all the loan interest may have been received by the Trust, as some corporate borrowers had defaulted in their repayments. This implies that even the low rate of return on SSNIT investments are overstated.

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