INTERNATIONAL JOURNAL OF SOCIAL SCIENCES

Volume 5, Number 1, December 2006

South of Editor

IMOH E. UKPONG rsity of Uyo, Nigeria

ASS

ATE EDITORS

Patrick A. Linbong, Nigeria
Graham Chapman, UK
Leonard Baer, UK
Bassey Ate, Nigeria
Sunday Ukpong, Nigeria
Innocent V. Modo, Nigeria

Published in cooperation with the Faculty of Social Sciences, University of Uyo, Nigeria.



International Journal of Social Sciences

Vol. 5, No. 1 (2006) pp71-83

An Econometric Analysis of the Impact of Public Debt Burden on the Nigerian Economy

Dirisu Osiregbemhe Odion Momoh School of Part - Time Studies Federal Polytechnic, Auchi, Edo State

> ABSTRACT - Amongst development economists, the injection of capital from outside a system, be it corporate or national has become an acceptable way of boosting investment and improving the balance of payment. Thus, there is nothing wrong whatsoever in the accumulation of debt especially when the debtor's policies inspire confidence in his ability to manage his affairs effectively and repay the debt when due. A cause for concern arise however when the debt are accumulated at a fairly rapid pace far in excess of the debtor's capacity to repay or where the pattern of debt accumulation borders on financial imprudence only in such case do the magnitude of debt and their servicing obligations begin to pose serious problems to both the borrowers and his creditors. This study examines the impact of public debt burden on the Nigeria economy and agrees that public debt growth has negative implications on gross domestic investment and Nigeria's external trade. Certain policy recommendations are made to reduce the country's public debt burden, accelerate the growth of gross investment and improve balance of payment.

KEYWORDS: Debt burden, Impact, Analysis, Nigeria

INTRODUCTION

The origin of Nigeria's public debt dates back to 1958 when a loan of \$28m was contracted for railway construction. Until 1977, Nigeria did not borrow much. The oil boom of the middle 1970s brought the country sufficient foreign

An Econometric Analysis of the Impact of Public Debt Burden

exchange earnings to meet its obligations. With the emergence of an oil glut in 1978, however, Nigeria's revenue from the oil sector declined and it became expedient to borrow to support the balance of payments and to finance projects. Thereafter, borrowing increased with state governments contracting large external loans. Today, the country is facing an unprecedented debt burden. The magnitude of the debt and its associated adverse effects have become of great concern to the Nigerian government. The government, in its continuing effort at managing public debt, has embarked on measures such as debt conversion, debt rescheduling and debt servicing. The question that readily come to mind and require answers are: What is the nature of the debt burden and its impact on the economy? How effective are the strategies that have been employed so far in the settlement of the debt? And what other options are possible, if any? (Uniamikogbo, 1994).

Since public debt include both external and domestic debt, both will be examine side by side. Apart from the increasing public debt, other indicators of debt problem showed deteriorating trends for instance, to appreciate the dimension of Nigeria's domestic debt burden, it would be pertinent to undertake a brief review of its development. First, Nigeria's domestic debt stock stood at N 23.5 million or 1.0 percent of GDP in 1960 and subsequently, increased rapidly to N8,231.5 million or 16.2 percent of GDP in 1980, reaching N 1, 160.0 billion or 83.6 percent of GDP as at end-December, 2002-(Sanusi J.O; 2003). The sharp increase in domestic debt stock over the years, was attributable largely to the failure to embark on necessary adjustment, particularly at the time of declining revenue, that resulted in growing fiscal deficits and further domestic debt accumulation. Secondly, the bulk of the debt has been in short – term treasury securities with maturities of less than one years. Thirdly, the banking system, mainly the CBN remains the dominant holder of Federal Government Securities.

Domestic debt burden has hindered the attainment of macroeconomic stability and sustainable growth and this has been the result of excessive reliance by the Federal Government on borrowing from the banking system, particularly the CBN, to finance its large and unsustainable fiscal deficits. Such borrowing from the CBN amounts to the injection of high – powered money into the system, which has serious adverse implications on price and exchange rate stability. Similarly, it crowds out the private sector from the credit market, thereby stalling investment and output growth.

The balance of payments problem surfaced as a result of reduction in productivity and output caused by increasing debt stock and debt service. While the influencing effect is as a result of excess liquidity in the domestic economy caused by the injection of borrowed fund into the economy.

NIGERIA'S DEBT CRISIS

The World Bank, probably because of its status has contributed substantially to the measurement and discussions on developing countries debt and debt servicing problem. Avramoric and Gulhati (1960), as members of staff of the Bank had stressed the effects of the fall in commodity import demand by industrial countries and the subsequent downward movements in prices of the primary products which was not marched by falling import prices of developing countries as the major cause of the debt servicing problem. This deteriorating terms of trade, they concluded reduced real income and other macroeconomic variables which could have reduced the external debt. According to Obadan (1987) the Nigerian economy is not only characterized by heavy dependence on oil, but also has an "infant" manufacturing sector heavily dependent on imported input, technology and finance needed for economic development. This scenario, which is a consequence of internal and external disequilibrium, explains the reason for borrowing (Public debt).

Obadan (1992), in a more precise manner, analysed the causes of Nigerian public debt crisis with respect to domestic and external factors. The domestic factors include:- over- valued exchange rate, the huge fiscal deficits of the government over the years, the massive borrowing from the international capital market, and import licensing system, which precipitated phenomenal increase in short—terms arrears. The external factors include:- determination of the World economy in the 80's and interest rate adjustment in the developed countries.

Imalie (1991), observed "that the debt burden has put pressure on economic growth in Nigeria and other developing nations. Nigeria and Cote d' Voire from World debt table were identified among the fifteen of the World's heavily indebted nations".

Akerele (1991) opined that Nigeria public debt has serious impact on her economic growth. It is there fore necessary for sustained economic growth that debt must overtime, create the ability to service itself, and the only way to achieve this is to ensure that the loan is invested in activities with a rate of return sufficient to service the loan. In addition, the investment must enhance the ability of the country to generate foreign exchange. Since in the case of external debt, it must be serviced in foreign currency.

Anyanwu (1994) showed that sub- saharan African debt are mainly bilateral and multilateral long term debt, while the average maturity structure of the debt rose over his review period (1980-1991). The study also highlighted the upward trend in total debt service and interest payments. These phenomena were corroborated by Ojo (1994) who in addition, identified commodity price shocks, interest and exchange rate fluctuations, reverse resource flows to developed countries and domestic economic policies as factors contributing to the worsening

external debt situation in the sub-region.

According to Uniamikogbo (1994), these other indicators include the external debt to GDP ratio, the ratio of debt service to federally collected revenue, the ratio of interest payment to debt stock and the ratio of outstanding debt stock to Gross Domestic Product (GDP). These indicators ratios according to him show the degree of the severity or intensity of Nigeria's external debt burden. He further buttressed that the external debt burden can be better appreciated when the resources committed to debt service are relative to the proportion of National income devoted to servicing the economy. In a more restricted form, debt service burden may be defined in terms of the proportion of export of goods and services devoted to the debt service payment vis-à-vis the servicing of the economy as a whole. The more the proportion of the earnings from exports of goods and services that is devoted to debt service payment the less the proportion left for consumption and investment purpose. The debt service burden increases when export receipt declines or the returns on borrowed capital decreases. He concluded that, debt service problem would arise when maturing obligations cannot be redeemed owing to either liquidity or insolvency problems.

Oyejide (1985) refers to debt as the resources contributed by its owners and does not in any other way belong to them. He said that debt is generated by the gap between domestic savings and investment which can increase in absolute terms over time. As the gap widens and debt accumulates, interest charges also accumulate and the country must borrow increasing amounts just to maintain flow of net imports. It must also borrow to re-finance maturing debt obligations. Public debt therefore, is the amount at any given time of disbursed and outstanding contracted liabilities of a country to repay principal, with or without principal. Liabilities which fall within this core definition include currency and transferable deposit, other deposits, short—term bills and bonds, long-term loans and trade and credit advances.

Ojo (1994) posited that public debt per se whether domestic or external does not constitute a burden when contracted loans are optimally deployed and the returns on investment is enough to meet maturing obligations, while the servicing of the domestic economy is not undermined. Hence, where returns on investment over time is greater than or equal to the cost of borrowing or where the loan is self liquidating, a debt service burden would not arise in trying to determine the primary burden of a debt, two time periods should be distinguished:- the present when the debt is incurred and the future when the debt is serviced. Most economists agree that the primary burden of an internal or domestic debt is in the present, in the form of sacrifices in private production and hence in consumption and investment. The goods and services which could have been produced are forgone in the present. It is believed that there is no primary burden of debt in the future since the reduced

income of tax payers having to pay higher taxes are offset by increased income of bond holders who receive the interest payments on security held.

Okoh (1992), said that excessive debt can constitute a constraint to economic growth and development. The payment of interest and principal require the transfer of the nation real output to other countries, that is sizeable proportion of the nation's export earnings have to be reserved for debt servicing. The Nigerian situation serves as a case in point.

According to Onah (1994), one of the domestic causes in the LDCs including Nigeria, has been over ambition public authorities who want to speed up the rate of development in the face of inadequate domestic capital formation by rapidly expanding international liquidity. Both the public and the private sectors were able to secure credit from international capital market at what were then low real interest rates. Public sector borrowing was high because the government found it easier and more convenient to borrow than to raise taxes.

Ndekwu (1983), opined that a well organized credit or debt system provides the foundation for a sound financial system and growth of an economy. It is also observed that the economies of Western Europe and America thrive on credit system, but their level of debt is closely monitored to avoid any damage to the financial system and economy.

Olashore (1987), observed that with the declining revenue position of the government since 1980, there has been a market shift in the portfolio of government debt instrument in favour of short – term debt instruments. And the implication of this according to him is that the dominance of short term debt instruments led to a situation of rapidly increasing debt service obligation even when the projects so financed were still uncompleted. This makes it less possible for the government to meet its other recurrent and capital obligation. The greater the proportion of current revenue which has to be set aside to service debts, the more difficult it is to embark on new development oriented project. Infact, the liquidity crisis that cropped up in this country since 1981 arose partly as a result of the convenience in maturities of medium and short term loans.

METHODS OF ANALYSIS

This study makes use of the Ordinary Least Square (OLS) to ascertain the impact of public debt burden on the Nigerian economy.

The review of various literature had highlighted some of the problems of public debt burden on the Nigerian economy. It is clear that the critical factor affecting economic growth, investment and balance of payments is public debt. Therefore our model shall contain gross investment (GI) and balance of payments (BOP) as dependent variables while debt stock (DS), debt service payments (DSP), lending rate (LR), gross domestic product (GDP), exchange rate (ER),

An Econometric Analysis of the Impact of Public Debt Burden

lagged values of Gross Investment and Balance of Payments are independent or explanatory variables.

The functional relationship are specified as follows:

$$GI_{t} = f(PDS_{t}, DSP_{t}, GDP_{t}, LENDRT_{t}, GI_{t-1})$$
....(1a)
 $BOP_{t} = g(PDS_{t}, DSP_{t}, GDP_{t}, EXCHRT_{t}, BOP_{t-1})$(1b)

Equation (1a) and (1b) above can be transformed into an econometric model as follows:

$$GI_{t} = a_{0} + a_{1} PDS_{t} + a_{2} DSP_{t} + a_{3} GDP_{t} + a_{4} LENDRT_{t} + a_{5} GI_{t-1} + U_{t1}(2a)$$

 $BOP_{t} = b_{0} + b_{1} PDS_{t} + b_{2} DSP_{t} + b_{3} GDP_{t} + b_{4} EXCHRT_{t} + b_{5} BOP_{t-1} + U_{tz} .(2b)$

Where:

:	
=	Lagged value of gross investment
=	Present time period
=	Intercept term
=	Coefficient of public debt stock
=	Coefficient of debt service payments
==	Coefficient of gross domestic product
=	Coefficient of lending rate
	Coefficient of lagged value of gross investment
=	Error term
=	Lagged value of balance of payments
=	Present time period
==	Intercept term
=	Coefficient of public debt stock
=	Coefficient of debt service payments
=	Coefficient of gross domestic product
=	Coefficient of exchange rate
=	Coefficient of lagged value of balance of payments
=	Error term

We acknowledge the fact that there are other factors which affect the dependent variable but which might not be present in the model. We aim therefore to capture these variables with the error term (U).

A PRIORI EXPECTATION

a₁ is expected to be positive because an increase in public debt stock increases a country Gross Domestic Product because if money borrowed by government is spent on the productive sector of the economy it will boost the Gross Domestic Product and in turn increase investment.

a₂ is expected to be negative to investment since debt service payment reduces the available fund for investment thereby lowering the productive capacity of the economy a₃ is expected to be positive since an increase in Gross Domestic Product as a measure of economic growth increase investment.

a, is expected to be negative as high lending rate discourage investment.

a₅ is expected to be positive since present level of investment is directly proportional to its past or previous levels.

b₁ is expected to be positive because an increase in public debt stock increases a country Gross Domestic Product because if money borrowed by government is spent on the productive sector of the economy, it will boost the Gross Domestic Product and in turn lead to a favourable balance of payment.

b₂ is expected to be negative since Debt service payments reduces available fund for investment thereby reducing balance of payment.

b₃ is expected to be positive since increase in Gross Domestic Product bring about a favourable balance of payment because when borrowed money is spent judiciously, external trade is boosted and hence BOP rises.

b₄ is expected to be negative as high exchange rate reduces balance of payment.

b₅ is expected to be positive since the present level of balance of payment is expected to be positively influenced by its previous levels.

RESULTS

Two equations were specified and tested using the ordinary least squares regression techniques (OLS). The following are the results that were obtained from the regression.

$$GI = -0.11 - 0.12 PDS - 0.12 DSP + 0.83 GDP$$

$$(-0.09) (-0.34) (-2.44) (2.59)$$

$$+ 0.29 LENDRT + 0.17 GI$$

$$(0.47) (-3.68)$$

$$R^{2} = 0.87 DW = 2.24 F = (5,20) 25.9203(1a)$$

In equation (1a) above, we attempt to examine the joint impact of public debt stock, debt service payments, Gross domestic product, lending rate and lagged value of Gross investment on Gross investment. All signs of the explanatory variable except public debt stock and lending rate agree with the apriori expectation.

The result shows that public debt stock, debt service payments, Gross domestic product, lending rate and lagged value of Gross investment explained about 87 percent of the total variation in Gross investment. The t—values of the coefficient of all the explanatory variables except public debt stock and lending rate are significant at the 5 percent level so also is the lagged value of Gross

investment at the 1 percent level. The F – value of 25.9 is significant at the 1 percent level indicating that there is a significant linear relationship between the five regressors and the dependent variable. The Durbin Watson statistic however indicates that auto correlation is highly minimized.

The estimated coefficient indicate that a hundred percent increase in public debt stock, debt service payments, Gross domestic product, lending rate and lagged value of Gross investment will generate 12 percent decrease, 12 percent decrease, 83 percent increase, 29 percent increase and 17 percent increase in Gross investment respectively.

In equation (1b) above we attempt to examine the joint impact of public debt stock, debt service payments, Gross domestic product, Exchange rate and lagged value of Balance of payment on the balance of payment. All signs of the explanatory variables except public debt stock, debt service payment and lagged value of balance of payment agree with the apriori expectation.

The result shows that public debt stock, debt service payments, gross domestic product, Exchange rate and lagged value of balance of payment explained about 89 percent of the total variation in the balance of payment. The F- value of 32.1 is significant at the 1 percent level indicating that there is a linear relationship between the five regressors and the dependent variable. The t – values of the coefficient of all the explanatory variables except public debt stock are statistically significant at the 1 percent level. The Durbin Watson statistic however indicates that auto correlation is highly minimized.

The estimated coefficient indicate that a hundred percent increase in public debt stock, debt service payment, Gross domestic product, Exchange rate and lagged value of balance of payment will generate 14 percent decrease, 39 percent increase, 10 percent increase, 33 percent decrease and 99 percent decrease in the balance of payment.

DISCUSSIONS

The major policy implications of findings arising from the results of the model is that since public debt has a significant negative effect on the Nigerian economy, the money borrowed must be invested wisely in income generating projects that could repay the debt. When public loans are spent on mass importation of consumer goods or unviable projects, their effects on Gross investment and

balance of payments are likely to be negative. The result also confirms and accept the null hypothesis of the study that public debt growth has a negative implications on gross domestic investment in Nigeria, thus high debt burden has depressing effect on investment and the balance of payment. The implication of the result are that debt relief (with regard to external debt) resulting in reduced debt repayment out flows could serve to resuscitate investment growth and improve the balance of payment of Nigeria.

Although other factors contribute to the fall in gross investment and unfavourable balance of payment in Nigeria, the debt burden seems to be the most prominent factor among them. From our analysis one can observe that debt servicing has a significant effect on gross investment and the balance of payment. This condition shows us that resources which could have been used to accelerate the growth of investment and improve the balance of payment has been absorbed by debt servicing.

The high level of Nigeria's indebtedness has increase budget deficits which has in turn fueled inflation, and these high inflation rates led to high lending rate which discourage investment and deteriorate the balance of payment.

CONCLUSIONS

This study analysed the public debt burden on the Nigerian economy using the econometric technique of the ordinary least squares (OLS). The econometric technique exercise undertaken shows that the model performed reasonably well. Several conclusion can be drawn from the macro-econometric model. The results obtained confirms and Support the null hypothesis of the study that public debt growth has a negative implications on gross investment in Nigeria and reject the alternate hypothesis of the study that public debt has a positive impact on Nigeria's external trade. Similarly, increase in net debt outflows result in serious depression of domestic economic activity in Nigeria. For instance, investment remained generally depressed. Market forces in the form of lending rate and exchange rate play a significant allocative role in the economy. An appreciation of the exchange rate leads to lower foreign exchange earnings while higher domestic lending rate discourage investment.

From the study so far, one can say that Nigeria's present economic problems is as a result of unsustainable burden of her public debt especially external debt. The primary real burden of the public debt is indeed shifted to the future. Therefore in terms of intergenerational equity, public debt shifts burden to future generations. Successive generations bear burden in the form of an uncompensated distortion of their preferred pattern of consumption.

It is true that a major justification for borrowing (public debt) arises from the need to finance the excess of government expenditure over it's revenue and that public borrowing compliment domestic savings in order to make possible higher rate of capital formation or gross domestic investment and improve the balance of payment. In this respect, viable investment which could not otherwise be financed domestically would be made possible. This argument of course is predicted on the assumption that the acquired debt could be channelled to increase the productive capacity of the economy which in turn would generate returns for debt repayment to promote growth in gross investment and improve the balance of payment.

When on the other hand, there is gross economic mismanagement and investment turns into economically unviable projects, the situation result in increased debt stock and a growing debt service problems. This has been the experience of Nigeria and it has resulted in decrease in gross domestic investment and deteriorate the balance of payment. The credit worthiness of the country is also questioned, thus making it difficult for the country to restore its reputation in the international money and capital markets.

The growth in public debt has also resulted in an increased debt service payments. Since the debt service are charged to general government revenue their relative growth to revenue provides an important indicators of government ability to meet its other recurrent and capital obligations. The greater the proportion of resources allocated to service public debt the lesser the resources available for investment and other development oriented projects.

RECOMMENDATIONS

The analysis suggest that the debt problem of Nigeria should be based on an understanding of the structure of the economy, domestic economic policies, the economy's flexibility in adjusting to shocks and expectations of future events. In addition, public borrowing strategy must be made consistence with fiscal, monetary and trade policies. Adjustment assistance, supply of imports of capital goods and inputs, and moderate growth of government spending are important if the objectives of growth in gross investment and improve balance of payment are to be achieved. In addition, export can be stimulated by increasing the productive capacity of the economy. Insurance against external shock is also very important. Apart from consumption smoothing, another way out is to obtain commodity-linked bonds, which spread the risk between creditors and debtors in the event of a severe drop in commodity prices. Another is to include provisions in the loan agreement for severe output price shocks.

Given the potential beneficial effects of public debt stock reduction on gross investment and the balance of payment in Nigeria, it is recommended that as in the case of external debt, the international community should make a greater effort to provide debt reduction, preferably through debt forgiveness, as a matter

of priority. For domestic debt, it is recommended that the government should acquired domestic debt, restructuring of domestic debt and servicing of domestic debt. This is very important because the government seems to neglect or downplay on the potential negative impact of domestic debt burden on the Nigerian economy. It seems clear that provided appropriate domestic macroeconomic policies are implemented *pari passu* with debt reduction packages, debt reduction would provide a much needed stimulus to investment recovery and improve balance of payment in Nigeria in the years ahead.

There is need to avoid traditional rescheduling agreements in view of their inadequacies already noted. To this end, the country should negotiate with the Paris Club of creditors for better rescheduling terms entailing multi-year rescheduling, longer consolidation period and the recognition of Nigeria as a poor country, deserving debt write-offs and the eligibility to benefit from the International Monetary Fund's Enhanced Structural Adjustment Facility (ESAF), the Napels Term and the World Bank/IMF Heavily Indebted Poor Countries (HIPC) Initiative. There should of course be the political will to implement the New Public Borrowing Policy which has high potentials of ensuring efficient and effective management of public resources and debt.

REFERENCES

- Akelere, A.O; (1991), "Nigeria External Debt and Economic Growth in GH. Osagie (ed), Debt, financial, Economic stability and public policy, Ambik press, Benin City.
- Anyanwu, J.C; (1994), "An Analysis of the External Debt Burden of Sub Saharan African," in African Debt Burden and Economic Development. NES Annual Conference, Ibadan.
- Avramoric, D; and Gulhati, R; (1960) Debt servicing problems of low income countries, 1956-1958; the John Hopkins press, Baltimore.
- Imalie, A.S; (1991), Macro-economic Approach to External Debt, the case of Nigeria, AERC Research paper 8, Initiation Publishers, Nairobi.
- Ndekwu, E.C; (1983), Government Borrowing, Money Supply, and Monetary Policy in Nigeria, Government Monetary impact in a mixed economy, NISER, Ibadan.
- Obadan, M.I, (1987), "Financing of Nigerians Youth National Development plan, lesson of the past and Desirable options" IRORO Vol. 1 and 27, Economic Stability Policy, Ambik Press, Benin City.
- Obadan, M.I; (1992), External loans and National Development; the Nigerian Experience, Economic and Business Review, Vol. 1, No. 2, December.
- Ojo, M.O; (1994), "The African Debt Burden in Historical Perspective" in African Debt Burden and Economic Development, NES Annual Conference, Ibadan.

An Econometric Analysis of the Impact of Public Debt Burden

- Okoh, S.E.N; (1992), "The Nigerian External Debt management strategy: A Reassessment'. The Ecodigest, Vol. 5, NESA, University of Benin, Benin City.
- Olashore, O; (1987), "Nigeria's Internal Debt Structure and Implications", Business Times, January 12.
- Onah, F.E; (1994), "External Debt and Economic growth in Selected African Countries", NES Annual Conference, Ibadan.
- Oyejide, T.A; (1985), Nigeria and the IMF. Heinemann Educational Books Nig. Ltd; Ibadan.
- Sanusi, J.O; (2003), Management of Nigeria's Domestic Debt, Keynote address at the 7th Monetary Policy Forum Organized by the Central Bank of Nigeria at the CBN conference Hall, Abuja, 22nd May.
- Uniamikogbo, S.O; (1994), "The External Debt Burden: An Investigation Analysis of Nigeria's Experience", In African Debt Burden and Economic Development, NES Annual Conference, Ibadan.

APPENDIX

YEAR	Public Debt Stock (PDS)	Gross Investment (GI)	Gross Domestic Product (GDP)	Debt Service Payments (BOP)	Balance of Payments (BOP)	Lending Rate (LENDRT)	Exchange Rate (EXCHRT)
	3.7.	0.0 00000000000000000000000000000000000	550000000 0 000				
1975	2028.8	5,019.8	20,957.0	32.7000	1,204.0	6.00	0.62
1976	3004.6	8,107.3	26,656.3	34,4000	1,602.6	6.00	0.63
1977	5001.1	9,420.6	31,520.3	25,6000	537.0	6.00	0.65
1978	7235.2	9,386.3	34,540.1	160.8000	-2147.3	7.00	0,61
1979	8290.8	9,094.5	41,947.7	182,9000	3364.3	7.50	0.59
1980	10098.3	10,841.2	49,632.3	110.4000	5091.1	7.50	0.55
1981	13526.7	12,215.0	50,456.1	513.6000	-1816.3	7.75	0.61
1982	23829.9	10,922.0	51,570.4	7875.2	-2564.1	10.25	0.67
1983	32802.0	8,135.0	56,709.1	1335.2	-1401.2	10.00	0.72
1984	40483.7	5,417.0	63,006.4	2640.5	1909.7	12,50	0.77
1985	45252.6	5,573.0	71,368.1	3718.0	4658.2	9.25	0.89
1986	69892.6	7,323.0	72,128.3	2502.2	2937.0	10.50	2.02
1987	137579.7	10,661.1	106,883.2	35784.6	12498.9	17.50	4.02
1988	180987.4	12,383.7	142,678.4	8140.7	9747.1	16,50	4.54
1989	287444.8	18,414.1	222,457.7	15577,7	27111.0	26,80	7.39
1990	382707.2	30,626.8	257,873.0	30855.8	64168.2	25.50	8.04
1991	444254.5	35,423.9	320,247.4	35334,2	34515.2	20.01	9.9
1992	706164.3	58,640.3	544,330.6	47290.9	61354.6	29.80	17.29
1993	894237.7	80,948.1	691,606.8	39098.0	52669.7	36.09	22.0
1994	990079.3	85,021.8	911,091.3	40336.1	43270.4	21.00	21,8
1995	1055809.6	114,390.0	1,960,689.0	179891.2	195533.7	20.18	81.03
1996	960994.1	172,100.0	2,740,459.0	237100.4	746916.8	19.74	81.2
1997	954960.1	205,550.0	2,834,998,9	250516.9	395946.1	13.54	81.6
1998	1170507.9	192,990.0	2,765,670.0	183711.0	-85562.0	18,29	83,8
1999	3372189.7	177,450.0	3,193,660.0	174278.6	326499.2	21.32	92.3
2000	3995637.7	268,895.0	4,842,190.0	139264.7	1595167.5	17.98	100.80
2001	4193265,0	392,249.0	5,545,410.0	155424.0	509404.6	18.29	111.49
2002	4946209.6	279,250.0	5,726,190.0	33344.2	844161.8	24,4	120.4