An analysis of federal government expenditure and monetary policy on agricultural output in Nigeria

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Abstract: The need to determine the factors that promote investment decisions in agriculture both on the part of the government and the citizenry in order to put the economy on the part of sustainable growth and development prompted this study. The broad objective of the study is to analyze the effectiveness of government annual budgetary allocation to agriculture and the role of monetary policy instruments in the growth of agricultural GDP. Data were sourced from the CBN statistical bulletin (various issues), and the National Bureau of Statistics. The data covers 1980-2012 and the method of analysis used is the OLS using E-view. The result of the analysis showed that Agricultural Credit Guarantee Scheme Fund, previous year GDPand Consumer Price Index contribute positively to the growth of agricultural GDP, other variables of interest like the interest rate, exchange rate, and government expenditure on agriculture contributed negatively to agricultural GDP growth. The study therefore recommended that government should increase her spending to agricultural sector, monitor the fund allocated, and provide the necessary infrastructural facilities like good road network, electricity health and water for the rural populace. The study concluded by recommending that the CBN should encourage the investor to invest in agriculture by bringing the interest rate down to single digit in order to facilitate investment in agriculture and promote consistent growth of agricultural GDP.

Keywords: Monetary Policy Instruments, Agricultural Credit Guarantee Scheme, E-view, Ordinary Least Square, Agricultural GDP

1. Introduction

Every industrialized country today passed through the agrarian era. In fact, the industrial sector takes its roots from agricultural sector. In a developing nation, government fiscal responsibility is very central to all facets of development including agriculture (Iganiga and Unemhilin, 2011). The saying that "agriculture is the mainstay of Nigerian economy may have become a cliché'. It nevertheless underscores the emphasis placed on agriculture as the engine of growth in the Nigerian economy. Abayomi (1997) noted that stagnation in agriculture is the principal explanation for poor economic performance, while rising agricultural productivity has been the most important concomitant of successful industrialization.

Low agricultural output has a negative effect on the economy as a whole; there is a low production of food and raw materials for industries. A major challenge facing Nigeria is the inability to capture the financial services requirements of farmers and agribusiness owners who constitute about 70 percent of the population. Famers need access to capital to purchase land and equipment and to invest in the development of new products, services, production technologies and marketing strategies. Yet banks are often reluctant to lend money to farmers for agricultural enterprises due to lack of creditability and collateral.

The potential contribution of agriculture to economic development in Nigeria is discussed in two important government policy documents: (1) National Economic Empowerment and (2) the New Agricultural Policy Thrust (NAP). NEEDS, implemented in 2004 as Nigeria's home-grown poverty reduction strategy, emphasizes the importance of increasing agricultural production and safeguarding food security as the country pursues its

overarching goal of diversifying the economy away from oil (NPC, 2004). NAP, adopted in 2001 does not present a detailed action plan but articulates a vision of how agriculture can become an engine of growth and poverty reduction, identifies binding constraints to the realization of that vision and proposes policies to overcome those constraints (FMARD, 2001).

Generally, agricultural sector contributes to the development of an economy in four major ways. (I) product contribution, (ii) factor contribution, (iii) market contribution, (iv) foreign exchange contribution (Mackie 1964;Abayomi 1997; World Bank 2007). However, with Nigeria's agricultural sector continuity to underperform relative to the ambitions target set by government, hard questions are being asked about the quantity and quality of public expenditure decisions in agriculture, as well as about the appropriateness of the institutional environment in which public expenditure decisions are made.

Monetary policy has always been seen as a fundamental stability, often viewed as prerequisite to achieving sustainable output growth. Thus, in the pursuit of macroeconomic stability, the managers of monetary policy have often set targets on intermediate variables which include the short term interest rate, growth of money supply and exchange rate. Among these intermediate variables of monetary, the exchange rate is argued to have a greater influence on the economy through its effect on the value of domestic currency, domestic inflation etc. Increased exchange rate directly affects the prices of imported farm machines and other agricultural input which directly contribute to increase in inflation (CBN, 2008). The rest of the paper proceeds as follows. Section two presents a review of literature while section three presents the methodology for the study. In section four, the findings were discussed while section five summarizes the major findings and offers some policy recommendations.

2. Theoretical Framework and Review of Literature

There are the monetarist viewpoints represented by Friedman (1969) (1), the Keynesian school and lastly the one represented by Raddiffe (1963) (2). Friedman (1969) is of the view that changes the stock of money is closely related to changes in the price level and through it, on other general economic aggregates. But, precision and rigidity in this relationship is distorted because of changes in output and the amount of money that the public desires to hold relative to its income. The effects of these changes are not to be seen as instantaneous as there is sometimes lag between the application of themonetary policy and its effectiveness. Keynesian viewpoint is that money plays a role in the determination of real output, general price level and other macro-economic variables. According to this school of thought, national income depends on the interplay between such variables as expected rate of profit and

interest. The rate of interest is a function of the supply of and the demand for money. Equilibrium income depends on two conditions in this model, that is: planned savings must be equal to planned investment and at any point in time, supply of money must equal demand for money. But both savings, investment, demand for and supply of money is influenced by changes in the rate of interest. Within this context, monetary policy will consist of altering the rate of interest to achieve the desired trend in the economy. The effectiveness of monetary policy will then depend on the interest to achieve the desired trend in the economy. The effectiveness of monetary policy will then depend on the interest elasticity of demand for money. This also dictate the effectiveness or otherwise, in combating depression as well as inflation.

2.1. Review of Literature

Friedman, M. (1969) defines monetary policy as the action taken by the monetary authorities usually the Central Bank to affect monetary and other financial conditions through influence over the availability and cost of credit in pursuit of the broad objectives of sustainable growth of output, price stability and a healthy balance of payments position. The discretionary control of the money stock to him involves the expansion or contraction of money and influencing interest rate to make money cheaper or more expensive depending on the prevailing economic conditions and thrust of policy. He went further to classify the instruments of monetary control into two broad categories – direct and indirect instruments. Under a system of direct monetary control, the Central Bank uses some criteria to determine monetary, credit and interest rate targets that would achieve the goals of economic policy. In a regime of indirect monetary control, the monetary base (specifically bank reserves) is managed while the market is left to determine interest rates and credit allocation.

2.1.1. Agricultural Financing in Nigeria

Agricultural finance is basically related to agricultural development. It is based on the economic belief that agricultural development is a process that involves adoption by farmers of new production practices and the acquisition of new input materials. Unfortunately, the rural capital market cannot supply the needed funds to finance such innovations. As a result, agricultural development in Nigeria as in similar developing nations is stunted. The problem of agricultural finance then becomes that of finding adequate fund for agricultural development, identifying the right farmers who could benefit from such fund, extending such fund to the right section are the Nigerian farm credit corporation and the new programmes.

The Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) has been restructured and is being recapitalized for greater efficiency and to provide credits to individual farmers, cooperative societies/bodies for all classes of agricultural projects. The bank is also concentrating on the promotion of its popular "group

lending scheme" whereby a much higher proportion of the active farming population is being reached by its retail outlets across its six zonal offices. The Bank Management is supporting the new policy orientation of the present administration regarding poverty alleviation by emphasizing micro credit. The bank is now strongly committed to the promotion ofgrass roots based, small and medium farming activities in the country. The on-going injection of N50 billion equity shares into NACRBD by the Federal Government is to empower the bank to meet the challenges of poverty alleviation and food production through timely disbursement of credits. The bank is also supporting the promotion of Animal Traction and Hand Tool Technology. It has instituted several credits and savings schemes for farmers and rural dwellers that constituted about 70% of the nation's population.

2.1.2. The National Agricultural Policy

In an attempt to tackle the problems facing the Agricultural Sector in Nigeria, Government has put in place the National Agricultural Policy, which was jointly formulated by the national stakeholders and International Development Partners and approved by the Federal Government in 2002. The major components of the national Agricultural Policy, the "National Economic Empowerment and Development Strategy (NEEDS)" document. Specifically, the National Agricultural Policy assigns supportive roles to the government, vehicle investments in the sector are left to the private sector initiative. The broad objectives of the National Agricultural Policy include; Promotion of self-sufficiency in food and raw materials for industries; recognition that agriculture is business, hence a private sector concern where the role of government is to facilitate and support private sector initiatives; promoting reliance on local resources ; diversification of the sources of foreign exchange earnings through increased agricultural exports arising from adoption of appropriate technologies in food production and distribution, which specifically responds to the needs of women, bearing in mind that they constitute over 50% of the labour force in agriculture.

2.1.3. Agricultural Credit Support Scheme (ACSS)

The Federal Government and the Central Bank of Nigeria have initiated the establishment of an Agricultural Credit Support Scheme (ACSS), with the active support and participation of the Bankers' Committee. The Scheme had a fund of N50.0 billion (Fifty Billion Naira) contributed by the following participants:

i.   N30 Billion (N1 Billion each) from the Universal Banks. N5 Billion additionally from the 5 big banks i.e. First Bank, Union Bank, UBA, Zenith and GTB;
ii. N6 Billion from SMEEIS;
iii. N% Billion from NACRDB;
iv. N2.5 Billion from ACGSF;
v.   N0.7 Billion from debt relief (MDG);
vi. N200 million each from the State Governments. (7.2 Billion).

The purpose of the ACSS is to develop the agricultural sector of the Nigerian economy by providing credit facilities to famers at single digit interest rate. This is to enable farmers exploit the untapped potentials of the sector with a view to reducing the cost of agricultural production, and increase output on a sustainable basis. These efforts are expected to lead to fall in prices of agricultural produce, especially food items, thereby leading to reduction in inflation rate, generate surplus for export, diversify the revenue base and increased foreign exchange earnings for the country. The willingness of deposit money banks to dedicate part of their loan able funds to participate in indicative of their readiness to actively promote the growth and development of the real sector of the economy. As custodians of shareholders/ depositors funds, participating banks are expected to exhibit high degree of due diligence in appraising credit requests under the ACSS as is applicable in their normal course of business.

Public expenditure analysis in Nigeria is complicated by the country's federal system of government, under which responsibility for the provision of public goods and services is spread across three tiers of government. The roles and responsibilities assigned to the federal, state, and local governments regarding the provision of public goods and services in agriculture are defined principally in the 1999 constitution, the 2001 New Agricultural Policy Thrust, and 2004 National Empowerment and Economic Development Strategy. The 1999 constitution specifies, under the exclusive list, the areas in which the federal government has exclusive powers to make laws (through the National Assembly) The constitution also specifies, under the concurrent list, the areas in which the federal and state governments both can make laws (the latter through their house of assembly). In addition, the constitution identifies the activities for which local government are primarily responsible and it describes the areas in which local governments are empowered to participate alongside the state governments (Nigeria 1999).

In 2001, the government of Nigeria formulated a national agricultural development policy, which was articulate in the New Agricultural Policy Thrust (NAP) document. The goals of the national agricultural development policy as stated in NAP included:

(i)   Improving the macroeconomic environment for private sector investment in agriculture
(ii) Clarifying the roles of each tier of government in the sector
(iii) Improving the institution framework for government interventions
(iv) Prioritizing integrated rural development
(v)   Increasing public spending to agriculture
(vi) Using trade policy measures to improve fiscal incentives in agriculture and
(vii) Increasing the use of agricultural machinery and modern inputs (IFPRI...)

Chimobi and Uche (2010) examined the relationship between money, inflation and output in Nigeria covering the period 1970 to 2005. Using co-integration and granger

–causality test analysis, the study revealed no existence of a co-integrating vector in the series used. Money supply was seen to granger cause both output and inflation. The study also found empirical support in context to the money-prices-output hypothesis for Nigerian economy. M2 have a strong causal effect on the real output as well as on prices. This suggests that monetary stability in the Nigerian economy since the variance in price level is mainly caused by money supply, The study concluded that inflation in Nigeria is to a much extent a monetary phenomenon.

FAO (2008) reported that in terms of capital allocation to agriculture in Nigeria, it was an average of 4.74 percent from 1970-1980. But, from 1980-2000, it rose to 7.00 percent and 10 percent from 2001-2001, though revealing an increase, but still falls short of Food and Agricultural Organisation (FAO) recommendation that 25 percent of government capital budget be assigned to the agricultural development capital budget.

Iganiga and Unemhilin (2011) examined the impact of federal government agricultural expenditure on agricultural output in Nigeria. The study covers 1970 to 2008 and it used the Cobb Douglas growth model, Descriptive statistics, and Econometric model to analyze the data (by employing ECM). Their findings show that the federal government capital expenditure was positively related to agricultural output. However, with one year lag period, it shows that the impact of government expenditure on agriculture is not instantaneous. Though the study observed that the investment in agricultural sector is imperative and that it should be complemented with monitored credit facilities, and food importation should be banned to encourage local producers.

Okhira and Saliu (2008) examined the impact of exchange rate on inflation rate and the relationship that exist among government expenditure, money supply , exchange rate, oil revenue and inflation in Nigeria. The study employed the Augmented Dickey Fuller to carry out the unit root test and co-integration with Johansen test. The study observed that variables are correlated, which means the impact of each variable on the rate of inflation in the economy is inseparable. Also that there was a strong long run relationship. The study also added that measure by government to reducing amount of money supplied, government expenditure and control measure on exchange rate could lead to poor productivity in the country. The study finally recommends that the policy maker should try to cushion the effect of inflation on the country when the need comes such that rise in exchange rate will not lead to inflationary pressure in the short run even though inflation and exchange have no long run relationship, short run relationship however do exit.

Yusuf and Yusuf (2007) also examined the determinants of selected agricultural export crops in Nigeria covering 30 years using three major agricultural exportable commodities of cocoa, rubber and palm kernel. The results of the parsimonious error correction specifications showed that the previous year's output and the net value of world trade negatively affect cocoa exports at 1 percent level while the previous year's GDP positively contributes to cocoa export at 5 percent. The legged price ratio reduces rubber export significantly at 5 percent but the real exchange rate significantly increases the export performance of rubber at 10 percent level. The previous year's exports of palm kernel and the real GDP contributed positively to palm kernel exports at 5 percent level while the lagged premium and palm kernel output negatively contributed to its export at 5 percent and 10 percent respectively. Then, it was concluded that promotion of agricultural exports is essential to reduce the burden of dependence on oil exports.

Folawewo and Oshinubi (2006) examined the efficacy of monetary policy in controlling inflation and exchange rate instability in Nigeria covering the period of 1980:1 to 2004:4 and employing the national expectation framework and time series analysis. The study observed that the effort of monetary policy at influencing the finance of government fiscal deficit through the determination of the inflation tax rate affects both the rate of inflation and the real exchange rate, thereby causing volatility in their rates. The study found that inflation affects volatility of its own rate as well as the rate of real exchange and the study concluded that monetary policy should be set in such a way that the objective it is to achieve is well defined.

3. Methodology

The broad objective of this study is to analyse the effectiveness of government spending and monetary policies on agricultural production in Nigeria.

Secondary data were used in this study and the date were sourced from the publications of the Central bank of Nigeria (CBN) such as C.B.N. statistical bulletin, CBN statement of Accounts and annual reports, as well as Federal Office of Statistics i.e. National Bureau of Statistics Publications. The relevant variables for which data were sourced include: Agricultural GDP, Annual Budgetary allocation to Agriculture (EXP), foreign Private Investment (FPI), Agricultural Credit Guarantee scheme Fund (ACGSF), Interest rate (INT), Exchange rate (GEAG), and inflation rate represented by the consumer price index (CPI)

The method of analysis used is the ordinary least Square Method (OLS), using E-view. The two models to capture the effect of government spending and monetary policies on agricultural production are stated below with the independent variables as Annual budgetary allocation, Foreign Private Investment (FPI), Agricultural Credit Guarantee Scheme Fund (ACGSF). Interest rate (INT), Exchange rate (GEAG), and consumer price index while the dependent variable is agricultural GDP.

3.1. The Model

$$AGR\text{-}GDP_t = \alpha_0 + \beta_1 GOV - EXP_{t-1} + \beta_2 FPI_{t-1} + \beta_3 ACGSF_{t-1} + \beta_4 INT_{t-1} + \beta_5 GEAG_{t-1} + \beta_6 CPI_{t-1} + u_i$$

Where $AGR\text{-}GDP_t$ = Output of the Agricultural Sector

for current year.

FPI = Foreign Private Investment for previous year.

ACGSF = Agricultural Credit guarantee scheme fund for previous year.

GOV-EXP = Government annual budgetary allocation for previous year

INTEREST = Interest rate for previous year

EXCHANGE =   Exchange rate for previous year

CPI = Consumer Price index for previous years

$\alpha_0, \beta_1, \beta_2, \beta_3$ = constants u_i = Error term.

3.2. Unit Root Test

Previous studies indicate that time series data for agricultural and industrial prices, exchange rate, inflation rate, and money supply, be it monthly, quarterly or annually, are likely to be nonstationary (see for example Saghaian et al., 2002; Bakucs and Ferto,2005; Cho et al., 2004). In this study, the Augmented Dickey Fuller (ADF) unit root test is performed to test for the stationarity of the variables considered. The result is presented in Table 1.

Table 1. ADF Statistics for testing the stationarity of the variables.

Variable	Specification	Lag length	Coefficient	Test statistic
D(LOGAGGDP)	Constant only	1	-1.0377	-5.5939
D(LOGACGSFI)	Constant only	0	-0.7634	-4.1966
D(LOGFPI)	Constant only	0	-1.0107	-5.4462
D(LOGCPI)	Constant only	1	-1.3116	-5.3999
D(LOGGEAG)	Constant only	2	-2.8113	-6.1796
D(LOGINT)	Constant only	1	-1.6801	-5.3947
D(LOGEXP)	Constant only	0	-0.4385	-3.0277

5% critical value for the ADF is -3.00 when only intercept is included. (This was chosen since 32 observations were used).

The ADF tests for all the variables in Table 1 show that the absolute values of the ADF test statistics (after first differencing), were higher than the 5% critical value. This suggests that the null hypothesis of the unit root for these variables is rejected.

Table 2. The Trace and Maximum Eigen statistics for testing cointegration rank.

Null Hypothesis	Eigen value	Trace Statistic	0.05 Critical value
r=0	0.928747	207.9348	125.6154
r>/=1	0.797601	126.0479	95.75366
r>/=2	0.616691	76.52497	0.0132
Null Hypothesis	**Eigen value**	**Max-Eigen Statistics**	**0.05 Critical value**
r=0	0.928747	81.88692	46.23142
r>/=1	0.797601	49.52288	40.07757

The study employs the Johansen approach to determine and estimate the cointegrating relationships among the variables used and the result is shown in table 2 above. The maximum eigenvalue and trace statistics were generated to determine the number of cointegrating vectors (r). The trace statistics test rejected the null hypothesis that r=0, r>/=1, and r>/=2 at 5% significant level. However, it failed to reject the null hypothesis that r>/=3 at 5% significant level. Thus, the trace statistics indicates 3 cointegrating vectors at the 5% level.

Conversely, the maximum eigen statistic indicates only two cointegrating vectors. Monte Carlo studies suggest that the trace statistic is more robust to both skewness and excess kurtosis in residuals that the maximum eigen value test (Fedderke, 2001). Therefore, based on the results of the trace statistics, it was concluded that there are three cointegrating vectors among the variables considered. The existence of three cointegrating vectors among these variables implies that shocks to macroeconomic variables find their way into the agricultural sector.

Table 3. Result of the Parsimonious error correction model.

Regressor	Coefficient	Std. error	T-statistic	Probability
C	4.006812	0.610363	6.564635	0.0000
D(LOGAGGDP)(-1)	0.160403	0.109633	1.463092	0.1641
D(LOGACGSFI)(-1)	0.372310	0.194553	1.913670	0.0749
D(LOGCPI)(-1)	0.052511	0.254792	0.206095	0.8395
D(LOGEXP)(-1)	-0.016398	0.024617	-0.666130	0.5154
D(LOGFPI)(-1)	0.128483	0.223295	0.575395	0.5736
D(LOGGEAG)(-1)	-0.098340	0.088834	-1.107013	0.2857
D(LOGINT)(-1)	-0.370764	0.236249	-1.569379	0.1374
D(LOGACGSFI)(-2)	0.051137	0.193096	0.264826	0.7947
D(LOGCPI)(-2)	0.603070	0.301719	1.998782	0.0641
D(LOGEXP)(-2)	-0.045028	0.025251	-1.783210	0.0948
D(LOGFPI)(-2)	-0.059276	0.254118	-0.233261	0.8187
D(LOGGEAG)(-2)	-0.055614	0.082011	-0.678128	0.5080
D(LOGINT)(-2)	0.140110	0.236188	0.593213	0.5619
D(LOGAGGDP)(-2)	-0.073792	0.085360	-0.864476	0.4009
ECM(-1)	0.855635	0.094790	9.026600	0.0000

R-squared =0.977610, Durbin Watsonstatistics =2.283710, F-statistics =88.32522

The result of the parsimonious model shows that the one year period lags of output of agriculture (GDP), and Agricultural Credit Guarantee Scheme Fund (ACGSF), are positively related to the value of current agricultural output (GDP). The coefficient of (GDP-1) is 0.1604 indicating that a 10% increase in this variable leads to about 2% increase in the current agricultural GDP. Also, a 10% increase in ACGSF(-1) leads to about 4% increase in the current agricultural GDP. In addition, a one year period lag of exchange rate and interest rate were found to negatively contribute to the current agricultural GDP. This is not unconnected with the non-stability of the exchange rate which is needed for the purchase of equipment for agriculture and the high interest rate that makes borrowing difficult for farmers.

The results also show that a two year period lag (CPI -2) is positively related to agricultural GDP with a coefficient of 0.6031 indicating that a 10% increase in the variable leads to 6% increase in agricultural output. However, a two year lag period for government expenditure on agriculture (EXP -2) and (GDP -2) are negatively related to current agricultural GDP. This can be due to the non-sustainability of agricultural policies and programs such that it discourages farmers from producing more output.

It is important to note that a one year lag period for (CPI-1), (FPI-1) and a two year lag period for (ACGSF-2), (INT-2), (FPI-2), and (GEAG-2) had been eliminated in the process of model reduction due to insignificance nature of the coefficients. It can be concluded that the agricultural

credit guarantee scheme fund and the consumer price index contributed greatly to increase in agricultural GDP.

The overall goodness of fit of the model as shown by the adjusted coefficient of determination is 0.98, which shows that variation in the regressors explained about 98% variations in agricultural GDP. The F-statistics show that the model is useful in determining the contributions of monetary policy instruments to agricultural GDP as the computed F-statistics is 88.33 and is greater than the tabulated at both 1% and 5% values of 10.61 and 7.24 respectively. However, the coefficient of the ECM does not bear the negative sign but it was found to be significant and it implies that about 86% of the previous year disequilibrium in agricultural GDP is adjusted for in the following year. This also is an indication that the value of agricultural GDP is endogenously determined in Nigeriaas it is found in the work of (Iganiga and Unemhilin, 2011).

3.3. Conclusion and Recommendation

The performance of agricultural output was analyzed using government annual agricultural expenditure and some monetary policy instruments. It was discovered that the contribution of Agricultural Credit Guarantee Scheme Fund is in direct relationship with agricultural GDP. From the analysis, government annual expenditure has not contributed positively to agricultural GDP given the negative value of the lag values government expenditure on agriculture (EXP-2) and the insignificant value of (EXP-1). The high rate of interest and high exchange rate also

cumulatively affect agricultural GDP negatively.

It is therefore recommended that government should increase her budgetary allocation to this sector in a consistent manner because of its potential to diversify from the oil sector. Also, there should be proper monitoring of fund allocated to agriculture to facilitate an effective utilization of such fund. The CBN should do more to encourage borrowing by bringing the lending rate to single digit. By this, so many people who wish to invest in agricultural production will not be running to other sectors. Infrastructural facilities such as good road network, good bore- hole water and electricity should also be concentrated in the rural areas where we have bulk of our farmers. The provision of these facilities will conclusively impact positively on the rural farmers' productivity and aggregate agricultural GDP will be enhanced.

Appendix

Table. *Table of Agricultural GDP, Government Agricultural Expenditure and other Variables.*

AGR-GDP	GOV-EXP-AGR	CPI	INTEREST	FPI	EXCHANGE	ACGSF
8,313.50	486.10	8.75	6.00	120.50	0.55	30,945.0
8436	809	9.85	6	120.5	0.61	35,642.4
8227	1069.2	9.85	8	120.5	0.6729	31,763.9
7256	1214.5	10.36	8	127.8	0.7241	36,307.5
7843	284.3	10.85	10	128.5	0.7649	24,654.9
8312	1018.1	10.85	10	126	0.8938	44,243.6
9200	925.4	12.242	10	126.2	2.0206	68,417.4
9164	394.3	13.9	12.75	117.3	4.0179	102,152.5
9849	650	15.3	12.75	128.9	4.5367	118,611.0
10754	1062.6	17.85	18.5	134.8	7.3916	129,300.3
11364	2066.6	8.375	18.5	334.7	8.0378	98,494.4
11892	672.3	5.417	14.5	382.8	9.9095	82,107.4
12227	924.5	11.525	17.5	386.4	17.2984	88,031.8
11456	2835.3	12.591	26	1214.9	22.0511	80,845.8
11448	3719.1	13.758	13.5	1208.5	21.8861	103,186.0
11270	6927.7	18	13.5	1209	21.8861	164,162.1
12891	5574	23.7	13.5	1209	218861	225,502.5
13042	7929.6	26.2	13.5	1209	21.8861	242,038.2
14302	11840.4	28.3	14.31	1209	21.8861	215,697.2
14746	38259.8	30.2	18	1209	92.6934	246,082.5
15230	6596.4	32.2	13.5	1209	102.105	361,450.4
15367	15916	38.2	14.31	1209	111.943	728,545.4
15645	19521	43.3	19	1209	120.97	1,051,589.8
16735.7	28917	49.3	14.75	1209	129.357	1,164,460.4
20389	10768	56.7	15	1209	133.5	2,083,744.7
17752.8	11847	66.9	13	1209	132.147	3,046,738.5
17701	64943.9	72.4	13	1209	128.652	4,263,060.3
266477	44803.8	76.3	13.75	1209	116.3	4,425,861.8
283175	16045.2	85.1	10.95	1213	130.75	6,721,074.6
299823	59,773	95.8	15.32	1213	147.6	8,349,509.3
317281	90798.2	109.6	12.75	1357	148.67	7,740,507.6
335391	90798.2	120.7	13.88	1217	155.7	10,189,604.2
348840	102345.3	120.7	10.46	1238	155.27	10,189,604.2

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