

Ukraine Crisis 2014 – An Evaluation of the Probability of Default (PD) Estimates

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Abstract

Ukraine is facing critical phase of economic crisis ever since 2004, resulting in devaluation of its currency. The depletion of foreign currency reserves have resulted in great difficulty to repay back debts thereby leading to defaults. Capital flight leads to huge losses to Ukraine events such as increase in taxes on capital or capital holders or the government of the country defaulting on its debt that disturbs investors and causes them to lower their valuation of the assets in that country, or otherwise to lose confidence in its economic strength. At present Ukraine has a debt of \$118.7 billion, but it has got only \$13.2 billion foreign currency reserves. The country's debt of \$13 billion matured in 2015 and debt of \$16 billion this year. With current account deficit, depreciation of currency, reduction in exports and political instability in the country the Probability of Default (PD) in repaying debts is very high. The credit rating given by Standard and Poor (S&P) is revised from CCC+ to CCC which is an indicator of low servicing capability of debt i.e., the ability of country's corporate to repay debts is in question and the credit risk is very high. The USA and Europe are backing to lend further loans due to PD. Macroeconomic sustainability, strong domestic institutions and governance, Global trade and financial integration form the main policy pillars to restore confidence. Decrease in capital inflow poses main problem to repay external debt. This paper shows sector wise analysis on credit risk for the different sectors in Ukraine and the dire consequences they might face in future. Tighter liquidity standards, counter-cyclical fiscal and prudential rules are essential to build-up sufficient policy buffers. IT sector has potential to drive the GDP growth in Ukraine.

Keywords: Risk Management, Credit Risk, Probability of Default, External Commercial Borrowings, Debt, Rates, GDP.

JEL Classification: G00, O16, G3, C00, C10, C30, P00

1. Introduction

Ukraine is undergoing a critical phase of economic crisis. Its economy is worst hit thus leading to depreciation of its currency value. The foreign exchange reserves are depleting at a faster pace. The depletion of currency leads to a greater difficulty in repaying the debts to the creditors. About 70% of debts taken by Ukraine are denominated in foreign currencies, thus increasing its risk appetite. The major creditors include IMF (International Monetary Fund) (\$15billion), World Bank, Banks from Europe, Austria, Russia which include Raiffeisen International, Bank of Austria which claim to have given a combined debt of 8 Billion Euros. The debt to Russian banks namely Gazprombank, Vnesheconombank (VEB), Sberbank ,VTB Bank (Russian: OAO Банк ВТБ, former Vneshtorgbank) is one of the leading universal banks of Russia, amounts to about \$28 Billion.

The NPL (Non Performing Loans) have increased over a period of time. Ukraine is suffering from severe current account deficit. The risk factor of the creditors is increasing as the reserves of Ukraine are depleting rapidly. The immediate effect of this crisis is capital flight, which causes huge loss to economic growth of Ukraine. Events such as increase in taxes on capital or capital holders or the government of the country defaulting on its debt disturbs investors and causes them to lower their valuation of the assets in that country, or otherwise to lose confidence in its economic strength. The current debt of Ukraine amounts to about \$80 billion, but its foreign reserves account to \$12 billion only; this indicates the Ukraine's present economic status. The country's debt of \$13 billion matures this year and debt of \$16 billion next year. With current account deficit, depreciation of currency, reduction in exports and political instability in the country the Probability of Default (PD) in repaying debts is very high. The credit rating given by Standard and Poor (S&P) is revised from CCC+ to CCC which is an indicator of low servicing capability of debt i.e., the ability of country's corporate to repay debts is a grave issue thereby leading to higher credit risk .

Figure-1 shows the how much does Ukraine owe to IMF since few decades.

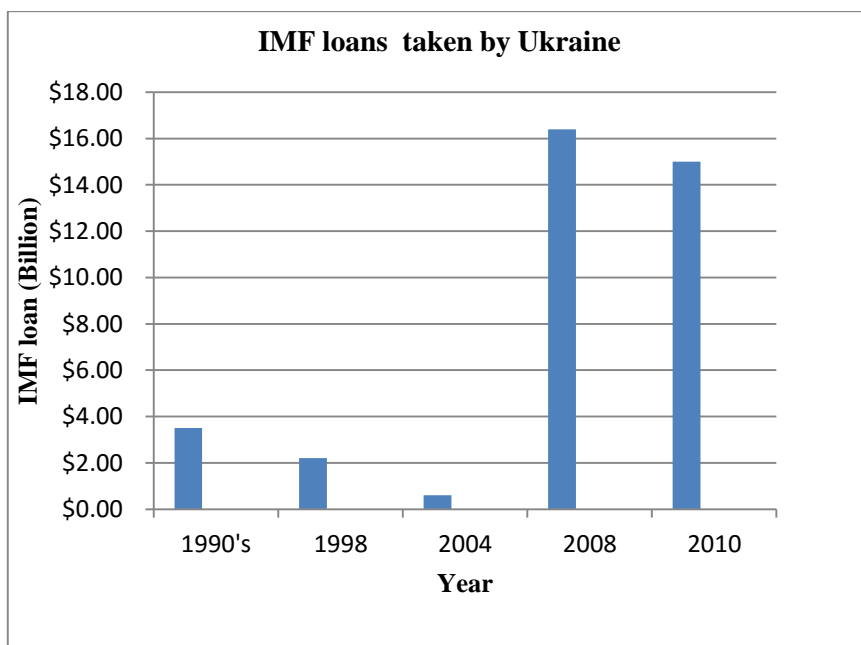


Figure 1. Trends of IMF Loan to Ukraine

The economy was good in the year 2004 but from 2008 the amount of loan from International Monetary Fund has increased significantly.

The following figure-2 shows the current account deficit of Ukraine, which improved in 2015 and again started to drop in early 2016, implies liquid capital is decreasing.



Figure 2. Current account deficit of Ukraine

1.1. Objectives of Study

- (1) To study the past 10 -12 year's data from 2000 to 2015, which is the period of the study and observe the main reasons for rapid decline of the Ukrainian currency.
- (2) To analyze the risk profile involved for both the Ukrainian government as well as the creditors by finding the PD, taking into account the stakeholders interests.
- (3) To suggest remedial measures so as to overcome the present economic conditions.

1.2. Research Hypothesis

In this paper for the purpose of this study has considered various sectors like agriculture, manufacturing, industry, imports and exports that contribute to the Nations' GDP. This paper has also considered debt related issues like annual savings, gross savings, lending rates, short term reserves, multilateral debt, domestic credit by the banking sector, private sector lending etc. Mean, standard deviation and other mathematical techniques and statistical tools have been used to analyze the risk profile for each sector under the scope of the study.

The USA and Europe are backing to lend further loans due to PD. This paper analyzes the risk profile in each sector that contributes to the overall GDP.

RQ1 (Research Question1): Why is Ukraine experiencing its Current Credit Scenario?

RQ2 (Research Question2): Can Ukraine come out of the current credit crisis or would it be facing a much more severe crisis in the near future?

RQ3 (Research question3): How can Ukraine handle the situation?

1.3. Significance of Study

This study helps to determine the factors that lead to prevailing economic status of Ukraine as Ukraine's need of the hour is to come out of the current situation and also restrain itself from falling into the debt trap again in the near future. The study is to analyze as to how each and every sector had its impact with the dynamic needs of the economy and thereby impacting the society at large.

1.4. Scope of Study

The scope of the study is only limited to Ukraine. The period of the study is from 2000-2015. The data has been collected from the website of the World Bank. There are many factors influencing GDP growth rate and are similar but each factor's value changes accordingly with the country's economic developments and downturns. This paper has chosen only those determinants which have a direct impact on the GDP growth rate [1]. Impact of factors like political instability, internal unrest and other factors which influence the economic situation could not be quantified.

2. Literature Review

Numerous studies were conducted on risk management aspects in the USA, UK and India. A more object oriented systematic risk management process developed an interest to investigate issues such as: whether customized systematic risk management procedures lead to better profitability. Studies found that mere adoption of systematic risk management techniques increase the performance and profitability of the corporate [2]. Given the mixed results over these years, this study seeks to provide further evidence on the degree of systematic risk management mitigation and profitability of default in Ukraine.

According to [3], modern economy states a distinction between the surplus unit and the deficit unit in economy and consequently a separation of the savings – investments mechanism. This led to the existence of Financial Institutions whose primary responsibility includes the transfer of funds from saving sources to investment avenues. Such type of institution is the money deposits' scheme of banks, wherein the intermediating roles of the money-deposit banks places them in a position of "trustee" of the savings of the widely dispersed surplus economic units as well as the determinant of the rate and the shape of economic development. The techniques employed by banks in this intermediary function should provide them with perfect knowledge of the outcomes of lending such that funds will be allocated to investments in which the probability of full payment is certain.

But unarguably, financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counter parties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counter parties. This experience is common in both G-10 and non G-10 countries.

Credit risk is one of great concern to most authorities and banking regulators. This is because credit risk is those risks that can easily and most likely prompt bank failure. Therefore, credit risk [4] management needs to be a robust process that enables Financial Institutions to proactively manage facility portfolios in order to minimize losses and earn an acceptable level of return for shareholders [5].

Credit risk management is a structured approach to managing uncertainties through risk assessment, developing strategies to manage it, and mitigation of risk using managerial resources [6]. The strategies include transferring to another party, avoiding the risk, reducing the consequences of a particular risk. The objective of risk management is to reduce the effects of different kinds of risks.

3. Research Methodology

Research Gaps: The study is restricted to only the authenticated data available from 2000-2015. Forecasted data is beyond the scope of the study. The current study relies on the standard World Bank reports.

Data Collection: Only secondary data has been used for the current study.

Period of Study & Limitation of the Study: The period of the Study is from 2000-2015.

Secondary Data: Secondary sources like research journals, news paper articles and other periodicals pertaining to the study are referred. This paper focused on secondary data collected from authenticated sites of the World Bank, IMF etc.

Data Analysis and Data Variables: Variables are considered to analyze data. The variables taken are different sectors which effect GDP like agriculture, manufacturing, imports, exports, industries etc. Variables which effect debt are principle repayment on external debts, IMF, lending rate, inflation etc. all of these affect the economic condition of country directly or indirectly.

Sampling Size: The samples for analysis are various indicators within the time period 2001-2015. As we need to compare impact of these variables in the preceding years, ten indicators regarding debt and ten indicators pertaining to GDP are considered.

Statistical Tools and Techniques Used: Mean, variance, standard deviation have been used. Mean= Sum of data values / No. of observations.

Mean

Sample Mean	Population Mean
$\bar{x} = \frac{\sum X}{n}$	$\mu = \frac{\sum X}{N}$

where $\sum X$ is sum of all data values

N is number of data items in population

n is number of data items in sample

Variance

$$\sigma^2 = \frac{\sum (X - \mu)^2}{N} \quad (1)$$

$$= \frac{\sum (X^2 - 2\mu X + \mu^2)}{N} \quad (2)$$

$$= \frac{\sum X^2}{N} - \frac{2\mu \sum X}{N} + \frac{N\mu^2}{N} \quad (3)$$

$$= \frac{\sum X^2}{N} - 2\mu^2 + \mu^2 \quad (4)$$

$$= \frac{\sum X^2}{N} - \mu^2 \quad (5)$$

Standard Deviation SD = $\sigma = \sqrt{\text{Variance}}$

4. Data Analysis

4.1. Gross Savings

Gross savings are calculated as gross national income less total consumption, plus net transfers [1]. Gross savings declined very rapidly. The gross saving as % of GDP started to decline from 2010 to 2013 and started to improve in 2014.

With no savings and depreciating currency value, it is very difficult to repay the country's debt that matures this year and for preceding year. As shown in figure-3, the gross savings is supposed to be all time low in year 2013 (7.25%), whereas 2004 accounted for maximum savings (31.38%), it implies that as savings are low expenses are high, income is low, the country will face the difficulties if this process continues as when saving are low, spending are high it may lead to inflation. This is not recommended for the country in its present situation.

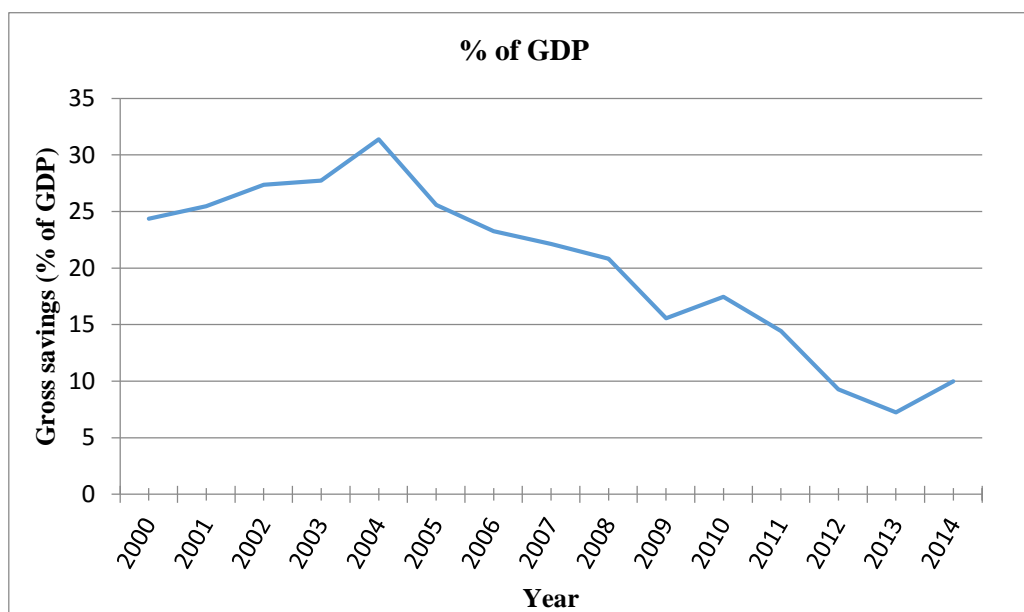


Figure 3. Trend of Gross savings as % of GDP

4.2. Services Value Added

Value added is the net output of a sector after integration of all outputs minus inputs. As shown in figure-4, there was a huge decline in services in year 2005, from 10.77% (2004) to -0.35% (2005) in later stage the services had a slight growth but in 2009 there was a massive fall in services growth rate it came to as low as -14.92% then again rose in year 2010, similarly has a dip in 2011 but in 2012 there was a slight growth in this sector. But started to decline from 2012 till 2015.

4.3 Services, Value Added

Service sector is the most fairing arm of the country's economy today. It includes telecommunications services, banking and so on. As shown in figure-5, the service sector had contributed widely to GDP even though its growth rate is less. There is 30% rise in contribution of services towards services. The services amounted to around 46.6% in 2000 where in 2014 the services sector contributed to around 62.8%. This shows the service sector is playing an important role in contributing to GDP of Ukraine.

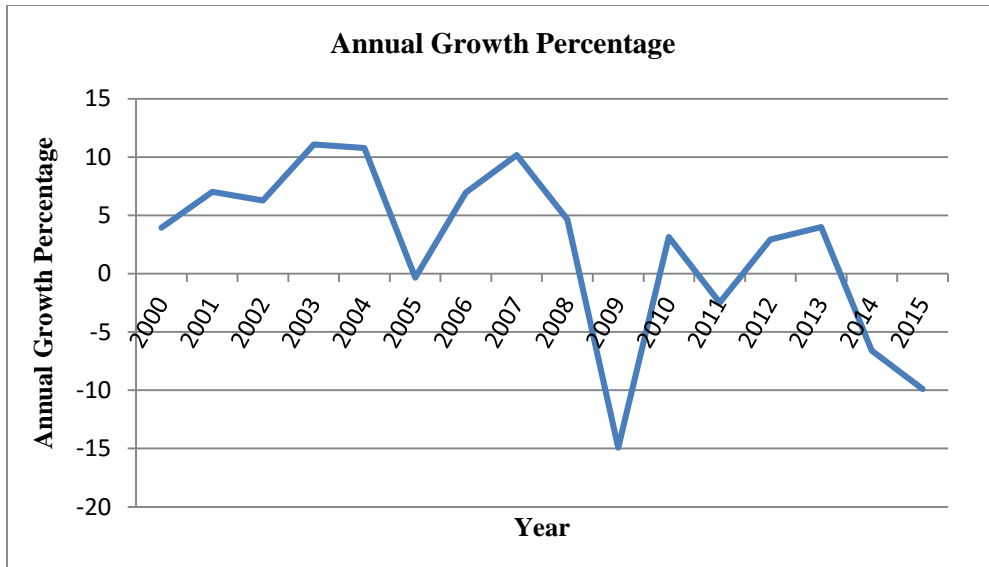


Figure 4. Annual Growth Percentage

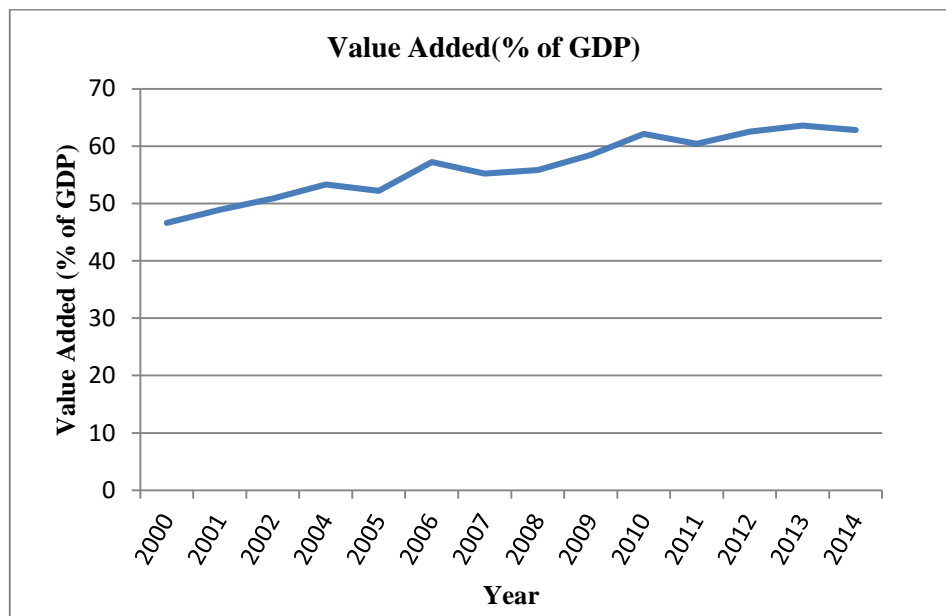


Figure 5. Trend of value addition by services (% of GDP)

4.4 Imports of goods and services

Ukraine imported almost 23.3% from Russia in 2014 [6].As shown in figure-6, the imports were initially high in 2000(57.41%), in the later stage there was a slight dip giving rise to up's and down's over the past decade. At last 2012 seems to have recorded the highest percentage i.e. (60.58%) later there was a slight decline to 59.3% in 2013 and 53.2% in 2014. Imports should be less; exports should be more for better economic status of Ukraine.

4.5 Exports of goods and services

Ukraine economy boomed between 2000 and2008 mainly due to its exports. As shown in figure-7, the exports of Ukraine was all time high in year 2000 (62.44%) later onwards it started to decline and again rose in 2004 (61.21%) there onwards it started to raise and fall at last came to 50.91% in 2012.

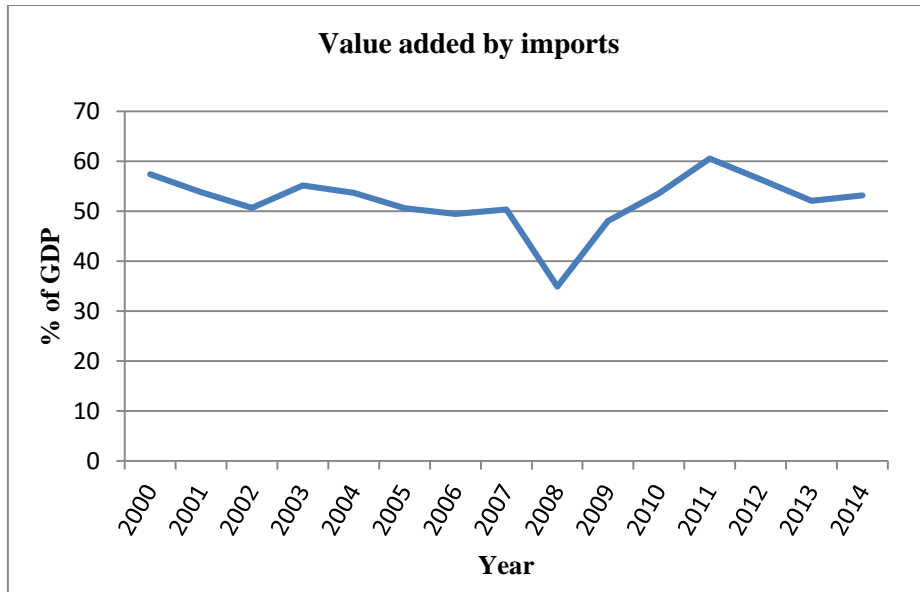


Figure 6. Trend of value added by Imports (% of GDP)



Figure 7. Trend of value added by Exports (% of GDP)

4.6 Industry, Value Added

Main industries are of coal, machinery and transport equipment, food processing, electric power and so on [1]. As can be seen from figure-8, the industry contributed constantly at around average of 34% for around a decade from 2000, but in year 2009 it fell to about 29.6% there on had a minute rise and fall at the end of 2012 (29.81%). The contribution of is less as compared to service sector. But industry maintained its share without many deviations.

4.7 Manufacturing Value added

After services sector, manufacturing sector is a major sector for economic growth [7]. As shown in figure-9, there are abnormal fluctuations in growth rate of manufacturing sector with as high as 18.2% growth rate in 2003 to as low as -20.9% in 2009 further it increased to 14.5% in 2010 and came down to -3.5% in 2012. This shows the instability of this sector.

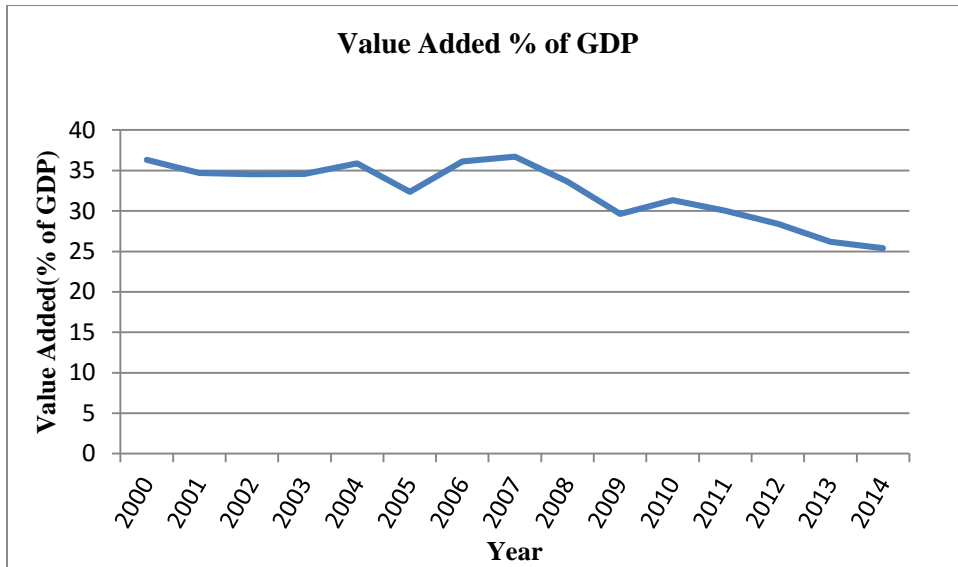


Figure 8. Trend of value added by Industry (% of GDP)

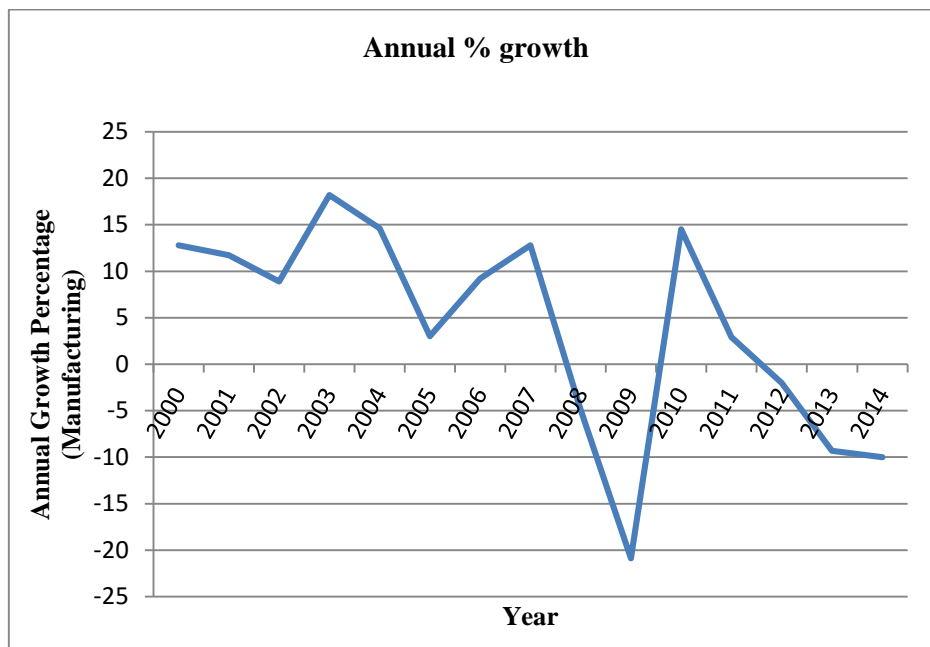


Figure 9. Trend of value added by manufacturing (% of Growth)

4.8 Manufacturing, Value Added

Even though manufacturing sector had an uneven growth rate but its contribution towards GDP remained better. As shown in figure-10, 2006, 2007 accounted for maximum share of 23.07% than the preceding years. There had been a slight increase till 2006-7 then slight decline thereafter. It accounted for 14.9% in 2012.

4.9 Agriculture Value Addition

Agriculture sector showed a positive effect initially later it showed a decline and tried to remain constant by the end. As shown in figure-11, 2000 accounted for maximum share of 17.08% than the preceding years. Till 2009 there had been a decline in manufacturing (% of GDP) later it started lightly coping up and remained constant at 9.3 % in 2012 and started moving up till 11% in 2014.

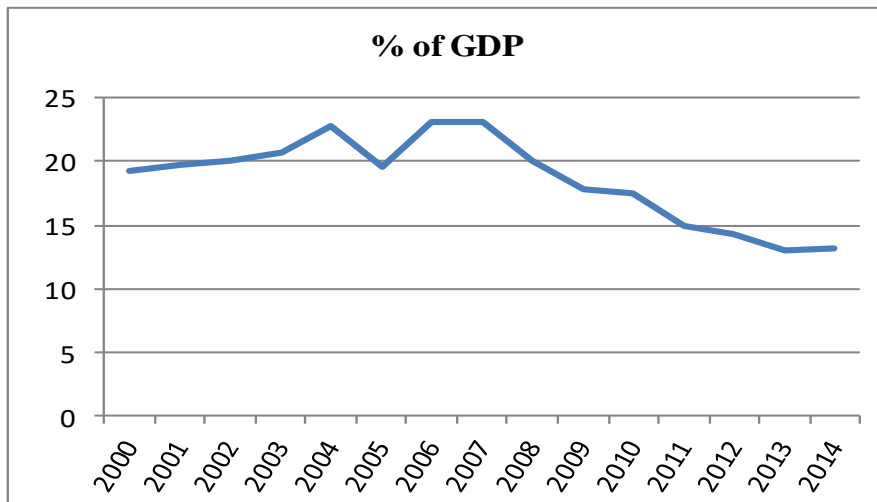


Figure 10. Trend of value added by manufacturing (% of GDP)

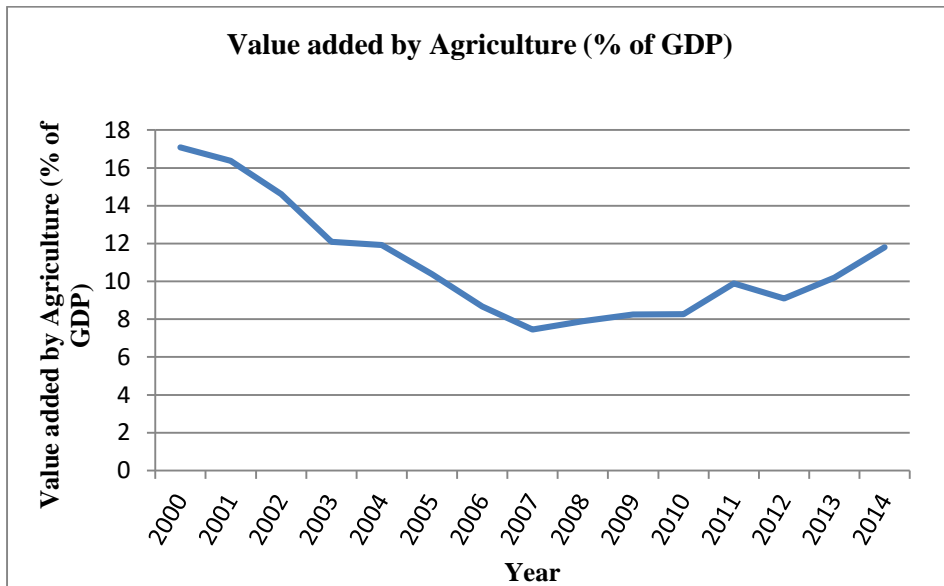


Figure 11.Trend of value added by Agriculture (% of GDP)

4.10 FDI Net Outflow

Foreign direct investments (FDI) are the equity flows invested directly in the economy. As shown in figure-12, the contribution of FDI was negative in the year 2006, however in the consequent years it showed some volatility but in year 2012 it accounted for 0.684% which is supposed to be all time high since 8 years.

4.11 Inflation, Consumer Prices

The inflation should be as less as possible to tighten the money flow. Inflation occurs when money circulation is high, since people will not back, to buy any product with any amount. As shown in figure-13, the year 2002 faced high inflation, means the rates of commodities hit the sky. Similarly there was a huge fall in 2003, again since then the inflation rates rose in 2008 and then fell down to all time low in 2012(0.55%) this implies no money flow in society and further decrease may lead to recession. The inflation is 12.2% in 2014.

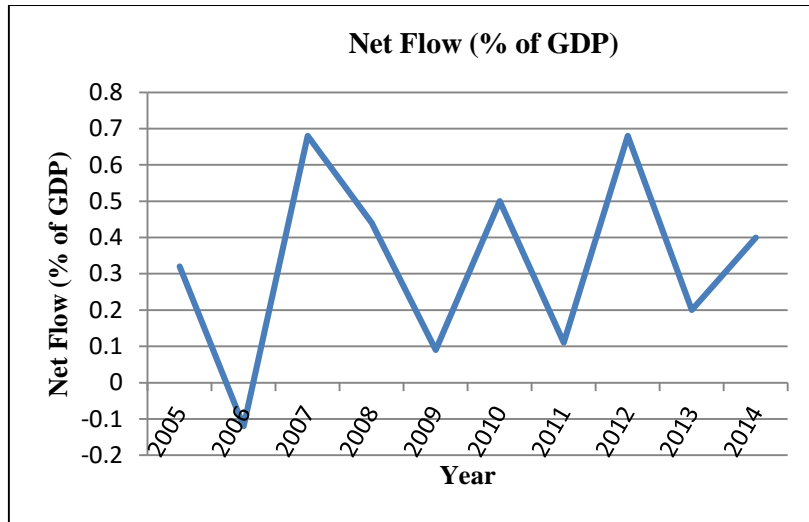


Figure 12. Trend of FDI Net Outflow (% of GDP)

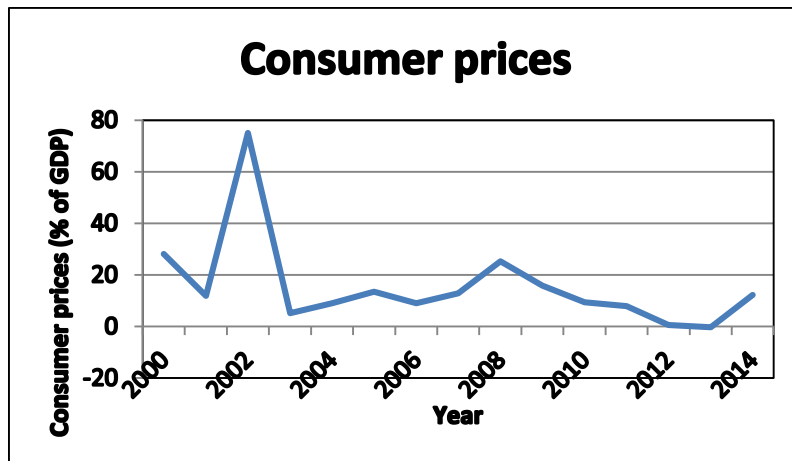


Figure 13. Trend of consumer prices (% GDP)

4.12 Principle Repayment on External debt, PPG

The principle repayment on External debt, Public and Publicly Guaranteed (PPG) is the amount to be paid towards the debt. As shown in figure-14, this was maximum in year 2011 which accounted for \$2835.7mn then declined a little. The total external debt amounts to about \$137722mn as on 30/9/2013. The forecasted value is about \$138508mn in 2014.

4.13 Exports

Major exports include ferrous and nonferrous metals, chemicals, petroleum products, food products mainly food grains and so on. As shown in figure-15, exports have decreased rapidly from 2004 to 2007 and slowly increased from the year 2007 to 2011 and again decreased, this volatility occurred due to political instability and economic conditions. If this trend continues, the source of foreign currency shrinks and current account deficit increases, which is not good for the economy.

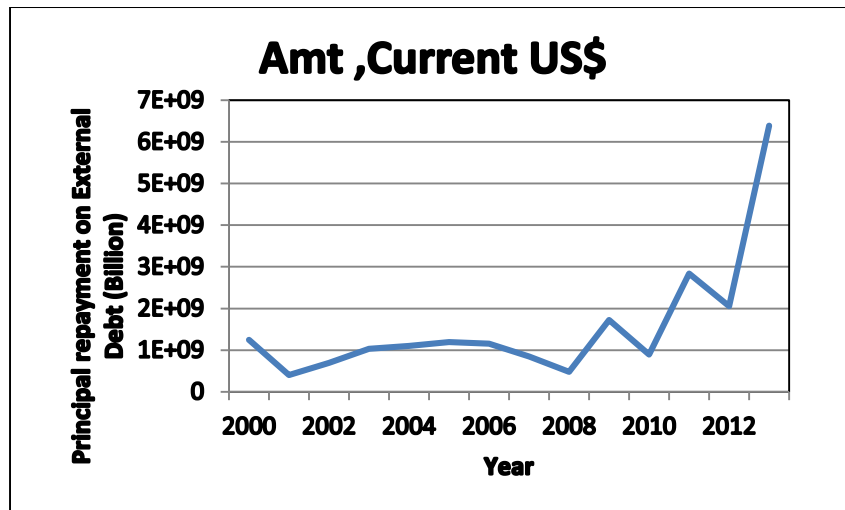


Figure 14. Trend of principle repayment (US\$)

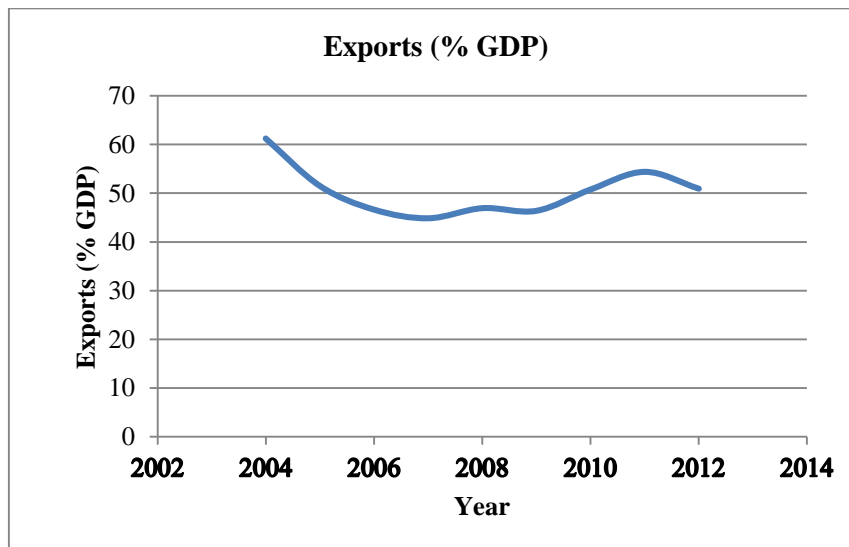


Figure 15. Trend of exports (% of GDP)

4.14 Domestic Savings

As gross savings decrease so as domestic savings. This decline shows the liquidity [8] control within the country. As shown in figure-16, there is a positive growth from 2013 which is a good sign.

4.15 Current Account Balance

Current account balance is an indicator of a country's economic health. It includes aggregate value of all goods and services, net income from abroad, net current transfers. The Figure-17 shows the current account balance which decreased rapidly in the initial years from 2004-2007. Later from 2007 till 2009 there was some improvement due to increase in foreign reserves. From 2009 onwards there was complete dip in the Current Account Balance due to capital flight. In fact the balance was negative that is less than the minimum required after the year 2004. From the last two year the current account balance started to move in positive direction.

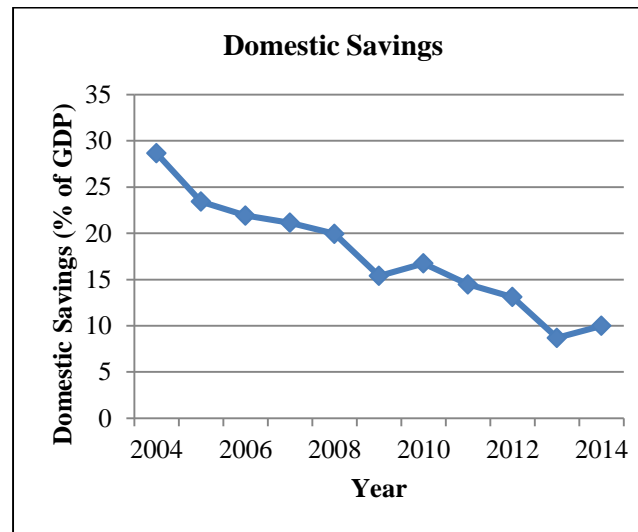


Figure 16. Trend of domestic savings (% of GDP)

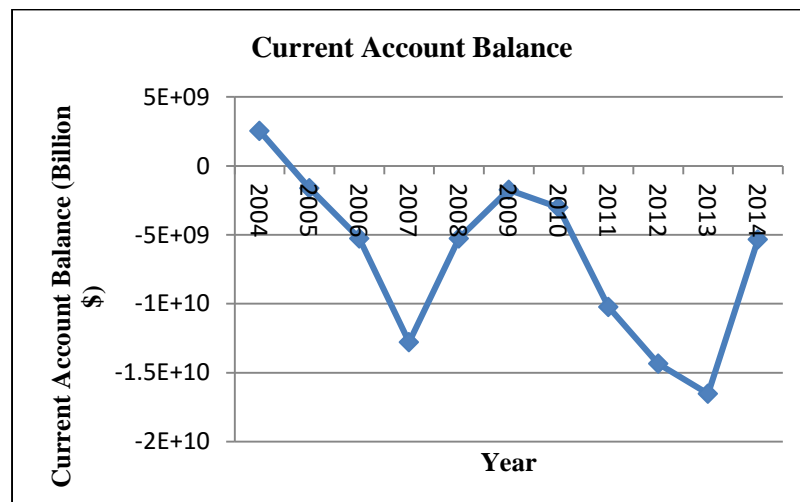


Figure 17. Trend of Current Account Balance (in US \$)

4.16 Total Reserves

Total reserves consists of holdings of monetary gold, foreign exchange, special drawing rights (SDRs). The figure-18 shows that the total reserves declined from 2005 till date with little ups in the journey. That is the reserves were eaten up due to increase in imports and decline in exports. As a result, this also led to current account deficit by decreasing current account balance.

4.17 Lending Rate (Growth Rate)

As currency reserves were exhausted the source of raising currency was through increasing lending rates. As soon as current account balance started to decline, the lending rates increased rapidly to counter the effect. This can be seen form the figure-19.

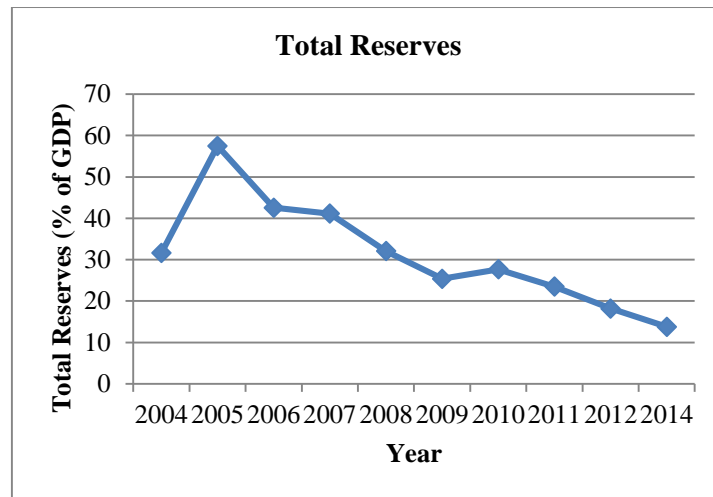


Figure 18. Trend of total reserves (% of GDP)

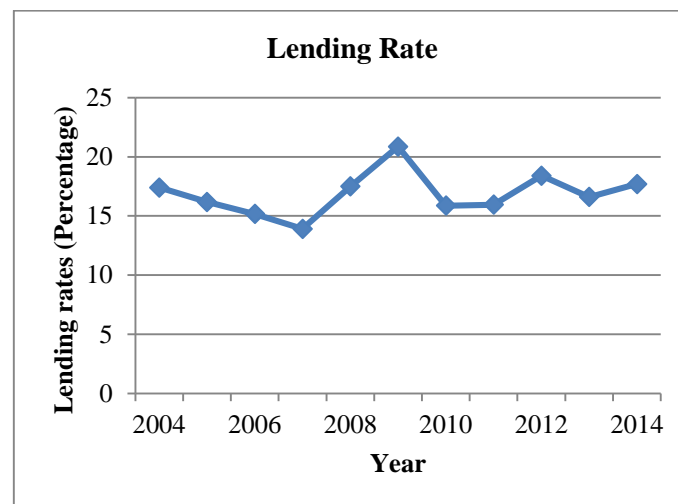


Figure 19. Trend of lending rates (Growth Rate)

4.18 Short term Debt (% of External Debt)

With no reserves, less savings, less current account balance, debt was inevitable and hence short term debts were a way out but these have to be repaid early. This is ripple effect of exports, imports, savings and also political stability. This is clearly evident in the figure-20.

4.19 Multilateral Debt (% of External Debt)

Multilateral debt is a part of a country's external debt owed to international financial institutes like IMF, World Bank. This is similar to short term debt and employment of multilateral debt to support imports was needed. As shown in figure-21, the percentage of this in the total external debt increased from 4% in 2009 in 10% in 2012 but decreased from 2012 to 7.3% in 2013.



Figure 20. Trend of short term debt (% of External Debt)

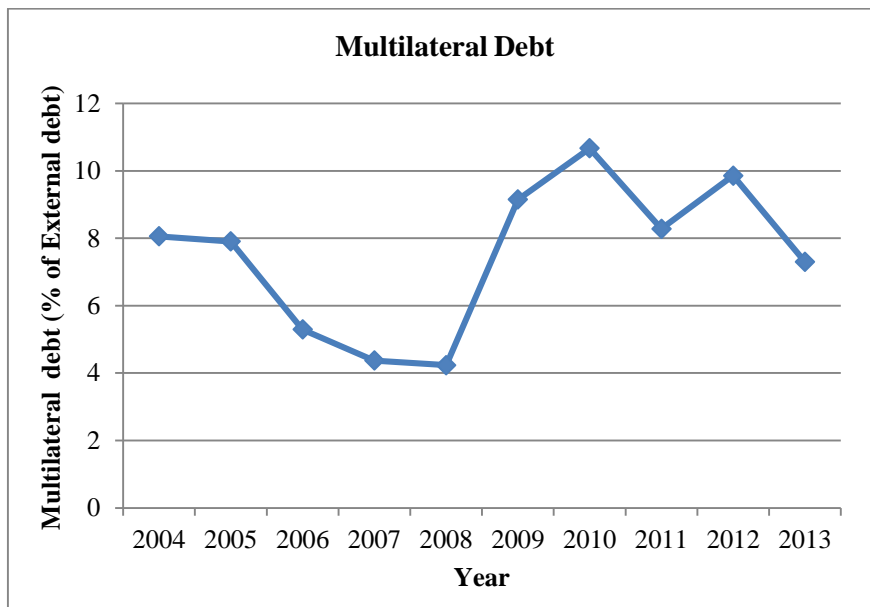


Figure 21. Trend of multilateral debt (% of External Debt)

Source: Compiled by the Researcher

4.20. Domestic Credit

Domestic credit is providing financial resources to the private sector by banks through loans, non-equity securities, trade credits which establish a claim for repayment [1]. As shown in figure-22, domestic credit given by bank sector increased due to inflation which had a rapid increase till 2010 and later declined. Thus domestic credit also increased till 2010 and after which it started to stabilize.

4.21. Domestic Credit to Private Sector

This is same as the domestic credit by banking sector. As the figure-23 suggests, the credit given increased followed by increase in the credit taken by private sector. But this

stabilized early at 2008 and slowly declined from 2010 as inflation also declined and started to increase steadily after 2012. The values shown are represented as percentage of GDP.

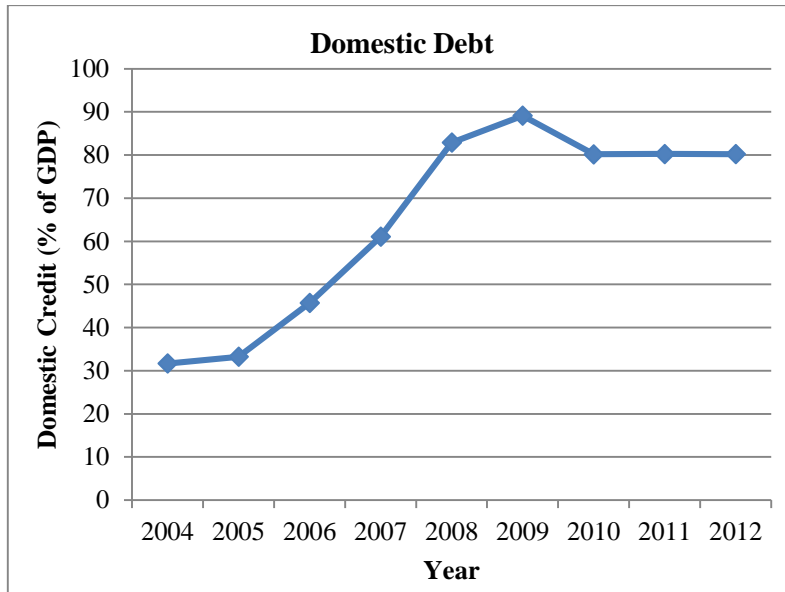


Figure 22. Trend of domestic credit (% of GDP)

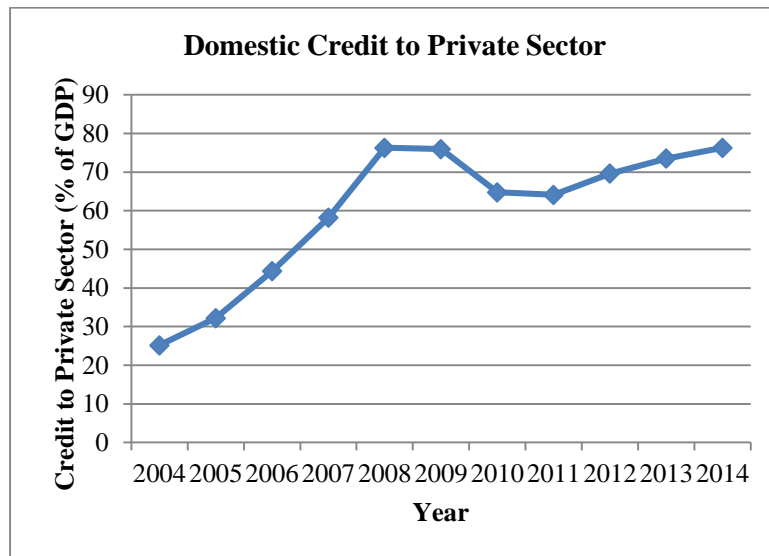


Figure 23. Trend of domestic credit to private sector (% of GDP)

4.22. GDP Growth Rate

The GDP growth rate is always in decreasing trend. The grain exports were mainly major contributor to GDP also manufacturing and servicing sectors contributed more. But still GDP declined as inflation kicked in and imports increased rapidly. The political unrest is also a major factor. This is evident in the figure-24. With present scenario, if measures are not taken, GDP growth rate declines further.

Table 1& Table 2 show the risk associated with each indicator through standard deviation.

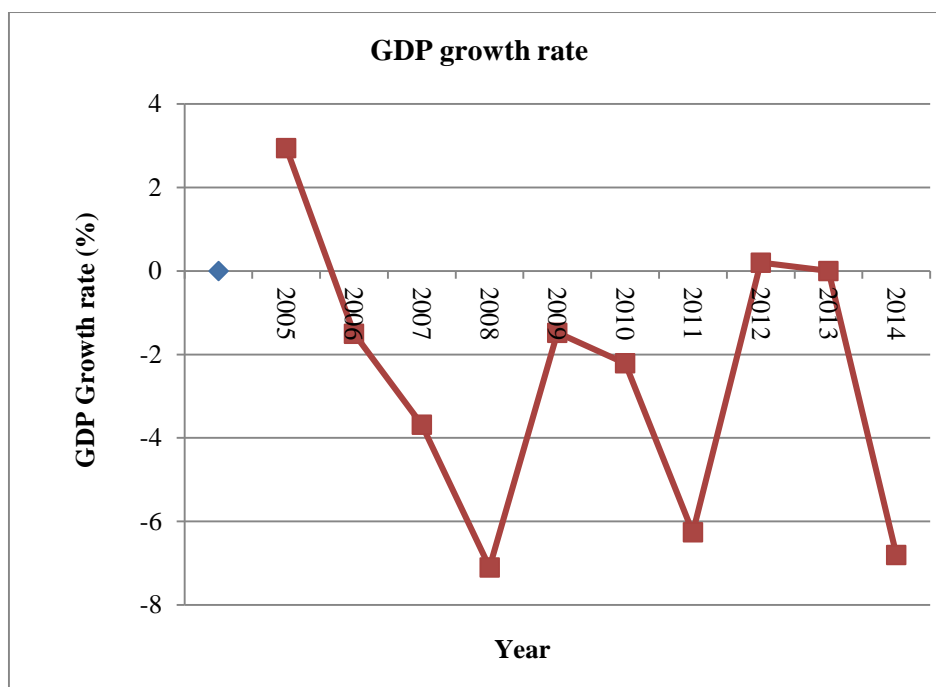


Figure 24. Trend of GDP growth rate

Table 1. Mean and Standard Deviation of Debt Indicators

S No.	Indicator	Mean	Standard Deviation	Variance
1	Gross domestic savings (% of GDP)	18.9944222	5.37387154	28.8785
2	Gross savings (% of GDP)	19.99134	6.22619056	38.76545
3	Current account balance (BoP, current US\$)	-5859875000	5705788386	3.26E+19
4	Total reserves (% of total external debt)	33.2984307	11.3332991	128.4437
5	Lending interest rate (%)	16.8008213	1.9133476	3.660899
6	Foreign direct investment, net outflows (% of GDP)	0.34108032	0.27337582	0.074734
7	Short-term debt (% of total external debt)	26.6466889	5.47757255	30.0038
8	Multilateral debt (% of total external debt)	7.53572222	2.22887985	4.967905
9	Domestic credit provided by banking sector (% of GDP)	64.9189211	21.3527755	455.941
10	Domestic credit to private sector (% of GDP)	55.8940507	17.148174	294.0599

As we can see from the table 1 that the deviation is very high for gross savings, current account balance, total reserves, credit by banking sector, and also short term debt indicators. The deviation is very low for other indicators. Low deviation indicates less chance of variation where as high deviation indicates that it varies highly with conditions and high risk is associated with it. But foreign direct investments are already low with low mean and deviation also being very low; their probability of increase in future is also low.

Table 2. Mean and Standard Deviation of Sector Indicators (% of GDP)

S No.	Indicator	Mean	Standard Deviation	Variance
1	Exports of goods and services (% of GDP)	50.3877011	4.80292063	23.06805
2	Imports of goods and services (% of GDP)	53.3978027	4.07849106	16.63409
3	Agriculture, value added (% of GDP)	9.11595768	1.33413993	1.779929
4	Industry, value added (% of GDP)	32.8328598	2.70137257	7.297414
5	Manufacturing, value added (annual % growth)	3.07777778	10.9398129	119.6795
6	Manufacturing, value added (% of GDP)	19.3008782	3.0884596	9.538583
7	Services, etc., value added (annual % growth)	2.32234479	7.37068819	54.32704
8	Services, etc., value added (% of GDP)	58.0511825	3.03287	9.1983
9	Health expenditure, private (% of GDP)	2.93099234	0.42309604	0.17901
10	Health expenditure, public (% of GDP)	3.96926017	0.23336509	0.054459

Valued added through exports imports, services and manufacturing sector have high standard deviation with some degree of risk of variation where as other have very low deviation thus mitigating the risk factor. The contribution of these indicators to the growth of the economy by increasing the GDP of the country is very essential and hence low deviation is desirable.

5. Probability of Default

The probability of default (PD) increases with increase in deviation and variance. PD is a function of three main factors. One being the loss incurred on default of payment. This factor can be estimated using the mean, using this standard deviation can be calculated. Standard Deviation signifies the risk involved in default of debt. Higher the deviation from mean, the higher the risk factor of default.

As we can see from Table.1 standard deviation is high for banking sector that is 11% which indicates the probability of default (PD) is high for this sector.

In Table.2, Imports are very high and exports are also very high. For stable economy, imports should be decreased and exports are to be increased. This also helps in countering the current account deficit thereby facilitating repayment of debt and reducing the probability of default.

Overall, low GDP growth, high debt, high expenses is leading to collapse of Ukraine till 2013 end.

6. Recent Developments

Ukraine's forex reserves depleted to around \$12.6 billion in September 2015 from \$36 Billion in 2011, according to the IMF and the National Bank of Ukraine. In the month of august, Ukraine's reserves have increased by \$2.2 billion. The main reason for increase in the international reserves was also due to the allocation of \$508.1 million by the International

Bank for Reconstruction and Development and the European Commission to the Government of Ukraine. The government initiative from the proceeds of swap transaction and CNY/USD conversion resulted in increase of reserves by \$403.3 million. In the month of August, the debt service payments on external sovereign bonds and government securities totaled to \$ 69.9 million and debt payments due to the IMF summed up to \$49.5 million.

6.1. Current Ukraine Debt

The public debt of Ukraine amounted to around \$93 billion in 2014 with an increase of \$20 billion from 2013 which reached 71.21% of Ukraine GDP. The Ukraine per capita debt in 2013 was \$1701 which increased by \$350 in 2014 to \$2,051 per resident.

Table 3. Debt Per Capita

	Millions \$	% GDP	\$ Per Capita
2014	93,002	71.21%	2,051
2013	72,997	40.65%	1,701
2012	65,923	37.54%	1,454
2011	60,192	36.84%	1,324
2010	55,206	40.63%	1,212
2009	41,534	34.12%	906
2008	36,988	19.66%	805
2007	17,572	11.82%	380
2006	15,950	14.26%	343
2005	15,236	17.09%	326
2004	16,065	23.89%	341
2003	14,723	28.30%	310
2002	14,235	32.34%	297
2001	13,891	35.34%	288
2000	14,151	43.79%	288
1999	19,257	58.96%	389
1998	20,157	46.54%	403
1997	14,986	28.89%	297

6.2. IMF Bailout Program

In February 2015, IMF came to the rescue of Ukraine by providing an aid package of \$17.5 Billion to meet its debt obligations. The conditions for bailout by IMF are to stop energy subsidiaries and also restructure its economy. As a result the inflation levels shoot up to 30% in the beginning of 2015, increasing the gas and water prices by 35%. Apart from above there are 3 other conditions namely:

- The debt repayment should be reduced in any year to not more than 10% of GDP by 2019-25.
- The government in capital of Ukraine, Kiev will write off % 15.3 billion in debt and interest by 2018.
- The government should reduce its public debt-to-GDP ratio to 70% of GDP by 2020.

The total aid package of \$40 Billion was contributed by EU, International financial institutions like EBRD, World Bank, Bilateral creditors. The crisis in Ukraine indirectly effects the EU apart from the Greece crisis.

As per MR. Arseniy Yatsenyuk, the prime minister of Ukraine, they managed to receive consent of creditors to get haircut of twenty-percent on \$18 billion debt, who include Franklin Templeton, a global investment firm that owns about \$9 billion of the country's bonds, namely \$3.6 billion, and also write-off of percent of \$5.3 billion and a delay of payment of a body of a debt for the sum of 11 billion dollars for 4 years.

6.3. Major Sign of Relief

The Verkhovna Rada, Ukraine parliament has voted in favour of \$18 billion debt restructuring despite having fear of getting votes against restructuring, which would have affected Ukraine to lose international creditors and get tagged as "de facto default" pushing the country into financial crisis.

The good signs of voting in favour of debt restricting are mainly strengthening the economic reforms by raising the pensions and salaries of brassic (poor) citizens by 13-19% in order to mitigate the soaring inflation and recover from second year of economic recession.

A failed vote must have costed the entire \$40 Billion bailout aid package headed by the IMF just cold war between Russian backed separatists and government forces in the east of the country. Now the major concern for Ukraine is to clear \$3 Billion debt owed to Russia by end of this year. Russia is one of the countries which didn't support the debt restricting and didn't even take part in negotiation meetings which took place between Ukraine and creditors.

7. Conclusions

Macroeconomic sustainability, strong domestic institutions and governance, Global trade and financial integration form the main policy pillars to restore confidence. Decrease in capital inflow [9] poses main problem to repay external debt. They are macroeconomic policy measures and prudential measures. As macroeconomic policy measure, a tighter monetary policy like increasing interest rates, policies for fiscal stabilization, FOREX intervention to create FOREX reserve buffers can be taken. To increase capital inflows, depreciation of currency is a good step that is allowing exchange rate depreciation. Structural and financial market reforms can be taken. The government and national bank of Ukraine can meet the debt obligations and current operations with the present international reserves held by Ukraine. The principle values of \$18 billion debt came down by 20% that is \$3.6 billion with 4 year extension and 7.75% coupon rate. The 20% haircut on \$18 billion given by creditors is a win-win situation for war-torn country, Ukraine without keeping bonds on a further risk. Prudential measures include increasing capital inflows by easing capital inflow regulations, temporary restrictions on capital outflow, limiting on bank's open FOREX position are possible measures. Tighter liquidity standards, counter-cyclical fiscal and prudential rules are essential to build-up sufficient policy buffers. IT sector has potential to drive the GDP growth in Ukraine. Ukraine being one of the largest producers and exporter of grains, it should increase its exports to increase its foreign reserves.

What policy and of which degree depends on the country and its specific factors. Political stability also plays an important role in maintaining economic conditions and stability in the country. With present situation in Ukraine, it is important for the country to have a stable government so that it can revive its position fast.

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