

# Significance of cic in an economy economics essay

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## **2. 0 Introduction**

The main purpose of this chapter is to study existing literatures on modelling and forecasting Currency in Circulation (CIC). An important function of the Central Bank is to ensure a smooth and efficient supply of banknotes and coins to meet public demand, which is dependent on the level of economic activity, calendar anomalies, and the improvement in the alternative means of payment. Moreover, a cointegration analysis is used to study the relationship between CIC and Gross Domestic Product (GDP). This chapter is structured as follows: section 2. 1 deals with theories based on CIC, monetary base, significance of CIC, importance of forecasting banknotes and changes in the total amount of banknotes in circulation. The next section involves the calendar effect. Section 2. 3 explains the findings and models used by other researchers for forecasting CIC and the relationship between CIC and GDP. Then section 2. 4 relates the summary of the literature review.

## **2. 1 Theoretical Literature**

### **2. 1. 1 Currency in Circulation**

The Bank of Mauritius (BOM) is the central bank of the country and as the sole currency issuing authority in Mauritius; BOM is responsible for issuing currency to the financial institutions under its supervision when they need it. When financial institutions have more currency than is needed, they send it back to the BOM. The BOM is also responsible to regulate the banking and credit system so as to ensure a proper circulation of credit and a sound financial structure. The BOM Act 2004 specifies that " The primary object of the Bank shall be to maintain price stability and to promote orderly and balanced economic development". The BOM must devise and implement a <https://assignbuster.com/significance-of-cic-in-an-economy-economics-essay/>

number of measures affecting the supply of reserve money, the money supply and the level of interest rates in the economy to accomplish its objective of preserving price stability. CIC is defined as the total amount of banknotes and coins in circulation outside the central bank. The CIC includes all banknotes in domestic currency that the economic agents that is households, companies and non-residents demand for a particular moment for transaction or as a store of value. The circulation of banknotes and coins to the non-banking sector is mainly carried out by commercial banks.

## **2. 1. 2 Monetary base**

The monetary base consists of currency outside banks plus reserves balances (deposits held by banks and other depository institutions in their accounts at the Central Bank).

### **Components of Monetary base**

Monetary base = Reserve Money + CIC

### **Central Bank Balance sheet**

#### **Assets**

#### **Liabilities**

Government securities  
CIC  
Discount loans  
Reserves  
The two liabilities on the balance sheet, CIC and reserves, are often referred to as the monetary liabilities. They are an important part of money supply because increases in either of them would lead to an increase in the money supply (everything else being constant). The sum of CIC and reserve is the monetary base. CIC: It refers to the currency that the Central Bank is issuing and the amount of currency in the hands of the public (outside of banks) and it is an important

component of the money supply. Reserves: All banks have an account with the Central Bank. The reserve consists of deposits at the central bank and currency held by commercial banks. Reserves are assets for the banks but liabilities for the Central Bank, because the banks can demand banknotes at any time and the Central bank is obliged to satisfy its obligation. An increase in reserves leads to an increase in the level of deposits and hence in the money supply. The volume of monetary base is controlled by the central bank Open Market Operations (OMO). OMO are the principal instrument of monetary policy, consisting of the purchase and sale of Government securities by the central bank. It is the primary determinant of changes in reserves in the banking system. An open market purchase of government security will lead to an expansion of reserves and deposits in the banking system and therefore lead to an expansion of the monetary base and the money supply, while an open market sale of government security will lead to a contraction of reserves and deposits in the banking system and hence to a decline in the monetary base and the money supply. In Less Developed Countries (LDCs), central bank will adopt an expansionary monetary policy and as a result an expansion of the money supply. This will lead to a decline in real interest rate to encourage borrowing by businesses hence raising investment and boost economic activities in LDCs. A change in the monetary base is due to the intervention of Central Bank in the foreign exchange market, that is the Central Bank either buys or sells foreign currency called international reserve. If the Central Bank decides to sell its foreign currency in exchange for domestic currency this has two effects: It reduces the Central Bank holding of international reserves. Because its purchase of currency removes it from the hands of the public, CIC falls. Because the

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monetary base is made up of CIC plus reserves, this decline in currency implies that the monetary base has fallen. Likewise if a Central Bank decides to sell its domestic currency to purchase foreign currency this will result in an equal rise in its international reserves and the monetary base.

### **2. 1. 3 Significance of CIC in an economy**

Firstly, the most important factor influencing the liquidity of the financial market is the amount of banknotes and coins in circulation. Cabrero et al. (2002) stated that when evaluating the liquidity requirements of the banking system, it is obligatory to take into consideration the expected value of independent liquidity factors that affect the supply of bank reserves. These factors are independent because they are beyond the control of the central bank. For example, CIC is one of the main autonomous factors. It is a liquidity absorbing factor because cash withdrawals from banks will lead to a rise in the level of CIC induce additional refinancing needs of banks which have to meet their reserve requirements. Furthermore, the share of CIC in money supply that is banknotes in the hands of the public is a key component of the money supply measures. The classical economists explained that changes in the money supply have no influence on output; they argued that the amount of goods and services produced in the economy should not depend on the amount of banknotes in circulation but rather on the economy's productive capacity and that the price level will change according to changes in the money supply. This is what is referred to as money neutrality; money is just a veil that enables transactions to occur. Therefore, if there is a rise in the amount of CIC in the economy, there will be more money chasing more goods and services, hence prices will increase.

On the other hand, if money supply declines, there will be less money chasing those goods and services, resulting in a fall in price. Finally, the ratio of CIC to nominal Gross Domestic Product (GDP), according to the classical view money can be understood in terms of the quantity theory, which links the level of nominal GDP, represented by  $PT$  (the price level,  $P$ , multiplied by real GDP,  $T$ ) to the product of the money supply,  $M$ , and the velocity of money  $V$ .

## **$MV = PT$**

$M$  is the money supply which includes currency and bank deposits available to the public.  $V$  is the velocity of money. It basically explains how quickly the money supply is turned over.  $P$  is the price level.  $T$  is the total amount of transactions. So  $MV = PT$  means that the total GDP at the current price level is equal to the total money supply multiplied by how often it is turned over.

### **2. 1. 4 Importance of forecasting banknotes**

Given that the Central bank has the exclusive right to issue currency; it cannot determine exactly the total amount of CIC as that demand is influenced by the non-banking sector. Therefore, Central banks should focus on forecasting banknotes in circulation because providing a precise forecast would enable the central bank to: Implement effective monetary policy so they can manage liquidity efficiently both in terms of absolute size and in terms of instability To maintain price stability Hlavacek et al. (2005) stated that since the objective of the Central Bank is to maintain price stability, it needs an accurate estimate of money market liquidity. However, the liquidity is influenced by independent factors that are not under full control of the Central Bank. The most significant independent factor is CIC, which is

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difficult to measure as it is strongly influenced by many seasonal factors. To get over the problem Central Banks have been using mathematical models of CIC as supportive tools and most of them have used linear ARMA models. Balli and Elsamadisy (2010) forecasted CIC because an accurate prediction of CIC would help to stabilize the money market in the short run and it certainly helps to decrease instability in money market rates, thus resulting in higher economic growth. According to Fischer (2004) the total amount of banknotes and coins is thoroughly controlled by the monetary authorities, as central banks are, in principle, able to decide exactly about the amount of currency they put into circulation and know the exact amount of remaining currency. Moreover, central banks usually accommodate the total demand for banknotes irrespective of its origin. This notwithstanding, central banks are not able to follow the way that currency takes once put into circulation. Therefore, there is little straight statistical information on where the currency circulates, who holds the currency (residents or non-residents) and on the motives for which the currency is held (for transactions, hoarding or illegal purposes). Hence for monetary policy purposes, the amount of currency held for transactions within the domestic currency area is of particular interest and it should be forecasted.

## **2. 1. 5 Changes in the total amount of banknotes in circulation**

An enormous number of issues and situations cause a change in the total amount of CIC that are clearly uncontrollable. Variations in the total amount of CIC directly have an impact on the liquidity of the banking sector. When banknotes and coins is returned to the central bank the amount of CIC

reduces, hence liquidity of the banking sector increases. Likewise, a cash withdrawal that is, the total amount of CIC rises will lead to a decrease in the liquidity of the system. Thus changes in the overall amount of CIC directly influence the liquidity of the banking sector. Variations in banknotes in circulation are of interest to policy makers because an increase in CIC entails a decline in deposits and as a result it leads to a decline in the availability of loanable funds for investment, which is essential for economic growth. Moreover, a rise in CIC indicates that there is inflation in the economy. With financial innovation, that is there is an improvement in the alternative means of payment, the rate of growth in the series of banknotes in circulation has fallen. For example significant changes in the application of electronic technology such as the availability of credit cards which give access to the use of Automatic Teller Machines (ATMs), Electronic Fund Transfer at Point of Sale (EFTPOS) and electronic banking services and overdraft facilities have reduced the need of banknotes. CIC is a function of interest rate. Interest rate denotes the opportunity cost of holding money, and as a result, the higher the interest rate the lower the level of CIC. While, the rate of interest is lower, the level of CIC rises. Another aspect that determines CIC is the GDP growth, as people's incomes increase in nominal terms, CIC is likely to rise and as income decreases the amount of banknotes in circulation declines. Moreover, there are other irregular phenomena that have an impact on the series of CIC. For example, according to Cabrero et al. (2002) the amount of banknotes in circulation rose rapidly in late 1999, because of the Y2K computer bug which led to a strong increase in demand for banknotes.



## 2.2 The Calendar Effect

Calendar effects are anomalies that relate to the calendar such as the changing month length, the effect of religious and public holidays and the day of the week effect. For example, calendar anomalies have been documented by Balli and Elsamadisy (2010) and they are characterized as international phenomena. Calendars exert intense effect on the cultural, social and economic behavior of the people. Almost all countries follow the Gregorian calendar to set its working days and holidays according to this calendar. The Gregorian calendar is having 365 or 366 days in every year. However, holidays do not follow the Gregorian calendar, as they are based on the festivals and religious observances of different ethnic groups in the country, whose date vary from year to year. This makes it challenging to model high frequency time series. The amount of CIC rises just before the weekend when ATM networks are filled for the weekend to withstand all the shopping activity and declines after the weekend that is the trading day effect. It also declines before the middle of the month and increases towards the end of the month as a result of the payment of incomes. The amount of CIC increases during the summer holidays and towards the end of the year, mostly around Christmas. Public holidays also have a strong influence on the amount of banknotes in circulation. There are 2 different categories of the public holiday effect in Mauritius during the year, one is the fixed public holidays and second one is the religious holidays whose dates vary from year to year.

## **Fixed Holidays**

New Year January 1st and 2nd. Abolition of Slavery Day February

1st Independence/Republic Day March 12th. Labor Day May 1st. All Saints

Day November 1st. Christmas December 25th.

## **Moving Holidays**

Thaiposam Cavadee January/February. Maha shivaratree February. Chinese

Spring Festival January/February. Ougadi March. Id-El-Fitr May/June. Ganesh

Chaturthi September. Divali October/November.

## **Fixed holidays**

Public holidays which are fixed to a specific date and their positions in the month do not change. For example during the Christmas shopping season and the payment of annual bonuses there will be an increase in the series of banknotes in circulation.

## **Moving holidays**

Festivals which do not strictly follow the Gregorian calendar, the dates of religious festivals change over time. That is, though the holiday occurs at almost the same month each year, the exact date changes. There is higher demand for banknotes during festive seasons. Therefore, there is an increase in the amount of banknotes in circulation just before the public holidays and decreases after the holiday.

## **Intra-monthly effect**

Most of the payments (wages, salaries and pensions) to individuals are paid at the end of the month. Consequently banknotes in circulation increases at this time. As households make their regular payments, the money goes to

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the corporate sector and flows back to the banking system and then the demand for currency decreases until salaries are paid again.

## **2. 3 Empirical Literature**

This section provides a brief description of relevant empirical studies of modeling and forecasting CIC. The main findings have been recorded, merged and compared where appropriate to build a model and forecast CIC. Finally, the link between CIC and GDP is examined.

### **2. 3. 1 Forecasting CIC**

CIC is the most important independent feature in the framework of liquidity, both in terms of size and instability. Therefore, researchers have tried to develop forecasting means that will minimize the forecast errors. By improvement in the forecasting techniques, some researches have obtained precise estimations in recent years. For example some papers have predicted the CIC based on the theory of transaction, portfolio demand for money and univariate time series models. Bhattacharya and Joshi (2000) have predicted the banknote in circulation for India with weekly data sets from 1992-93 to 1999-00. Another study by Dheerasinghe (2006) have predicted CIC for Sri- Lanka with monthly, weekly and daily data sets for the period 2000-2005 and data for 2006 were used for post validity test. All 3 models used to forecast CIC in Sri-Lanka provided close predictions during the post sample period. These methodologies work well for low frequency data but faces restrictions with high frequency data series. Hence Bhattacharya and Joshi (2000) suggests a substitute way of modeling the weekly growth of CIC by including the ' day of the month' effect whereas Dheerasinghe (2006) proposes another approach in modeling the high

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frequency data by decomposing the trend, the seasonal and the cyclical components. Balli and Elsamadisy (2010) forecasted CIC for the State of Qatar using both regression model and Autoregressive Integrated Moving Average (ARIMA) model. To obtain a precise forecast, they forecasted the CIC using daily, weekly and monthly data. They also took into consideration the effects of holidays, weekends and public holidays on currency holding. Both models provided satisfactory results, however, the ARIMA model provides better estimations for short term forecasts compared to the error terms of regression model which is higher. But, for long term forecasts, both models suffer from larger forecast errors. Lang et al. (2008) forecasted CIC outside banks in Croatia using two econometric models for the short term forecast. In the past forecasting were done by the Croatian National Bank (CNB) staff with expertise in predicting banknotes in circulation outside banks. Hence Lang et al. (2008) forecasted CIC using both Regression model and ARIMA model. In order to obtain precise forecasts it is required to formalize its weekly, monthly and annual patterns. However, they concluded that both models provided satisfactory forecasts. But the regression model is better than the ARIMA model on the intervals up to 5 days ahead, whereas the ARIMA is better for long-term horizons. In a recent study, Güler and Talasli (2010) model the daily series of banknotes in Turkey for the period of September 2004 to January 2009. Their main motive was to construct an econometric model to predict daily CIC, as the CIC is the most important factors influencing the liquidity of the Turkish banking system. Hence it is fundamental for the Central Bank of the Republic of Turkey (CBRT) to produce accurate forecasts of CIC. Since the total amount of CIC is out of control of the Central Bank. It is required to construct an ARIMA model. They

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concluded that the forecasting performance of the ARIMA based approach is better than the expert judgments. However, the model has to be constantly checked to improve the quality of the model and make adjustment whenever needed. Hlavacek et al. (2005) forecasted the banknotes in circulation for the Czech Republic using both feed-forward structured neural network model and ARIMA model for the period July 2003 to June 2004. The purpose of their study was to introduce feed-forward model to forecast banknotes and compare with an ARIMA model. They obtained satisfactory results using the ARIMA approach for long term horizon (forecasts more than 2 weeks ahead) and short term horizon ( for at most 2 weeks ahead), however, they stated that the feed-forward neural network model is a better approach for analysis of time series of CIC compared to the ARIMA approach. Cabrero et al. (2002) model the daily series of CIC in the framework of managing of the European monetary system using the ARIMA approach and Structural Time Series approach (STS). So far, the forecasting of CIC has been computed by the National Central Banks (NCBs) of the Euro system and the quality of NCBs forecasts has been good up to now. Yet, there are 2 reasons for predicting CIC in the Euro area directly. First, this prediction can be used to supplement and improve the National forecasts and in addition, the introduction of Euro banknotes in 2002 and the free movement of banknotes within the Euro area may make the NCBs prediction less dependable. Results presented in their study shows that these 2 approaches are influential and show a performance which is up to the standards of the current aggregated forecast approach employed by the Euro system. They concluded that the ARIMA provides satisfactory forecasts over 5 days and above, while the STS approach is best

over horizons of 1 to 4 days. Therefore the best forecasting model is a combination of the ARIMA and STS models.

### **2. 3. 2 CIC and GDP a cointegration analysis**

According to the Cambridge approach where  $MV = PT$ , any increase in  $M$  (Money Supply) will bring about a proportionate rise in  $P$  (Price level). As a result  $MV = PT$  means that total GDP at current price level is equal to the total money supply multiplied by how often it is turned over. To test whether this statement is valid empirically, Bednarik (2010) examined the Czech economy using graphical analysis and Vector Auto-Regression (VAR) models and found that there is indeed a strong relationship between GDP and money supply. Another study by Zapodeanu and Cociuba (2010) analyzed the data of GDP after removing seasonality and of money supply through the Augmented Dickey-Fuller (ADF) test and found that the two variables are non-stationary. They further applied the Engle-Granger method and show that the two variables have a cointegrating relationship and concluded that the best model explaining the relationship between money supply and GDP is the DVAR autoregressive the difference model. A recent analysis conducted by Mohamadpour et al. (2012) attempted at unveiling the relationships that exists between GDP and monetary policy in Malaysia. Quarterly data from 1991 to 2011 r unveil to be stationary after the first difference. Hence, they applied the cointegration analysis and Vector Error Correction Model (VECM) to examine the link between GDP and money supply. Findings suggested that the VECM analysis specifies that money supply are statistically significant and have a long term influence on GDP.

Thus implying that increasing money supply in Malaysia will have a positive impact on GDP.

## **2. 4 Conclusion**

This chapter reviews the theoretical and empirical literature of modeling and forecasting CIC and it explores the different views brought forward by various researchers on CIC. Furthermore, the relationship between GDP and CIC are explored. This chapter is very important in the sense that the empirical literature provides guidance and relevance to the study.

## **3. 0 Introduction**

The objective of this chapter is to highlight the Mauritian economy. Since its independence in 1968, the Mauritian economy has developed from a mono-agricultural industry (sugar) in the 1970s to a more diversified economy in the 1980s with growing industrial, tourism and financial services sector. Currently, the main sectors that account for major components of growth consist of: Real Estate, Manufacturing, Financial Intermediation and wholesale & Retail trade.

### **Fig 3. 1: Sectoral Distribution of GDP at basic prices in 2011 (Source: Central statistics office (CSO), Government of Mauritius)**

All key sectors of the economy recorded positive growth rates in 2011.

### **3. 1 Mauritian financial system**

The financial system refers to the organization and the infrastructure which facilitates financial transactions in the economy. The financial system consists of banking sector dominated by MCB and SBM, insurance sector

(Mauritius Union Insurance Ltd, Swan group, and CIM insurance), stock market (Stock Exchange of Mauritius) and derivatives market (Global Board of Trade). The functions of financial system are mobilization of financial resources, transfer resources from lenders (surplus units) to borrowers (deficits units), responsible for the distribution of resources, promote financial activity and economic growth, maintain public confidence and make provision for liquidity. Mauritius has a well-developed and quite large domestic financial system and an emerging offshore sector. The essential financial sector structure, such as payment, settlement systems and securities trading, is well-organized and modern. In the late 1980's and early 1990's, the Mauritian financial sector underwent the financial liberalization process. Market deregulation and liberalization was important in order to develop and revise the financial services sector. Market improvements were necessary for the development of the financial services sector which now includes a group of institutions as well as well-established banks, insurance and pension companies, stockbrokers, investment companies, non-bank deposit-taking institutions, leasing companies, credit institutions, money changers and foreign exchange dealers (British American Exchange Co. Ltd, Cim Forex Ltd, Thomas Cook Operations Co. Ltd, Shibani Finance Co. Ltd, Forex Direct Ltd and Island Premier Traders FX Limited). Since the late 1980s with the beginning of the financial liberalisation programme, which formed part of the whole economic liberalisation strategy, the Mauritian financial system has experienced significant changes. It was essential for Mauritius to embark on a broad economic adjustment programme between 1979 to mid-1986 with the support of the World Bank and the International Monetary



Fund (IMF) to deal with large unsustainable fiscal imbalances, slow growth, high unemployment and external disequilibrium by the late 1970s.

### **3. 1. 1 Effects of the global financial crisis in Mauritius**

The global financial crisis affected Mauritius because of its exposure to the global economy is very high as it is highly dependent on international trade and Foreign Direct Investment (FDI). The first effect was felt on tourism and textile sectors, via the trade channel. Tourism was the most affected sector; a fall in tourism would lead to low exports and higher current account deficits. Second, we rely significantly on FDI and foreign investors chose to reduce their risk exposure and many of the rich industrialized countries have bailed out the banking system because of the high exposure to toxic assets. The Mauritius financial system is a bank-based one as banks represent around 70% of the total assets. Although the crisis started in 2008, Mauritius experienced a lagged effect and started to face significant consequences in late 2008. In early 2009, according to the Financial Stability report of bank of Mauritius (BOM), the current global financial turmoil is undoubtedly an extraordinary one; accentuated by prompt decline in trade volumes and considerable job losses. . The BOM annual report 2010-11 noted that the global economy continued to recover even though there remained a high degree of uncertainty surrounding the economic recovery in the wake of lasting concerns over the euro area sovereign debt crisis. By all reckoning, it is the worst crisis since the Great Depression in 1929. However, Mauritius' sound economic policies and prudent banking practices helped to alleviate negative effects from the global financial crisis in 2008-09. The economy recovered in 2010 and the real GDP growth rate which is a basic measure of

a country's economic performance was 4.2% compared to 3.1% in 2009, driven by fairly buoyant activity in main sectors of the economy.

### **3.1.2 Monetary performance**

The BOM has been set up for the formulation and execution of monetary policy consistent with stable price conditions, promotion of economic growth and achievement of internal and external equilibrium. There has been numerous financial and monetary policy changes associated with the change from a mono-crop economy to a newly industrialized economy. To attain the objective of stable price conditions the BOM needs to formulate and implement a number of measures affecting the supply of reserve money, money supply and the level of interest rates in the economy. These set of measures designed to achieve its objective is called monetary policy. A new framework has been introduced for the conduct of monetary policy. The first one is to target on economic analysis that measures short and medium term risks to price stability and the second one assesses monetary developments and the associated long term risks to price stability.

### **3.1.3 Balance of Payments (BOP) in Mauritius**

The BOP is a systematic record of a nation's total payments to foreign countries, including the price of imports and the outflow of capital, along with the total receipts from abroad, including the price of exports and the inflow of capital. The country's BOP during 2010-11 according to the BOM annual report is having a sustained current account deficit partly offset by greater net inflows in the income account and higher surpluses in the services and current transfer's accounts.

### **3. 2 Doing business in Mauritius**

Mauritius has a rich and diverse cultural and economic background. It offers a favorable investment climate to do business. The economy is based on free enterprise with the private sector playing a major role and the government providing the infrastructure and legal framework. The global economic slowdown could certainly be an occasion for foreign businessmen and investors to take a close look at the opportunities the country offers. These include:-Political and economic stabilityA well-educated, bilingual and skilled workforceCompetitive wage rates and Government encouragements for trainingFavorable tax régimeGood physical infrastructure (airport & port facilities, electricity, water supply, road network)Good communications infrastructureGlobal standard private schooling and healthcare facilities for emigrants and their familiesAccording to the World Bank data the rank of Mauritius in the doing business for 2012 is 24 and for 2013 it is 19. Mauritius is ranked high in terms of competitiveness, investment climate and governance.

### **3. 3 Double taxation treaty with India**

Double Tax treaty is a two-sided contract between two countries or tax authorities, for example, between Mauritius and another country. This type of agreement is intended at evading taxation of income in both countries (double taxation of the same income) and to spur investments and financial trade between two associating countries. Double taxation happens where two or more tax authorities tax the same stated income. Mauritius has signed a significant number of double tax contracts. The benefits of these agreements are enjoyed by both resident and non-resident companies doing

business in Mauritius. The existing Double Tax Treaty between Mauritius and India has helped Mauritius in the development of its financial services sector and the Treaty has also benefited India in terms of Foreign Direct Investment over the last 20 years. The agreement with India, which had strengthened the emergence of Mauritius as the leading channel for FDI into India, came under attack in 2002 from Indian tax authorities as a result of assumed abuses by Indian-domestic investors. After a series of eminent court hearings, the present circumstances appeared to have been reestablished. However, rumblings from the Indian authorities with regard to the supposed 'abuses' are still continuing in 2011 and it was announced in June that discussions between the two countries to amend the treaty are to commence soon. In October 2006, in an attempt to stop pressure from India to change the countries' Double Tax Avoidance Agreement, the Mauritian government announced that it would tighten up rules on the issuance of Tax Residence Certificates, and in future would issue them for only one year at a time.

### **3. 4 Sectoral performance to GDP**

Table 3. 1[1] clearly shows that there are fluctuations in GDP at basic prices in all the sectors. In 2011, the GDP at basic prices decreased to 3. 9 compared to 4. 2 in 2010. All sectors registered positive growth rates in 2011 except for the construction sector, which contracted. The rate of growth of the construction sector slowed down to -0. 1 in 2011, from 0. 3 in the previous year. The agricultural sector rebounded to 0. 2 in 2011 after registering negative growth a year earlier and the manufacturing sector recorded a growth rate of 0. 4 in 2011, same as in 2010. Growth in the financial intermediation sector increased to 0. 5 in 2010 and 2011 from 0. 4

in 2009. However the real estate sector is contributing more to the performance of Mauritius in 2011.

### **3. 5 Foreign Direct Investment (FDI) inflows**

FDI is a cross border investment by one firm directly in a foreign country.

From the sectoral contribution of FDI[2], one can see that there is no smooth sectoral trend, neither upward nor downward from 2006 and onwards with the exception of construction. It appears that Mauritius has been receiving FDI based on different projects and that the volume of FDI we receive is not growing consistently in total.

### **3. 6 Public debt**

Public debt also called Government debt or national debt is the total amount of money due by the Government to creditors within the country (domestic) in addition to international creditors (foreign). Table 3. 3[3]provides details on public sector debt, consisting of both domestic and foreign debt.

Government debt increased from Rs 171, 511 million as at end-December 2010 to Rs 185, 212 million as at end-December 2011 and further to Rs 192, 259 as at end-September 2012. However, as a percentage of GDP over the same period national debt decreased from 57. 4% to 57. 3% and further to 56. 8%. So, from the above figures, it can be said that Mauritius is subject to a rather comfortable debt zone chiefly when the international norm is based on a threshold of 60% for the debt to GDP ratio.

### **3. 7 Banking sector in Mauritius**

The Bank of Mauritius was established in September 1967 as the Central Bank of the country. According to the BOM annual report as at end-June

2011 the banking sector consist of 20 banks authorized to carry out banking business in Mauritius of these, 8 were local banks, 7 were subsidiaries of foreign owned banks and 5 were branches of international banks. Besides offering traditional banking services, they offer card-based payments such as debit and credit cards and internet banking facilities. Also, a fully-fledged Islamic bank has been licensed and commenced operations in March.

Mauritius has an oligopolistic banking structure with two banks scheming a most important share of the market namely the Mauritius Commercial Bank Ltd and the State Bank of Mauritius Ltd and two main foreign banks namely HSBC and Barclays. According to Table 3. 4[4], the number of banks, number of branches and number of ATMs has grown considerably during the last years. However, the number of inhabitants per branch has fallen which may imply better banking services.

### **3. 8 Overview of CIC in Mauritius**

The BOM is the sole distributor of banknotes and coins in the economy. An important function of the Currency Office is to ensure a smooth and efficient supply of banknotes and coins to meet public demand. Its main areas of work include: Ensuring the availability and supply of good quality banknotes and coins to banks and accepting deposits of banknotes and coins from banks.

### **Fig 3. 2: Currency in Circulation from 2000 to 2011**

Figure 3. 2 above demonstrates that there is a consistent increase in CIC.

Using yearly data from 2000 to 2011, figure 3. 2 above reveals that CIC has followed a clear upward trend that mainly reflects the general expansion of economic activity.

### **3. 9 Conclusion**

Over the years the Mauritian economy has witnessed a massive development. From a monocrop economy, depending mainly on sugar; it has diversified its economic activities into, manufacturing, tourism and financial services. The Mauritian economy has indulged in diversification to maintain continuous growth. The agricultural sector which constitutes basically of sugar production has been the backbone of the Mauritian economy for more than three eras until the 1980s when the textile sector, consisting mainly of textile products lead economic growth in Mauritius. The textile sector, which includes activities grouped under sugar milling, exports oriented enterprises and other enterprises manufacturing goods mostly meant for the local market, is still considered as an important source of growth in the economy although its contribution is comparatively less than its high-track records in the 2000 and 2001. Due to its resilient manufacturing sector, Mauritius has been well poised to take advantage of the Africa Growth and Opportunity Act (AGOA). Tourism is a fast growing sector, which brings a significant contribution to the foreign exchange earnings of Mauritius. Certainly tourism has contributed much to the economic progress of the economy and to the general well-being of its populations. Indeed, tourism is still very much a growth industry in Mauritius. The financial system in Mauritius, as in most developing economies, is still dominated by banks. Mauritius has a well-developed and quite large domestic financial system and an emerging offshore sector.