

Bangladesh Bank Independence and Governance: *Lessons from Reserve Bank of Australia*

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Abstract: *The paper examines the independence and governance of Bangladesh Bank in time of setting monetary policy, introducing & using monetary instruments, making deficit financing to the government, and performing any other functional activities that prescribe by law. For a sustainable growth and macroeconomic stability proper independence and governance of central bank is equally important like other factors. This study is based on CBIG model that is used to measure the degree of central bank independence and governance. In this work it is found that Bangladesh Bank (BB) as the central bank of Bangladesh has a very little independence and there is great deal of influence of the government over its activities. After recognizing several aspects of Bangladesh Bank (BB) independence and governance it is observed that BB's overall CBIG index is quite low compare to the Reserve Bank of Australia (RBA). More specifically, BB has the opportunity to enhance its overall CBIG index by improving the independence in legal, price stability objective, exchange rate policy, monetary policy & deficit financing and accountability & transparency aspect.*

Keywords: *accountability and transparency, Bangladesh Bank (BB), central bank independence and governance (CBIG), legal independence, monetary policy and deficit financing, political independence, price stability, exchange rate policy, Reserve Bank of Australia (RBA).*

1.0 Introduction

“Central bank independence and governance (CBIG) means that a bank has the legal power to protect itself from external influences, has the freedom to set its monetary policy and can implement its objectives without any political interference, can select appropriate instruments to control the price, inflation, exchange rate stability and limited accountability to the parliament of the country to keep its activities transparent.”- Ahsan, Skully and Wickramanayake (2006, p. 60). Till date this is the most comprehensive definition of central bank independence and governance where every aspects of independence and governance has been focused after analyzing the indices of previous authors who have worked on central bank independence. In earlier studies, many authors find that an independent and well governed central bank will help to foster economic

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growth, reduce inflation, prove efficient financial system and financial institutions and so on. Kyndall and Prescott (1977) and Barron and Gordon (1983) showed that more independent central banks would reduce inflation rate. Central bank independence may improve economic performance for several reasons. Nordhaus (1975) and Rogoff and Sibert (1988) have discussed and showed the pre-election manipulation of monetary policy; and by reducing this effect or by ensuring the independence central bank can foster economic stability and growth. So central bank independence is very much needed especially in developing countries like Bangladesh, which is just attracting and amazing the world through its performance. The apex institution, Bangladesh Bank, can play a vital role for the development of our economy if its independence has ensured. But the required pace of the economic growth of Bangladesh is getting stuck due to the low degree of independence and governance of Bangladesh Bank.

At first, the study focused on measuring the degree of independence that Bangladesh Bank currently enjoying. After that it is essential to determine the degree of independence of Reserve Bank of Australia for comparison purpose. Here the study is trying to use the CBIG index of Ahsan, Skully and Wickramanayake where various individual indices are combined to measure the overall degree of independence (discussed in the methodology section). Secondly, the study compares the CBIG index of Bangladesh Bank and Reserve Bank of Australia. And trying to put some light on the specific individual indices where Bangladesh Bank is lagging behind compare to Reserve Bank of Australia. Finally, the most critical part of the study is providing some policy suggestions towards the enhancement of CBIG index of Bangladesh Bank considering the experience taken from the Reserve Bank of Australia.

1.1 Objectives of the Study

The main objectives of conducting this study and the reasons behind the comparison between the central bank of Bangladesh and Australia are as follows:

- To identify the degree of Bangladesh Bank independence based on CBIG index.
- Unearthing the ways to enhance the degree of Bangladesh Bank independence and governance.

1.2 Methodology

Research Method: This is an exploratory research. Therefore, research method followed for the purpose of the study was desk research and reviews the existing literature on the subject.

Sources of Data: The primary sources of data for CBIG index are the two country's central bank acts (includes amendments, annual reports, web sites, circulars, media releases and other central bank publications).

Index Model: The CBIG indices we have used for our study is the model examined and suggested by Ahsan, Skully and Wickramanayake (2008). We have worked and took the 1991 to 2013 period for our study. The detailed index construction and calculation procedure is shown in Appendix A and B. The main equation to calculate CBIG overall index is explained by equation (1). This overall CBIG index (CBIG Overall) is constructed with the six sub-indices: 1. Legal (CBIGLeg) 2. Political (CBIGPol) 3. Price stability objectives (CBIGPStab) 4. Exchange rate Policy (CBIGForx) 5. Monetary policy and deficit financing (CBIGMonpol) 6. Transparency and accountability (CBIGAcctrans).

$$CBIG_{overall} = w_1CBIGleg + w_2CBIGpol + w_3CBIGPstab + w_4CBIGForx + w_5CBIGMonPol + w_6CBIGAccTrans..... (1)$$

CBIGleg = Legal Index of CBIG

CBIGpol = Political Index of CBIG

CBIGPstab =Price Stability Objectives Index of CBIG

CBIGForx = Exchange Rate Policy Index of CBIG

CBIGMonPol = Monetary Policy and Deficit Financing Index of CBIG

CBIGAccTrans = Accountability and Transparency Index of CBIG

$$\text{Weights: } w_1=5/26, w_2= 3/26, w_3 = 3/26, w_4 = 3/26, w_5 = 6/26, w_6 = 6/26$$

The variables are equally weighted to construct the sub-indices and the overall index. The proportional weights of the sub-indices in the overall index reflect the actual number of variables in each divided by the total number of variables (26). The index construction details are shown in *Appendix A*.

2. Literature Review

There are very few literatures available which address the ways to enhance the degree of central bank independence and hence we are focusing on some key reviews related to the model and central bank independence. The definition given by Ahsan, Skully and Wickramanayake is the most comprehensive definition and focus on the every aspect (such as legal, political, price stability objective, foreign exchange rate policy, monetary policy and deficit financing, accountability and transparency) where a central bank needs independence or no intervention of government in any way to take good decisions for the betterment of the economy and serve the purpose for which it is assigned.

The legal aspect of CBIG is related to the various acts passed by the parliament regarding the independence in appointment and dismissal of the governor and separation of supervision of financial institution from the central bank (Ahsan, Skully and Wickramanayake 2008). Amtenbrink (2004) also suggests the necessity of legal issues to

ensure the code of good governance of a central bank. The degree of CBIG improves as the governor's turnover rate goes down (Moser and Dreher 2007). Furthermore, Masciandaro, Quintyn and Taylor (2007) found that the legal independence of central bank improves with the separation of supervision of financial institutions from central bank.

CBIG (political) focuses on the political pressure on a central bank in its key areas where decision-making can be influenced like government representatives in central bank board and change of governor with the change of political party. If there are higher numbers of government representatives in central bank board or the governor changes with the change of political party, the degree of GBIG goes down (Ahsan, Skully and Wickramanayake 2008). Political autonomy is identified as one of the weakest areas by Arnone, Laurens, Segalotto and Sommer (2007), where the degree of CBIG may reduce dramatically. Grilli, Masciandaro and Tabellini (1991); Cukierman (1993); Cukierman and Webb (1995), found that political instability adversely affects central bank's activities and hence its independence.

CBIG (price stability objectives) is related to maintaining price stability as central Bank's main monetary policy objective. According to Ahsan, Skully and Wickramanayake (2008), an independently targeted inflation apart from the political economics and timely revisions of interest rates would help the central bank achieving its price stability target. Bade and Parkin (1988), have not found any association between CBIG and inflation. On the other hand, in developed countries, Cukierman, Webb and Neyapti (1992); Pétursson (2000); Kuttner and Posen (2001); Brumm (2006), have found strong relationship between the degree of CBIG and inflation.

CBIG (exchange rate policy) acknowledges the role of a central bank under a fixed and a floating rate exchange system. The currency market intervention and regulation formulation should be done by the central bank (Ahsan, Skully and Wickramanayake 2008). According to Kuttner and Posen (2001), an independent central bank is required to for the better maintenance of stable exchange rate system.

CBIG (monetary policy and deficit financing) focus on the role played by central bank in formulating monetary policy and choosing its final goal (Ahsan, Skully and Wickramanayake 2008). According to Eijffinger and Schaling (1993), the ability to make all the monetary policy decisions by the central bank itself increases its CBIG.

CBIG (accountability and transparency) focus on the disclosure requirements of a central bank. According to de Haan, Amtenbrink and Eijffinger (1999), there is disagreement about the essentiality of accountability and transparency. According to Lybek and Morris (2004), there is also disagreement about the type of the autonomy to be delegated to the central bank. Regular communication with the public on various aspects and changes by central bank is very essential (Ahsan, Skully and Wickramanayake 2008).

3. Measuring CBIG index of Bangladesh and Australia

In this section we have attempted to calculate the degree of CBIG with the help of CBIG model since 1991 till 2013 for both Bangladesh Bank and Reserve Bank of Australia.

3.1 CBIG index for Bangladesh Bank, Bangladesh

The calculated values regarding the six aspects and overall CBIG based on the index presented and discussed above are presented here. The detailed calculation is shown in Appendix B (the inputted figures are based on the details from facts included in Appendix A).

Table 1: CBIG Index for Bangladesh Bank, Bangladesh (Years 1991 – 2013)

Years	CBIGLeg	CBIGPol	CBIGPStab	CBIGForx	CBIGMonPol	CBIGAccTrans	CBIG
1991	0.32	0.89	0.28	0	0.22	0.17	0.29
1992	0.32	0.89	0.28	0	0.22	0.17	0.29
1993	0.32	0.89	0.28	0	0.22	0.17	0.29
1994	0.32	0.89	0.44	0	0.22	0.17	0.31
1995	0.32	0.89	0.44	0	0.22	0.17	0.31
1996	0.32	0.89	0.44	0	0.22	0.17	0.31
1997	0.32	0.89	0.44	0	0.22	0.17	0.31
1998	0.32	0.89	0.44	0	0.22	0.17	0.31
1999	0.32	0.89	0.44	0	0.22	0.17	0.31
2000	0.32	0.89	0.44	0	0.22	0.17	0.31
2001	0.32	0.56	0.44	0	0.22	0.17	0.27
2002	0.32	0.89	0.44	0	0.22	0.17	0.31
2003	0.32	1.00	0.56	0.33	0.42	0.39	0.47
2004	0.28	1.00	0.56	0.33	0.42	0.39	0.46
2005	0.28	1.00	0.56	0.33	0.42	0.39	0.46
2006	0.28	1.00	0.56	0.33	0.42	0.72	0.53
2007	0.28	1.00	0.56	0.33	0.42	0.72	0.53
2008	0.28	1.00	0.56	0.33	0.42	0.72	0.53
2009	0.28	1.00	0.56	0.33	0.42	0.72	0.53
2010	0.28	1.00	0.56	0.33	0.42	0.72	0.53
2011	0.28	1.00	0.56	0.33	0.42	0.72	0.53
2012	0.28	1.00	0.56	0.33	0.42	0.72	0.53
2013	0.28	1.00	0.56	0.33	0.42	0.72	0.53
Avrg.	0.30	0.93	0.48	0.16	0.31	0.39	0.40

From the above table it is observe that, the overall CBIG of Bangladesh since 1991 have never crossed a value of .53. The average of CBIG index has a value of .40 which means the central bank of Bangladesh enjoys about 40% overall independence in its activities. Therefore it can be said that the activities of Bangladesh Bank are highly influenced by the government and other external factors.

3.2 CBIG index for Reserve Bank of Australia, Australia

The calculated values regarding the six aspects and overall CBIG based on the index presented and discussed above are presented here. The detailed calculation is shown in Appendix B (the inputted figures are based on the details from facts included in Appendix A).

Table 2: CBIG Index for Reserve Bank of Australia, Australia (Years 1991 – 2013)

Years	CBIGLeg	CBIGPol	CBIGPStab	CBIGForx	CBIGMonPol	CBIGAccTrans	CBIG
1991	0.4	1.00	0.56	0.67	0.83	0.86	0.70
1992	0.4	1.00	0.56	0.67	0.83	0.86	0.70
1993	0.4	1.00	1.00	0.67	0.83	0.86	0.75
1994	0.4	1.00	1.00	0.67	0.83	0.86	0.75
1995	0.4	1.00	1.00	0.67	0.83	0.86	0.75
1996	0.4	1.00	1.00	0.67	0.83	0.86	0.77
1997	0.4	1.00	1.00	0.67	0.83	0.86	0.77
1998	0.6	1.00	1.00	0.67	0.83	0.86	0.81
1999	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2000	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2001	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2002	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2003	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2004	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2005	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2006	0.6	1.00	1.00	0.67	0.83	0.86	0.81
2007	0.6	1.00	1.00	0.67	0.83	0.86	0.83
2008	0.67	1.00	1.00	0.67	0.83	0.86	0.85
2009	0.67	1.00	1.00	0.67	0.83	0.86	0.85
2010	0.67	1.00	1.00	0.67	0.83	0.95	0.85
2011	0.67	1.00	1.00	0.67	0.83	0.95	0.85
2012	0.67	1.00	1.00	0.67	0.83	0.95	0.85
2013	0.67	1.00	1.00	0.67	0.83	0.95	0.85
<i>Avrg.</i>	0.56	1.00	0.96	0.67	0.83	0.86	0.80

From the above table it is obvious that the central bank of Australia enjoys an 80% independence regarding the overall index. The political independence index of 1.00 indicates the central bank of Australia is enjoying full independence regarding the political aspect of independence from the very beginning. The other indices are also very impressive and they all are lying above the 60% scale. The legal independence was not so impressive in the past year but from 2008-2013 it got a value of .67, which means the central bank of Australia, has worked hard on the legal aspects of independence. Overall it can be said that the central bank of Australia as a central bank of a developed country, is enjoying a very high degree of independence in its activities.

4.0 Comparative analysis of CBIG between Bangladesh and Australia

A detailed analysis of the CBIG of Bangladesh compared to that of the Australia regarding the six major aspects is given below:

4.1 Legal Aspects

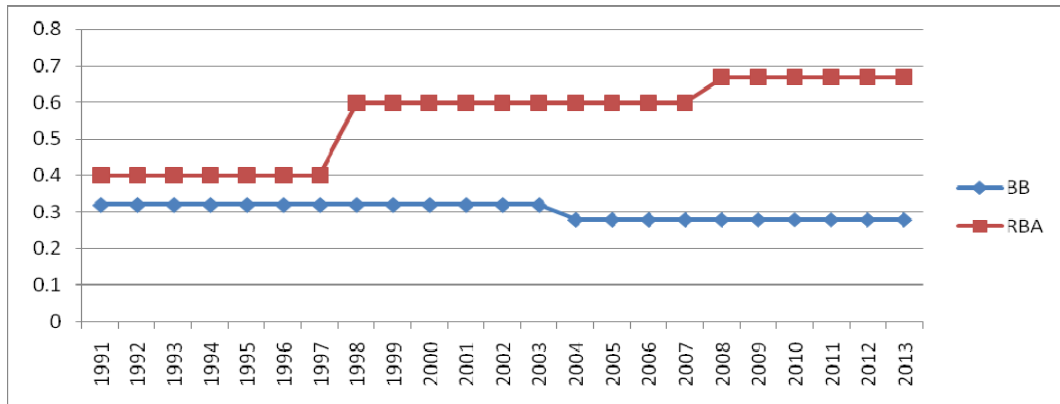


Figure 1: Legal Aspects

From the above graph it is apparent that BB’s legal index was 0.32 until 2003. The Bangladesh bank (amendment) act 2003 then changed the governor’s term of office from five years to four years reducing the index to only 0.28. In contrast the RBA’s legal index (0.67) increased in 2008 as the governor is no longer dismissible by the government but instead requires the approval of each House of the Parliament. The RBA’s previous legal index had been stable (0.60) for 10 years (1998-2007). The term of office of governor/CEO in RBA is much higher (7 years) compared to BB (4 years). If the term is longer than that of an elected politician (Australia 3 years and Bangladesh 5 years), then the politicians will have less influence. The legal power to appoint governor/CEO is same in both country but the recent change (6 December 2007) in the Australian dismissal

process gives the RBA a much higher status. The separation of commercial bank regulation and supervision from the central bank was done in Australia in 1998 but not as yet in Bangladesh. So, all these factors lead to a low legal index score for BB.

4.2 Political Aspects

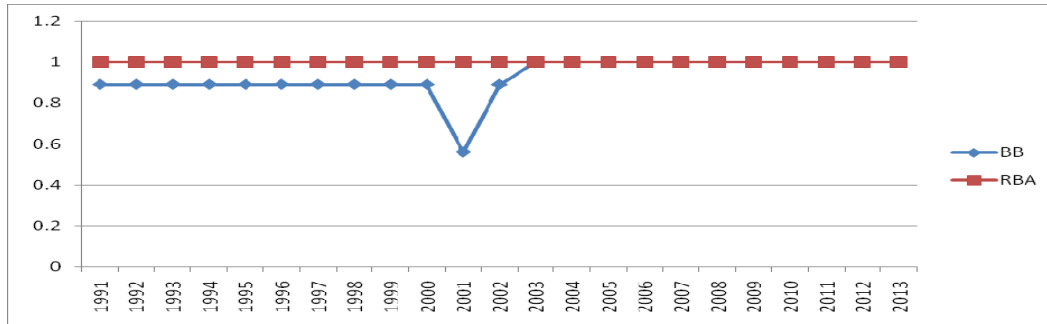


Figure 2: Political Aspects

From the above graph it is obvious that the political CBIG index of BB started at 0.89 in 1991 but dropped to 0.56 in 1996 and 2001 due to government's influence to change the governor in those particular years. The value reached 1.00 after the BB charter was amended in 2003. RBA gets highest score (1.00) because of no political influence in Australia. The BB score is low because it must consult and seek approval from the Ministry of Finance (MoF) on any important decision, such as monetary policy, licensing new banks and determining staff compensation. The governor's turnover rate in Bangladesh is also highly related with changes in government and the government representation on the BB's board is also higher than in Australia. The 2003 BB amendment addressed this by specifying that at least four directors should be non-government officials.

4.3 Price and Inflation Stability Aspects

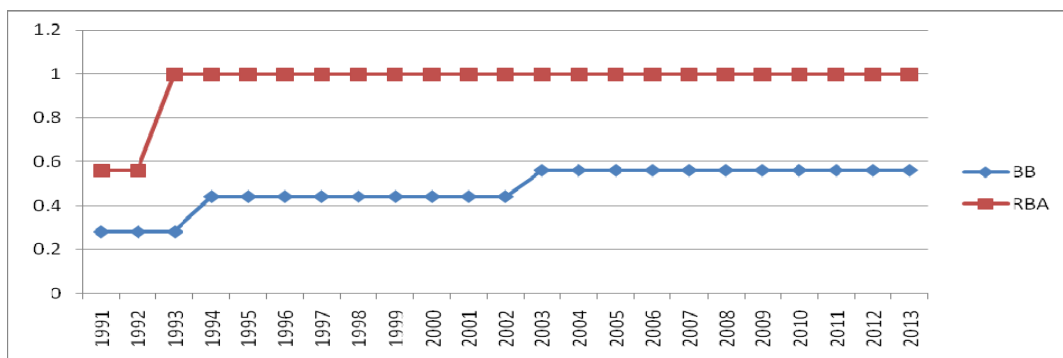


Figure 3: Price and inflation stability aspects

From the above graph it is understandable that the price stability objectives index of Australia is on the highest level (1.00) since 2003. That means price stability is the main objective of monetary policy of Reserve Bank of Australia (RBA). Inflation targeting and interest rate forecasting are now major monetary and macroeconomic tools in Australia. Even though BB introduced inflation targeting jointly with the government in 1994, the BB’s charter lacked this objective. It was not until 2003 that price stability objective was included in the BB charter, taking its score to its highest at 0.56. Though included in the BB charter, price stability is still not its only objective like with the RBA.

4.4 Exchange Rate Policy Aspects

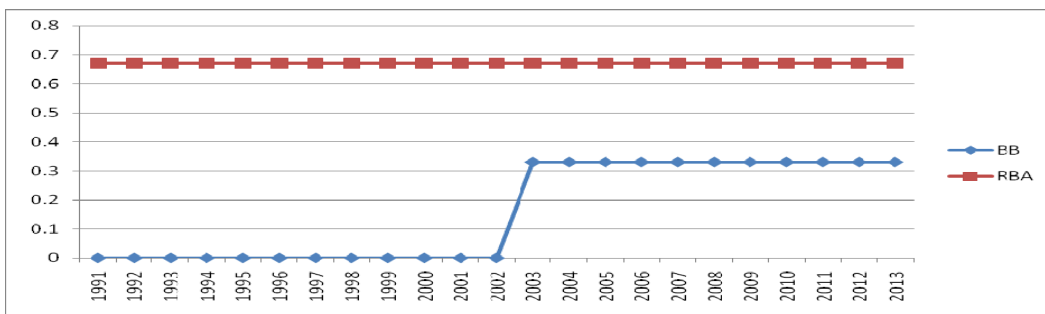


Figure 4: Exchange Rate Policy Aspects

From the above graph it is noticeable that the exchange rate policy index of BB has increased to 0.33 in 2003 from its previous zero score. In Bangladesh, floating exchange rate was introduced in 2003 and BB now has limited exchange rate policy powers as the government still retains some control. In contrast, the RBA has managed Australia’s foreign exchange policy since the dollar was floated in 1983. RBA’s ability to intervene and stabilize exchange movements have contributed to the relatively high score of 0.67.

4.5 Monetary Policy and Deficit Financing Aspects

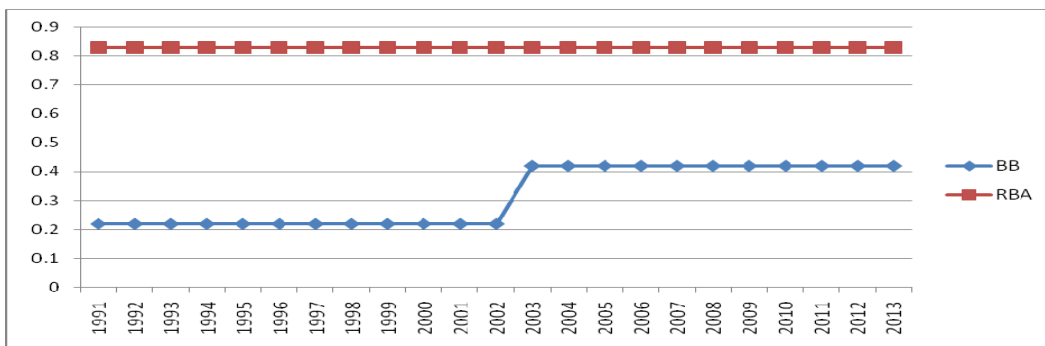


Figure 5: Monetary Policy and Deficit Financing Aspects

From the above graph It can be measurable that the monetary policy and deficit financing index for the BB was only 0.22 until 2003 as it had to follow direct orders from the MOF and had a very low level of operational independence. The formation of Coordination Council, which the Minister of Finance chairs and the BB governor is a member, has increased the communication and eased the settlement of conflicts between the government and the BB. The 2003 amendment also introduced monetary policy formulation as a central bank's function. In contrast, the index for RBA was 0.83 since 1991 showing its high level of monetary policy and deficit financing independence. The main reason is that RBA is not allowed to lend money to the government and has the full responsibility of monetary policy. In Australia, any unresolved differences in opinion between the governor and the Treasurer are referred to Governor-General for final decision.

4.6 Accountability and Transparency Aspects

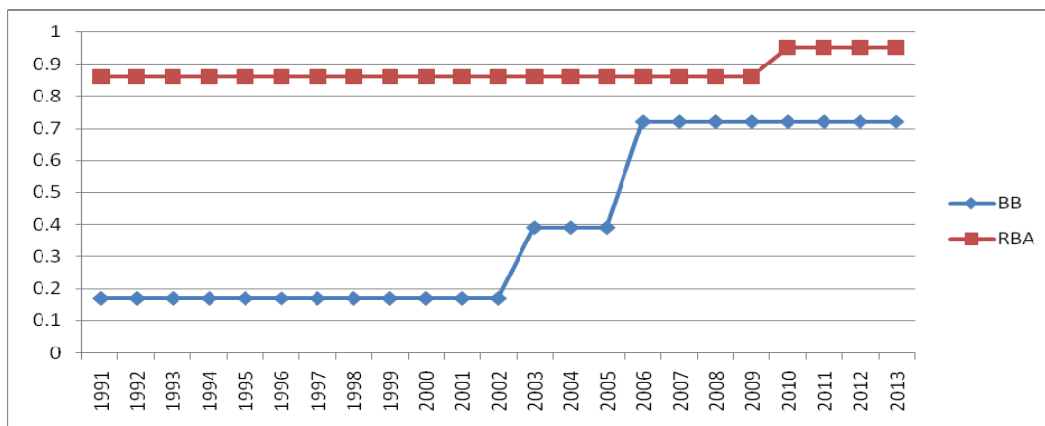


Figure 6: Accountability and Transparency Aspects

From the above graph it can be said that the accountability and transparency index of BB has increased from 0.17 in 2002 to 0.39 in 2003 and 0.72 in 2006. The main reasons behind CBIG improvement are that the Bangladesh bank amendment act 2003 has introduced written objectives of BB; the governor's accountability to the parliament; and since 2006 BB publishes regular monetary policy reports. It also put price stability as its main monetary policy objective and has communicated to the public. The level of accountability and transparency of RBA stood at 0.86 till 2006 but increased to 0.95 in 2007. This is because it now publishes its board meeting's minutes and explains any cash rate decisions.

5.0 Lessons for Bangladesh Bank

Although we are comparing with the central bank of a developed country, there is still scope for Bangladesh Bank to enhance its independence and governance by following the ways in which Reserve Bank of Australia has achieved greater independence and governance as those are mainly based on institutional reorganization and functional modification. In this section we are mainly focusing what Bangladesh Bank can do to enhance its independence and governance. Bangladesh Bank can adopt the following things:

5.1 Enhancing CBIG (Legal)

- Increasing the Governor Tenure to at least 7 years, this is currently 4 years and previously 5 years. The 4 year tenor has more chance to be influenced by the government as we have a governmental period of 5 years and with the change of every government there can be a change of governor although this has not yet happened except in 2001 when the governor (Mohammad Farashuddin) could not completed his tenure due to the change of government. If we really want to ensure the greater independence and governance of central bank we can adopt this policy of having a governor's tenure of 7 years as it will help the governor to work more independently without having the fear of being changed and influenced by the government.
- The dismissal of governor of Bangladesh bank is only approved by the government which is again decreasing the degree of CBIG_{Legal} and hence the overall degree of independence. If we can ensure the dismissal system of governor approved by both government and the contemporary parliament (not like the contemporary parliament that Bangladesh is currently having where a very few seats are of opposition. We are talking about a parliament where both ruling party and opposition are equally active in ensuring the public interest.), we can enhance the degree of central bank independence and governance. We again think that there is no problem in adopting this policy as it is only a matter of functional modification and desire to be better performing for the betterment of public and country.
- We can also separate the regulatory responsibilities for financial institutions from the central bank to make the central bank to be more concentrated in its very core activities. Though we have now separate regulators like IDRA (Insurance Development and Regulatory Authority) and BSEC (Bangladesh Securities and Exchange Commission) for insurance and capital market related

financial institutions, the banks (major financial institution of the total financial system) are still regulated by Bangladesh Bank. If there were separate regulator for banks there would have been more transparency and independence of Bangladesh bank as like as Reserve Bank of Australia. Now the question is can we afford a separate regulator for banks other than the central bank of our country? The answer is straight forward, if we can afford separate regulatory bodies for insurance and capital market why can't we have the same for the banks?

5.2 Enhancing CBIG (Political)

- Bangladesh Bank is currently having the highest and full degree of Independence related to Political aspects. In 2003 BB amendment addressed this by specifying that at least four directors should be non-government officials. So, the overall structure of the BB board has the least government involvement.

5.3 Enhancing CBIG (Price Stability)

- The score of Bangladesh in this area is only 0.67 as this is not the major objective or macro-economic goal of Bangladesh Bank. Bangladesh Bank started setting price stability goal in 2003 before then it was not even the objective of Bangladesh Bank. As there is no other government agency Bangladesh Bank has to focus on other goals too where this should have been the only objective.
- Inflation targeting can be done by central bank. There is always pressure from the government in setting the inflation targeting. To pretend themselves successful government they always try to manipulate the inflation rate. Hence to increase the degree of independence in price stability the central bank should focus on the inflation targeting by them excluding the government from the area.

5.4 Enhancing CBIG (Exchange Rate)

- We have seen that if the government decides to borrow foreign exchange they only focus on their own agenda without considering anything else. And for the corruption of the government bodies the borrowing in foreign exchange and the utilization of the borrowed fund is not efficient. When the government borrows without considering anything else it affects the foreign exchange rate. Although the central bank regulates the exchange rate but we have floating exchange rate that is decided by the demand and supply of in the market. If the borrowing decision had been in the hands of central bank then the central bank would have

worked efficiently and without the intervention of the government. So there should be a policy to decide the borrowing in the foreign exchange only by the central bank and not the government. This will enhance the degree of central bank independence and the bank could work for the better interest of the general people.

5.5 Enhancing CBIG (Monetary Policy)

- Government influence should be reduced to enhance the degree of CBIG regarding the monetary policy. There is a co-ordination council where there is a member from both the central bank and the government, where the monetary policy is formulated and the central bank implements the monetary policy. If we can dissolve the council of formulating the monetary policy and provide the central bank full independence or authority then we can enhance the degree of central bank independence and governance.
- There is no limit on lending to the government which gives the government the way to use funds as much as possible to achieve its very short term goal without considering about the long term goals as well as pressure on the central bank. And the central bank does not even have any say on it.
- In our country the government debt is managed by the central bank where it should have been the work of treasury department of the government. The co-ordination council sets the terms and condition of the lending. If we do not permit the lending in such a way and provide the authority to the central bank to decide the lending to the government as they manage everything then we can enhance the degree of central bank independence and governance as we have found a poor value regarding this in our findings. The government usually needs funding to finance the deficit budget. There is another way we can help the government obtain financing through establishing a debt market in our country which is yet to be flourished.

5.6 Enhancing CBIG (Transparency and Accountability)

- The minutes of any meeting of BB has never been published and there is no legal requirements as such. In this area Bangladesh Bank can increase its independence by publishing those minutes to the public.
- Currently the governor of Bangladesh bank is accountable to the government and the parliament and this practice decreases the degree of central bank independence and governance. If we want to enhance the degree of central bank

independence and governance there should not be any involvement of government in this regard and the governor should only be accountable to the parliament as practiced by the Reserve Bank of Australia.

6.0 Conclusion

Independence of central bank is an arguable matter particularly in the developing country like Bangladesh. Since its (BB) birth, Bangladesh Bank is working under the close supervision and control of the Ministry of Finance (MoF). It is obvious that while a central bank work under the control of government body it cannot work properly. Because vision, objectives and interest of these political backed government cannot be same as the interest of the central bank. The reason is that government always tries to pressure over the monetary policy of bank to get only short-run political benefits. Whereas guardian of the financial system, central bank should receive full independence to play roles for achieving long-term economic development through formulating and implementing appropriate monetary policy and supervising the financial institutions. Further it (BB) also may require supervising financial agenda of the government as well as maintain a good relationship with the government body because without government or government body it will be a very difficult situation for the bank but still it will have to achieve so much power and a great system that it must not have to rely on the government for a little amount. We have heard and seen about the financial and economic stability of various country, if we go through their degree of central bank independence we will find that the banks in those countries enjoys a great degree of independence, like Australia in our case. Most of the developing countries were failing in this regard, but now with the increased concern about the fact they are trying very hard to keep their central bank, the apex institution for the financial stability out of any type of political biasness. So with the increased importance of the Central Bank Independence and Governance, we as a developing nation to change our current situation should work on the matter and the sole responsibility for this lies with the government of Bangladesh. The government should come forward and at least let the central bank work in its own way.

7.0 Scope for Further Research

The CBIG issue is a critical subject matter from the perspective of a country's economic and financial stabilization, especially in the developing countries like Bangladesh which is trying to label itself as a middle income country. As it is observed that a numerous studies have been done on the determination of central bank independence and governance. But there should be more studies on the topic focusing on the effect of a country's central bank independence over its economic and financial stabilization. So there left a vast scope of study still.

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Appendix: A
Index construction

	Variables	Coding
1.	<i>LEGAL (CBIGLeg)</i>	
a.	Terms of office of Governor / CEO	
	6 years or more	1.00
	5 years	0.67
	4 years or less	0.33
	Not Mentioned	0.00
b.	Legal power to appoint Governor/ CEO	
	Parliament/Legislature	1.00
	Board of the central bank	0.50
	Government/ Executives	0.00
c.	Legal power to Dismiss Governor/ CEO	
	Board of the central bank	1.00
	Parliament/Legislature	0.67
	Government and Parliament	0.33
	Government/ Executives	0.00
d.	Has the regulatory responsibility been separated from central bank?	
	Yes	1.00
	No	0.00
e.	Reappointment of Governor	
	Yes	1.00
	No	0.00
2.	<i>POLITICAL (CBIGPol)</i>	
a.	Turnover of Governor / CEO	
	Political (if, the Governor changed with in 6 months of political change)	0.00
	Non-political	1.00
b.	Members of the management board of Bank	
	Non government persons	1.00
	Not mentioned government or non-government	0.67
	Government Employees	0.33
	Government Ministers	0.00
c.	Does Governor/CEO hold other office in the government?	
	No, Governor/CEO does not	1.00
	Yes, he/ she does	0.00

3.	<i>PRICE STABILITY OBJECTIVES (CBIGPStab)</i>	
a.	Price stability	
	It is the major or only objective of the bank	1.00
	Price stability is one objective with other compatible objectives	0.67
	No objectives stated in the bank charter	0.33
	Stated objectives do not include price stability	0.00
b.	Inflation	
	Inflation targeting and forecasting by CB	1.00
	Jointly done by CB and govt.	0.50
	Not done by the CB	0.00
c.	Interest rate	
	Interest rate setting and managed by CB	1.00
	Jointly done by CB and govt.	0.50
	Not done by the CB	0.00
4.	<i>EXCHANGE RATE POLICY (CBIGForx)</i>	
a.	Intervention of the foreign exchange market is decided by whom	
	Central Bank	1.00
	Jointly	0.50
	Government	0.00
b.	Foreign exchange market regulations done by whom	
	Central Bank	1.00
	Jointly	0.50
	Government	0.00
c.	Foreign exchange borrowings are decided by whom	
	Central Bank	1.00
	Jointly	0.50
	Government	0.00
5.	<i>MONETARY POLICY AND DEFICIT FINANCING (CBIGMonPol)</i>	
a.	Who is responsible for monetary policy formulation	
	Bank alone	1.00
	Bank participates, but has little influence	0.67
	Bank only advise government	0.33
	Bank has no say	0.00
b.	Who has the final word in resolution of conflict?	
	The Bank, clearly defined in the law	1.00
	A council of the central bank, executive branch, and legislative branch	0.50
	Government and Executive branch	0.00
c.	Lending to the government	
I.	Lending	

	Not permitted	1.00
	Permitted, but with strict limits (e.g. up to 15% of government revenue)	0.67
	Permitted, and the limits are loose (e.g. over 15% of government revenue)	0.33
	No legal limits on lending	0.00
II.	Terms of lending	
	Controlled by the bank	1.00
	Specified by the bank charter	0.67
	Agreed between the central bank and executive	0.33
	Decided by the executive branch alone	0.00
III.	Maturity of loans	
	Within 6 months	1.00
	Within 1 year	0.67
	More than 1 year	0.33
	Not mentioned in the law	0.00
IV.	Interest rates on loan must be	
	At market rates or above minimum rate	1.00
	Below market rate	0.67
	Interest rate is not mentioned	0.33
	No interest on government borrowings	0.00
6.	ACCOUNTABILITY AND TRANSPARENCY (CBIGAccTrans)	
a.	Objectives of the bank has the following features	
	Written objectives	1.00
	Clear priorities	1.00
b.	Communication strategy	
	Policy Explanations provided for public	1.00
	Press conference/ media release	1.00
	Publication of minutes of Board meeting	1.00
c.	Reporting of banking activities publicly	
	Periodic report publication	
	Yes published	1.00
	No	0.00
d.	Accountability of the Governor/ CEO	
	Accountable to the Board	1.00
	Accountable to Parliament	0.67
	Accountable to Government and Parliament	0.33
	Accountable to Government	0.00
e.	Is the central bank activities are audited?	
	Yes	1.00
	No	0.00

CBIG Index Construction of Bangladesh Bank (1991-2013)

<i>CBIG</i>	<i>Variable</i>	<i>Description</i>
1. Legal	a. Term of office of governor/CEO	5 years and reappointment [(Bangladesh Bank 1972a), Section 10 (5)], 4 years and reappointment [Bangladesh Bank Amendment Act. (BBAA), 2003, Section 10 (5)](Bangladesh Bank 2003)
	b. Legal power to appoint of Governor/ CEO	By the government [BBO, 1972, Section 10(3)]
	c. Dismissal of Governor/ CEO	By the government , [BBO, 1972, Section 15 (1) a]
	d. Regulatory body has been separated from central bank	No, Central Bank only Besides, BBO 1972, Bank Company Act 1991 empowers the Bangladesh Bank to regulate and supervise the banking sector of the country. The Financial Institutions Act 1993 also empowers the central bank to regulate and supervise Non Bank Financial Institutions (NBFIs)-the investment, leasing and finance companies. [BBAA, 2003, Section 7A (e)] (Bangladesh Bank 2003)
2. Political	a. Turnover of Governor / CEO	Not political, most of the governors have completed their term of office
	b. Members of the Management board of the Bank	Not mentioned in the law up to 2002 Non government official since 2003 The Board shall consist of— (a) the Governor; (b) a Deputy Governor to be nominated by the Government; (c) [four Directors who will not be Government officials] ⁵ to be nominated by the Government, from amongst persons who, in the opinion of the Government, have had experience and shown capacity in the field of banking, trade, commerce, industry, or agriculture; (d) three Government officials to be nominated by the Government. In BBO, 1972, it was not mentioned in 3 (c) above that whether four directors should be non government or not. In BBAA, 2003 it was included that [four Directors who will not be Government officials]
	c. CEO/Governor hold other office in the government?	No, it does not. [BBO, 1972 Section 13 (1)]
3. Price stability objective	a. Bank Objective(s)	No objectives stated in the bank charter prior to 2003 Price stability is one objective with other

		compatible objectives, since 2003. The broad objectives of the Bank are: a) To regulate the issue of the currency and the keeping of reserves; b) To manage the monetary and credit system of Bangladesh with a view to stabilizing domestic monetary value; c) To preserve the par value of the Bangladesh Taka; d) To promote and maintain a high level of production, employment and real income in Bangladesh; and to foster growth and development of the country's productive resources for the national interest; [BBAA, 2003]
	b. Inflation targeting	Jointly CB & Government (as there were coordination council between government and CB) Inflation targeting since 1994 (Sterne 2002)
	c. Interest rate setting	Jointly CB & Government (as there were coordination council between government and CB) The Financial system explanation of Bangladesh Bank explains that the new interest rate policy became effective in January 1990, and made all deposit rates decontrolled. Lending rates are all freely determined by the market, except for exports. [http://www.Bangladeshbank.org/fnansvs/fnansvs.html] (Bangladesh Bank 1972b)
4. Exchange Rate Policy	a. Intervention of foreign exchange market done by whom?	Central Bank since 2003 Taka (Bangladesh currency) was floated against all major currencies in June 2003. Bangladesh Bank managed the transition successfully. Move to floating exchange rate regime done without volatility in exchange rate. [(Ahmed 2005) and BBAA, 2003, Section 7A (b)]
	b. Foreign exchange market regulations done by whom?	Government Section 11 to section 18 of the regulation act explains the government's power to control and regulate. [Foreign exchange regulation Act, 1947 (modified up to 1996) Section 11 to section 18] (Government of Bangladesh 1996)
	c. Who decides borrowings in foreign exchange?	Government There is no evidence of central bank having any power to borrow foreign currency, so it is assumed about government.
5. Monetary policy and deficit financing	a. Who is responsible for monetary policy formulation?	Bank participates, but has little influence The main functions of the bank shall be: (a) to formulate and implement monetary policy; was added to the Bangladesh Bank Act by BBAA, 2003,

		Section 7 A (a) in 2003. Prior to that bank did not have any say in formulation of monetary policy of Bangladesh. But section 9 A of BBAA, 2003 adds role of a co-ordination council which curtails the power of the central bank in formulating the monetary policy as it says in Section 9 A (3) The Bangladesh Bank shall ensure that the macroeconomic framework as coordinated by coordination council is reflected in the policies of the Bangladesh Bank. Which means that the Bank participates, but has little influence.
	b. Who has the final word in resolution of conflict?	Government, prior to 2003 A council of the central bank, executive branch, and legislative branch since 2003 Government had the power to give any direction it considers necessary after consulting with the governor. BBO, 1972 (Updated till 1995), Section 9 (1). It gave the power to the government to do anything, even at the time of resolution of conflict. The participation of central bank in resolution of conflict has been improved by including a council for the co-ordination of fiscal, monetary and exchange rate policies, BBAA, 2003, Section 9 A.
	C1. Lending to the government 1. Provision of Lending	Yes permitted and there is no legal limit mentioned. BBO, 1972, Section 16 (9) and (18) (e) mentions about the loan and public debt management but does not mention any limit. Also in 2003 amendments it is mentioned that The Coordination council shall—meet for the purpose of clauses (a) and (b) before the finalization of the budget to determine the extent of public sector borrowing taking into account..... BBAA, 2003, Section 9 (2) (c)
	C2 Terms of lending	The coordination council shall--.....consider limits of the government borrowing as revised from time to time in the meetings to be held before and after passage of the annual budget. BBAA, 2003, Section 9 A (2) (e). But, in section 20 (2) (c) and (3) it refers that in case of public debt management the decision of the government shall be final
	C3 Maturity of loans	Within six months the making to the Government of advances repayable in each case not later than three months from the date of the making of the advance; [BBO, 1972, Section 16 (9)]

	C4 Interest rates on loan	Interest rate on loan is not mentioned. This situation is considered better than no interest on loan.
6. Transparency and Accountability	a. Objectives of the bank has the following features	<p>i. Written objective Since 2003, the bank has written objectives. The broad objectives of the Bank are: a) To regulate the issue of the currency and the keeping of reserves; b) To manage the monetary and credit system of Bangladesh with a view to stabilizing domestic monetary value; c) To preserve the par value of the Bangladesh Taka; d) To promote and maintain a high level of production, employment and real income in Bangladesh; and to foster growth and development of the country's productive resources for the national interest; [BBAA, 2003].</p> <p>ii. Clear priority in the objectives There was no priority among the objectives of BB, however since 2006 it has slowly focused on price stability as the most important objective.</p>
	b. Communication strategy	<p>i. Policy Explanation Providing policy explanation in public was not a regular event for BB before 2006. However, since 2006 monetary policy is announced in a press conference twice a year. Governor announces other policies as well in a regular basis.</p> <p>ii. Publication of minutes The minutes of any meeting of BB has never been published and there is no legal requirements as such.</p>
	c. Accountability of the Governor/ CEO	<p>Government prior to 2003 Government and Parliament since 2003 Being a member of the Co-ordination council, the governor is accountable to the government. Though its accountability status has been improved slightly as...The Governor shall at least once a year or at any other instance, if so summoned appear before the Parliamentary Committee on Finance to report on the monetary policy and of other activities of the Bank and to answer questions BBAA, 2003, Section 38 A.</p>
	d. Is the central bank activities are audited?	<p>Yes, External auditor Not less than two Auditors shall be appointed and their remuneration fixed by the government. Should hold office not exceeding one year and eligible for reappointment. BBO, 1972, Section 65 (1) and (2). Government may at any time appoint the Comptroller and Audit General or such Auditors as it deems fit to examine and report upon the accounts of the Bank. BBO, 1972, Section 66</p>

CBIG Index Construction of Reserve Bank of Australia (1991-2013)

<i>CBIG</i>	<i>Variable</i>	<i>Description</i>
1. Legal	a. Term of office of governor/CEO	7 years and eligible for reappointment (Reserve Bank of Australia 1959e) [RBA Act 1959, Section 24 (1) (b)]
	b. Legal power to appoint of Governor/ CEO	Appointed by Treasurer [RBA Act 1959, Section 24 (1) (a)] The Governor and Deputy Governortheir appointments will be made by the Governor-General in Council, and could be terminated only with the approval of each House of the Parliament in the same session of Parliament (Reserve Bank of Australia 2007).
	c. Dismissal of Governor/ CEO	Dismissed by Treasurer up to 6 December 2007, [RBA Act 1959, Section 25] The position of the Governor and Deputy Governor will have their level of statutory independence raised to be equal to that of the Commissioner of Taxation and the Australian Statistician. As such, their appointments will be made by the Governor-General in Council, and could be terminated only with the approval of each House of the Parliament in the same session of Parliament (Reserve Bank of Australia 2007).
	d. Reappointment of Governor	Yes, there is provision of reappointment of Governor
	e. Regulatory body has been separated from central bank	Yes, but prior to 1998 RBA was responsible for supervising the activities of all deposit taking institutions. In July 1998, the responsibility was transferred to Australian Prudential Regulatory Authority (APRA). [http://www.rba.gov.au/AboutTheRBA/History] (Reserve Bank of Australia 1959d)
2. Political	a. Turnover of Governor / CEO	Not political, since 1960 all governors completed their 7 years term of office. The turnover of the Governor is not related to the turnover of the government. See table below.
	b. Members of the Management board of the Bank	Out of the total 9 members, 2 are government officials [RBA Act 1959, Section 14 (1)]
	c. CEO/Governor hold other office in the government?	No, he/she does not, [RBA Act 1959, Section 25]

3. Price stability objective	a. Bank Objective(s)	<p>It is the major or only objective of the bank since 1993</p> <p>Price stability was one objective with other compatible objectives prior to 1993. In 1993, the objective of price stability was outlined publicly by the then Governor, Mr. Bernie Fraser, as a rate of inflation, which was held to an average of 2-3 per cent over a period of years (Stevens 1999) and [RBA Act 1959, Section 10(2)] and “Price stability is a crucial precondition for sustained growth in economic activity and employment” [Statement on the conduct of monetary policy, 1996]</p>
	b. Inflation targeting	<p>Yes, Independently by CB since 1993</p> <p>Hence I remain happy to claim that inflation targeting in Australia began about ten years ago in the first half of 1993. (Stevens 2003). The central bank then got more aggressive in 1988-89 and raised rates (interest) to 18% to fight an economic boom and asset price inflation in the property sector which landed the economy in a deep recession, the reserve bank made a critical decision to keep rates higher for longer and to keep the economy running “at a subdued pace”, as the then governor, Bernie Fraser, put it, in order to “grind inflation out of the system” (Paul Keating’s description) (Bell 2004).</p>
	c. Interest rate setting	<p>Yes, targeting done (Bell 2004).</p> <p>Decision of the Bank Board to change interest rates are communicated publicly, usually on the day following the meeting.</p> <p>[http://www.rba.gov.au/MonetaryPolicy/about_monetary_policy.html] (Reserve Bank of Australia 1959a)</p>
4. Exchange Rate Policy	a. Intervention of foreign exchange market done by whom?	<p>Central bank (Reserve Bank of Australia 1959b) [http://www.rba.gov.au/Education/exchange_rate.html]</p>
	b. Foreign exchange market regulations done by whom?	<p>Government (Reserve Bank of Australia 1959b) [http://www.rba.gov.au/Education/exchange_rate.html]</p>
	c. Who decides borrowings in foreign exchange?	<p>Central bank (Reserve Bank of Australia 1959b) [http://www.rba.gov.au/Education/exchange_rate.html]</p>

5. Monetary policy and deficit financing	a. Who is responsible for monetary policy formulation?	The formulation of monetary policy is the primary responsibility of the Reserve Bank Board. [http://www.rba.gov.au/MonetaryPolicy/about_monetary_policy.html]
	b. Who has the final word in resolution of conflict?	Government (Governor –General) has the final word Difference of opinion with Government on questions of Policy (1) The Government is to be informed of the Bank's policy as follows: (a) the Reserve Bank Board is to inform the Government, from time to time, of the Bank's monetary and banking policy; (b) the Payments System Board is to inform the Government, from time to time, of the Bank's payments system policy. (2) In the event of a difference of opinion between the Government and one of the Boards (the relevant Board) about whether a policy determined by the relevant Board is directed to the greatest advantage of the people of Australia, the Treasurer and the relevant Board shall endeavour to reach agreement.(3) If the Treasurer and the relevant Board are unable to reach agreement, the relevant Board shall forthwith furnish to the Treasurer a statement in relation to the matter in respect of which the difference of opinion has arisen. (4) The Treasurer may then submit a recommendation to the Governor-General, and the Governor-General, acting with the advice of the Federal Executive Council, may, by order, determine the policy to be adopted by the bank. [RBA Act 1959, Section 11].
	C1. Lending to the government 1. Provision of Lending	Not permitted
	C2 Terms of lending	Controlled by the bank
	C3 Maturity of loans	Within 6 months
C4 Interest rates on loan	There is an agreement in 1986 between the Treasury and Reserve Bank about not to borrow from central bank. This agreement means that there is a separation between monetary policy and the Government's debt management.....It is not possible to ensure that the Australian government's need for funds are exactly matched day-by-day by issue of securities to the market. For one thing, issues generally occur only weekly. To overcome	

		<p>this mismatch between daily spending and financing, the Treasury keeps cash balances with the Reserve Bank that act as a buffer. The Reserve bank also provides an overdraft facility for the Government that is used to cover periods when an unexpectedly large mismatch exhausts cash as well as imposing a market related interest rate on the facility. The overdraft is used infrequently, generally to cover unforeseen shortfalls in cash balances, and is extinguished at the next Treasury note.</p>
<p>6. Transparency and Accountability</p>	<p>a. Objectives of the bank has the following features</p>	<p>i. Written Missions/Goals/Functions/Objectives Yes</p> <p>ii. Clear priority in the objectives Yes</p> <p>Reserve Bank Board's obligations with respect to monetary policy are laid out in Sections 10(2) and 11(1) of the Act. Section 10(2) of the Act, which is often referred to as the Bank's 'charter', says: 'It is the duty of the Reserve Bank Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank ... are exercised in such a manner as, in the opinion of the Reserve Bank Board, will best contribute to: (a) the stability of the currency of Australia;(b) the maintenance of full employment in Australia; and (c) the economic prosperity and welfare of the people of Australia.' (Overview of Functions and Operations, RBA) In 1993, the objective of price stability was outlined publicly by the then Governor, Mr. Bernie Fraser, as a rate of inflation, which was held to an average of 2-3 per cent over a period of years (Stevens 1999).</p>
	<p>b. Communication strategy</p>	<p>i. Policy Explanation Yes</p> <p>ii. Publication of minutes Minutes are kept but not published The minutes of RBA board meeting held on 2 October 2007 were first published in 6 November, 2007 (Reserve Bank of Australia 2007)</p>

		Since, January 1990, each policy has been announced by a media release which set out the change on the cash rate target and the [http://www.rba.gov.au/AboutTheRBA/governance and accountability of the rba.html] (Reserve Bank of Australia 1959c)
	c. Accountability of the Governor/ CEO	The Reserve Bank of Australia is accountable to the Parliament. Since 1996, the Governor and senior officers have appeared twice yearly before the House of Representative. [http://www.rba.gov.au/AboutTheRBA/governance and accountability of the rba.html] The bank's (RBA's) governor began appearing before a parliamentary committee annually in 1991, and biannually from 1996, as part of the process of greater openness and disclosure) (Beeson and Bell 2004)
	d. Is the central bank activities are audited?	Yes, External auditor External auditor audits the activities of RBA

Appendix B

Years	1. CBIGLeg										2. CBIGPol										3. CBIGFStab										4. CBIGForx										5. CBIGMomPol										6. CBIGAccTrans										CBIG
	1a	1b	1c	1d	1e	2a	2b	2c	2d	2e	3a	3b	3c	3d	3e	4a	4b	4c	4d	4e	5a	5b	5c	5d	5e	5f	5g	5h	5i	6a1	6a2	6b1	6b2	6c	6d																										
	APVL										AVGZ										AVGZ										APVL										AVG5																				
1991	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0	0.5	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0.17	0.29															
1992	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0	0.5	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0.17	0.29																
1993	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0	0.5	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0.17	0.29																	
1994	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0.17	0.31																		
1995	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0.17	0.31																			
1996	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0.17	0.31																				
1997	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0.17	0.31																				
1998	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0.17	0.31																				
1999	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0.17	0.31																				
2000	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0.17	0.31																				
2001	0.6	0	0	0	1	0.22	0	0.67	1	0.56	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0.17	0.31																				
2002	0.6	0	0	0	1	0.22	1	0.67	1	0.89	0.33	0.5	0.5	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.17	0.31																				
2003	0.6	0	0	0	1	0.22	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0.29	0.47																				
2004	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0.33	0.46																					
2005	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0.33	0.46																					
2006	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																					
2007	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																				
2008	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																				
2009	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																				
2010	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																				
2011	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																				
2012	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																				
2013	0.4	0	0	0	1	0.28	1	1	1	J	0.67	0.5	0.5	0.56	1	0	0	0	0	0.23	0.67	0.5	0	0	0	0	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.53																				
Average						0.19				0.93				0.48						0.16																				0.39	0.48																				

Years	CBIG Index calculation of Reserve Bank of Australia																																							
	1. CBIGLeg						2.CBIGPol						3. CBIGPSub						4. CBIGForx						5. CBIGMonPol						6. CBIGAccTrans									
	1a	1b	1c	1d	1e	AVR	2a	2b	2c	AVR	3a	3b	3c	AVR	4a	4b	4c	4d	AVR	5a	5b	5c	5d	5e	6a	6b	6c	6d	6e	6f	6g	6h	6i	AVR	CBIG					
					GI				G2				GI						GI															OS						
1991	1	0	0	0	1	0.4	1	1	1	1.00	0.67	0	1	0.56	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0	1	0.83	1	1	0.83	1	1	0.75	0.70
1992	1	0	0	0	1	0.4	1	1	1	1.00	0.67	0	1	0.56	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0	1	0.83	1	1	0.83	1	1	0.75	0.70
1993	1	0	0	0	1	0.4	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0	1	0.83	1	1	0.83	1	1	0.75	0.75
1994	1	0	0	0	1	0.4	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0	1	0.83	1	1	0.83	1	1	0.75	0.75
1995	1	0	0	0	1	0.4	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0	1	0.83	1	1	0.83	1	1	0.75	0.75
1996	1	0	0	0	1	0.4	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.77
1997	1	0	0	0	1	0.4	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.77
1998	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
1999	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2000	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2001	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2002	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2003	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2004	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2005	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2006	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.86	0.81
2007	1	0	0	1	1	0.6	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.95	0.83
2008	1	0	0.33	1	1	0.67	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.95	0.85
2009	1	0	0.33	1	1	0.67	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.95	0.85
2010	1	0	0.33	1	1	0.67	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.95	0.85
2011	1	0	0.33	1	1	0.67	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.95	0.85
2012	1	0	0.33	1	1	0.67	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.95	0.85
2013	1	0	0.33	1	1	0.67	1	1	1	1.00	1	1	1	1.00	1	0	1	0.67	1	0	1	1	1	1	1	1	1	1	1	0.5	0.67	1	0.83	1	1	0.83	1	1	0.95	0.85
Average						0.56				1.00				0.96				0.67															0.83			0.83			0.86	0.80