

Expansion of the Monetary Base and the Accounting Framework of the Bank of Japan (BOJ)

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Background and Purpose of the Study

- * The outstanding balance of the Japanese government bonds (JGBs) has been rapidly increasing since 2001, as has BOJ's holdings of these securities.
- * The expansion of BOJ's balance sheet has been accompanied by an increase of the monetary base. Simultaneously, the amount of JGBs in BOJ's assets has increased faster than ever. While the purchase of JGBs would normally require matching assets, we cannot observe any such consideration on the asset side of the balance sheet of BOJ.
- * According to BOJ's balance sheet, there is an apparent relationship between the expansion of the monetary base and BOJ's treatment of accounting, but we have not yet been able to find any clear explanation for this.
- In this study, we discuss the accounting framework that focuses on the expansion of the monetary base.

Structure of BOJ's Balance Sheet

(unit: hundred million Yen)

Assets		component ratio	Liabilities and Net Assets		component ratio
Account	2015/3/31		Account	2015/3/31	
Gold	4,413	0%	Banknotes	896,733	28%
Japanese Government Bonds	2,697,921	84%	Current deposits	2,015,564	62%
Others	523,343	16%	Total Monetary Base	2,912,297	90%
			Others	284,516	9%
			Total Liabilities	3,196,813	99%
			Net Assets	28,864	
Total	3,225,677	100%	Total	3,225,677	100%

➤ The JGBs occupy 84% of total assets. The monetary base, which consists of the "current deposits" and the "banknotes," occupies approximately 90% of total liabilities.



On the balance sheet, JGBs are the assets that correspond to the monetary base. Thus, it seems that they back up the monetary base.

BOJ's Journal Entries during Monetary Base Expansion ①

- * We direct our attention to the journal entries adopted by BOJ since the introduction of the gold standard.
- * Over the past two years, BOJ has purchased JGBs worth 133 trillion Yen.

In the journal entry, the amount of JGBs in the assets increased on the debit side, while the "Current deposits" increased on the credit side.

(unit : hundred million Yen)

Account (Debit)		Amount	Account (Credit)		Amount
(increase)	JGBs (Assets)	10.1	(increase)	Current deposits (Liabilities)	10.1



BOJ's Journal Entries during Monetary Base Expansion ②

- * The issuance of "Banknotes" has increased by 6 trillion Yen over the last 2 years.
- * On this issuance, the amount shown in the "Current deposits" account decreased while the amount shown in "Banknotes" account increased.
- * This journal entry shows the move of funds within the bank's liabilities from "Current deposits" to "Banknotes".

(unit : hundred million Yen)

Account (Debit)		Amount	Account (Credit)		Amount
(decrease)	Current deposits (Liabilities)	10.1	(increase)	Banknotes (Liabilities)	10.1



The "Current deposits" account and the "Banknotes" account

- Therefore, let us examine the liability attributes from the viewpoint of the accounting framework.

Liability Attribute's Viewpoint and its Reexamination under the Current Economic Conditions

* We examine the nature of the account titles from three different view points:

① The legal viewpoint;

② The change in account balances, as a static economic condition, due to the accounting procedure;

③ The actual economic effect:

We need to clarify the actual condition of the accounting through diverse consideration from these three viewpoints.

① The Legal Viewpoint

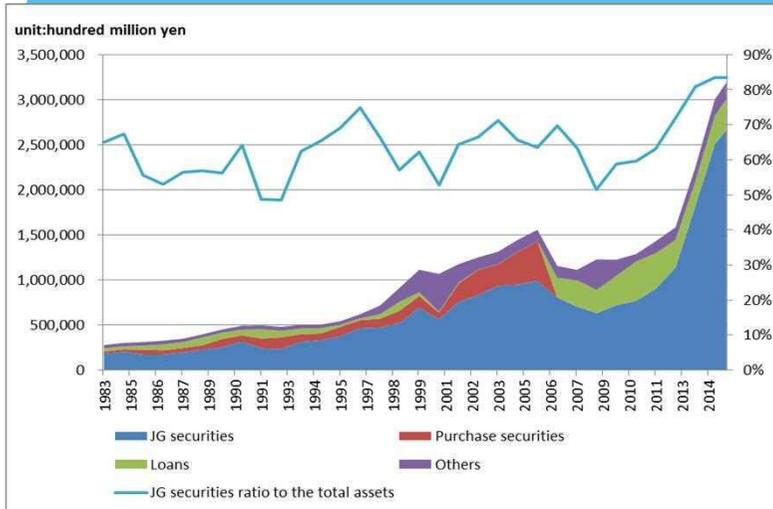
- * We examined all laws and rules of the accounting procedures regarding the "Bank of Japan Act" and the "Accounting Rules of the Bank of Japan".
- * We also examined the Civil Code regarding the debtor and creditor relationship.

The following are the results:

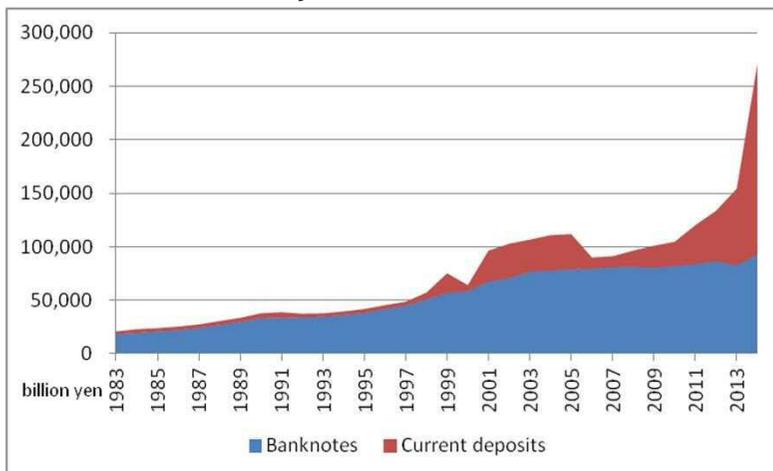
- * When banknotes are "liquidated," BOJ is not obliged to use the assets; the liabilities (current deposits) will increase instead.
- * Financial institutions that have their accounts in BOJ are obliged to hold a certain balance depending on their reserve requirements. These funds are part of the current deposits and are not freely available, and BOJ does not pay interest on these.
- * Besides these required funds, the money placed by the financial institutions with BOJ is freely available and receives interest. The freely available portion of the total current deposits is approximately 90% of the total. Risk avoidance is the primary reason the banks keep funds at BOJ. So, we refer to these current deposit balances as "virtually committed funds (VCF)."
- * **From the legal viewpoint, we cannot say whether the "Banknotes" account or the "Current deposits" account has the liability attribute.**

② The change in the account balances as a static economic condition

BOJ: Account balance change in the assets side



BOJ: Change in the account balances of the monetary base



- The balance of the monetary base accounts has increased corresponding to the increase in the amount of JGBs.
- The main factor for the monetary base increase is the "current deposits" balance increase.



Accounting procedure:

Debit side: "JGBs" increase

Credit side: "Current deposits" increase

This accounting procedure has been repeated.



The balance of both the monetary base and the JGBs has increased rapidly. We cannot confirm any decrease in assets that matches a liquidation of liabilities.



Therefore, from the static economic condition, we cannot say that the monetary base account has the liability attribute.

③ The Actual Economic Effect as an Active Economic Actual Condition 1

- * An entity's liabilities usually generate prospective economic resources. If the expansion of the monetary base matches the economic effect, then we can say that the monetary base accounts, like an entity's liabilities, have the liability attribute.
 - * Dr. Biondi's argument on credit-debt*¹ economy is expressed as the entities' relationship based on the economic process. This relationship as well as economic process appear in the “Flow of Funds Accounts” *² and GDP as an economic result.
- *¹ “Hyman Minsky's Financial Instability Hypothesis and the Accounting Structure of Economy”
- *² The “Flow of Funds Accounts” is a matrix showing financial transactions among various economic entities. It is compiled by the BOJ periodically.

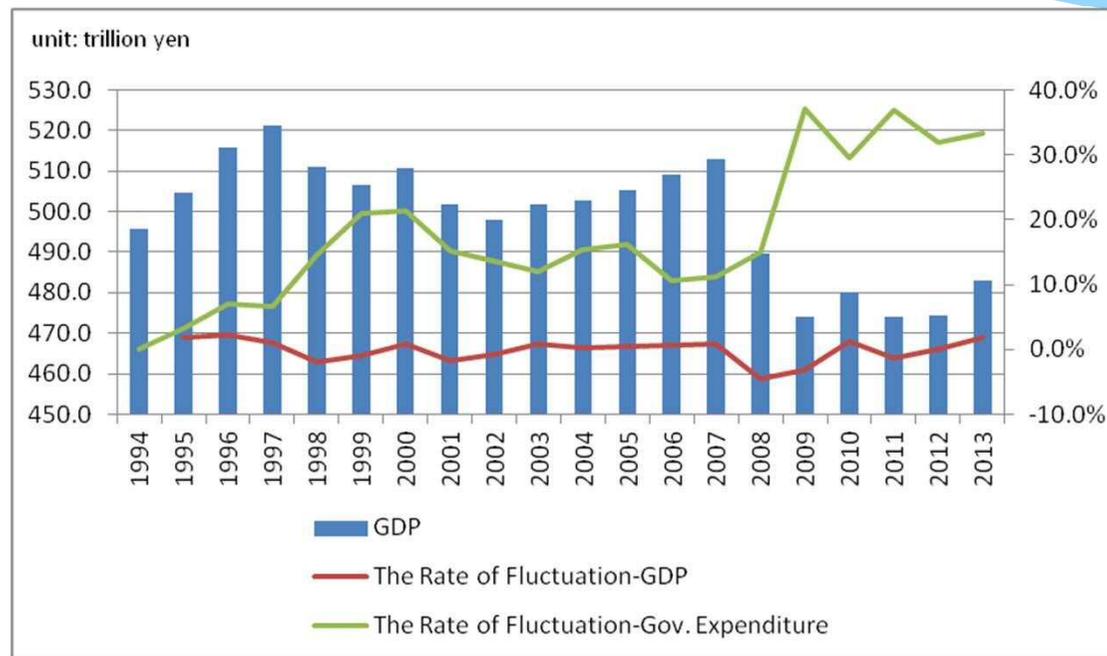


Therefore, we will analyze the relationship between the “Flow of Funds Accounts”* and GDP.

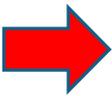
Analysis of the Numerical data on the Flow of Funds Accounts 1

Transition of GDP

Rate of fluctuation of GDP and government expenditure



- * After the decrease in 2008, the GDP remained at a low level and did not expand significantly.
- * The ripple effect of the expansion of government expenditure on GDP was limited.
- * The expansion policy of the government expenditure has been in a deadlock.

 The monetary policy of BOJ plays one of the most important roles in the economy.

Analysis of the Numerical data on the Flow of Funds Accounts 2

Now, we examine whether the expansion of the monetary base had a ripple effect on GDP and increased the actual absolute amount of GDP.

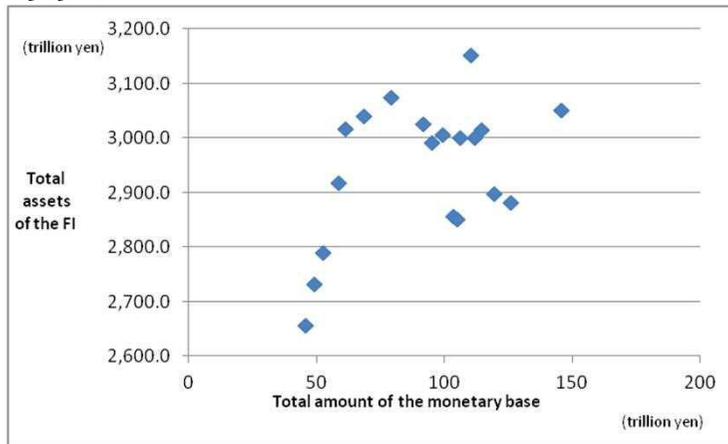
The monetary easing policy was introduced in 2001, and since then, BOJ's monetary policy has largely changed.

→ Therefore, we distinguish the two periods and check the correlation between fluctuation of the monetary base and the total assets of the financial institutions that reflect money supply.

Analysis of the Numerical data on the Flow of Funds Accounts 3

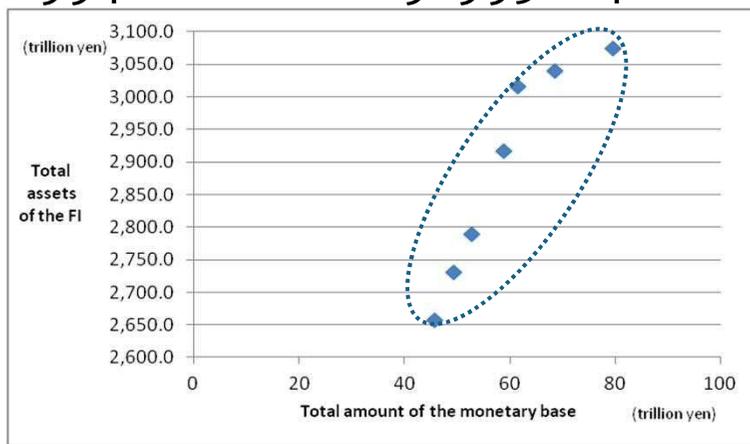
Correlation between the total monetary base amount and the total assets of the financial institutions

1994-2012: Correlation coefficient = 0.344465544

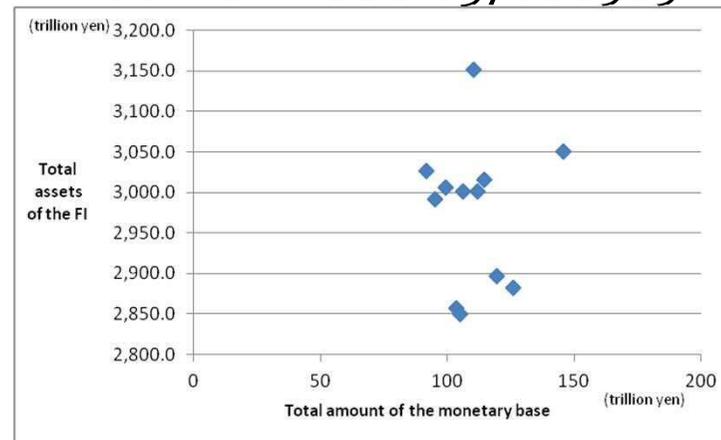


➤ As we can see from the graphs, there was no correlation between the total amount of the monetary base and the total assets of the financial institutions after the introduction of the monetary easing policy in 2001.

1994-2000: CC 0.929950046



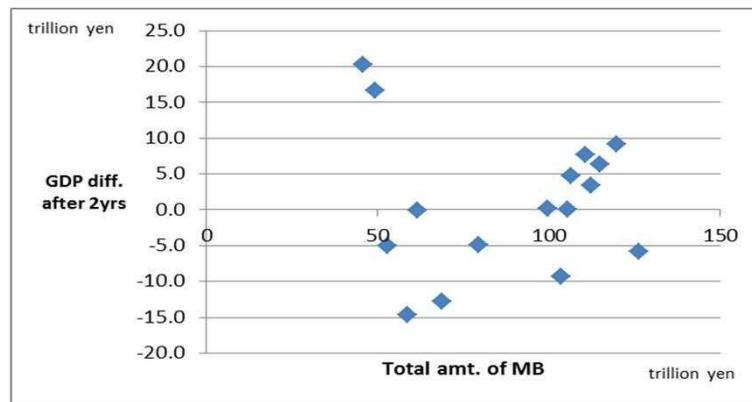
2001-2012: CC 0.037660565



Analysis of the Numerical data on the Flow of Funds Accounts 4

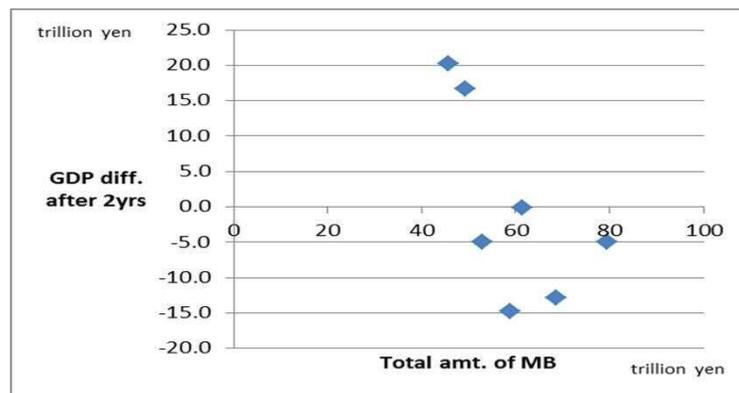
Correlation between the total monetary base amount and changes in the GDP different after 2 years is examined for analyzing the ripple effect.

1994-2010: Correlation coefficient = -0.041412

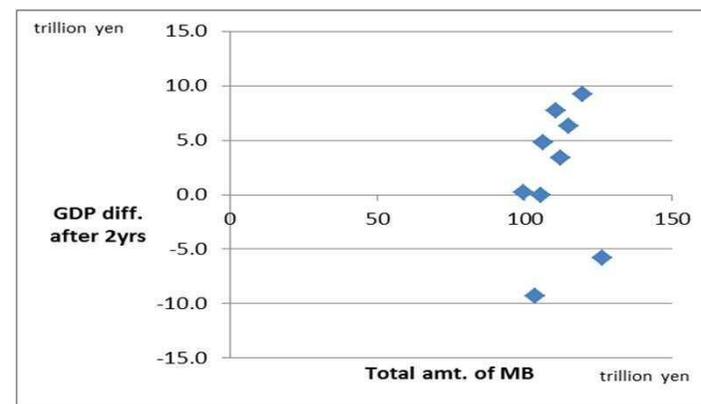


- As we can see from the graphs, there is no correlation between total amount of the monetary base and difference in GDP after 2 years.
- The data for 2008 and 2009 are excluded because of the invalidity of the ripple effect caused by the then global financial crisis.

1994-2000: CC -0.6446150



2001-2010: CC 0.1522098



③ The Actual Economic Effect as an Active Economic Actual Condition 2

Here, we summarize the analysis of the numerical data concerned with the Flow of Funds Accounts:

- We cannot confirm the ripple effect on the whole economy after the transition to the monetary easing policy. In other words, the expansion of the monetary base did not have a corresponding economic effect.
- We cannot say that the monetary base expansion made any significant contribution to the economy as an independent economic activity by BOJ.

We cannot say that the monetary base account (excluding the "Current deposits," which is non-VCF) has the liability attribute from the active economic actual condition.

The restrained "Current deposits" account, "Banknotes" account, and their liability attribute

- * We examined the accounting nature of the "(VCF) current deposits" account and the "banknotes" account, which constitute the monetary base, from the three viewpoints as mentioned earlier.
- * As a result, **we have not been able to confirm their liability attribute.**

Beyond the Denial of the Liability Attribute

- * Let us consider the reasons why the "(VCF) current deposits" account and the "banknotes" account, which do not have the liability attribute, are able to classify as a liability of BOJ.
- * We focus on the cross-accounts of the journal entries.

(unit : hundred million yen)

The Point	Account (Debit)		Amount	Account (Credit)		Amount
	(decrease)	Current deposits (Liabilities)	10.1	(decrease)	Banknotes (Liabilities)	10.1
	Account (Debit)		Amount	Account (Credit)		Amount
	(increase)	JG securities (Assets)	10.1	(increase)	Current deposits (Liabilities)	10.1

Increase in the "Banknotes" Account

- * Please refer to the hand-out slide number 19.
- * The cross-account of the increase in **the** "Banknotes" account is the "(non-VCF) current deposits" account.
- * The "(non-VCF) current deposits" account is an obligation.
- * The equivalent of the liquidation of this obligation is Banknotes, which has no liability attribute.
- * Therefore, BOJ **is limitlessly released from liquidation** regarding the "(non-VCF) current deposits".
- * In fact this is equivalent to debt forgiveness.
- * **The earnings from the debt forgiveness have transferred to the liabilities side and would be extended for an indefinite time.**

Reduction of the Journal Entries 1

before the reduction

(unit : hundred million Yen)

Account (Debit)		Amount	Account (Credit)		Amount
(decrease)	Current deposits (Liabilities)	10.1	(increase)	Banknotes (Liabilities)	10.1

after the reduction

limitless release from the liquidation

(unit : hundred million Yen)

Account (Debit)		Amount	Account (Credit)		Amount
(decrease)	Current deposits (Liabilities)	10.1	(increase)	Earnings from the debt forgiveness (Revenues)	10.1
(decrease)	Earnings from the debt forgiveness (Revenues)	10.1	(increase)	Banknotes (Liabilities)	10.1

deferred profit

Increase in the "(VCF) current deposits" Account

- * Please refer to the hand-out slide number 21.
- * The cross-account of the "(VCF) current deposits " account increase is the "JGBs" account.
- * As mentioned earlier, JGBs are an asset which is called securities.
- * The purchase of JGBs results in an increase in “current deposits”. However, the “(VCF) current deposits” is not be withdrawn not only objectively but also subjectively.
- * Then, BOJ is **released without limitation from the liquidation** regarding the consideration of “JGBs“ acquisition.
- * The fact that BOJ is not obliged **to do so** is equivalent to the beneficiary asset gains.
- * The beneficiary asset gains have transferred to the **“(VCF) current deposits” account and would be extended for an indefinite time.**

Reduction of the Journal Entries 2

before the reduction

(unit : hundred million yen)

Account (Debit)		Amount	Account (Credit)		Amount
(increase)	JGBs (Assets)	10.1	(increase)	Current deposits (Liabilities)	10.1

after the reduction

limitless release from
the payment obligation

(unit : hundred million yen)

Account (Debit)		Amount	Account (Credit)		Amount
(increase)	JGBs (Assets)	10.1	(increase)	Beneficiary asset gains (Revenues)	10.1
(increase)	Beneficiary asset gains (Revenues)	10.1	(increase)	Current deposits (Liabilities)	10.1

deferred profit

Conclusion

- * ① The "Banknotes" account and "(VCF) current deposits" account are recorded as liabilities. However, these cannot be considered liabilities in the accounting terms from a legal and an economic viewpoint.
- * ② The accounting nature of the 2 accounts of ① is the deferred profit accompanying with the issuance of the "Banknotes" and the funds-supplying operation. The accounts for deferred profit in this way are conventionally called "allowances for profit reserve".
- * ③ It is illegal to record the "allowances for profit reserve" according to Japanese accounting standards. However, we can at least say that the framework of the accounting by BOJ allows justification of recording the deferred profit by using the category of liability.
- * ④ Moreover, the monetary base has indicated as if it has been increased arbitrarily by the government and BOJ through this accounting framework.