Economic Recovery Plan for Japan

<u>Plan Summary</u>

This paper recommends monetary reform as the best go forward economic recovery plan for Japan. The recommended reform is to convert to a full reserve monetary system based on a GDP index standard. The monetary intermediation cost of the Bank of Japan (BOJ) is at least 98.7% inefficient (1-Bank Reserve Requirement) and is on the order of 3¼% of GDP per year, compounded over 60% since 1984 and over 80% since 1956, that could be more efficiently handled by a full reserve credit banking system, development of 100% depositor owned institutions to exclusively hold demand deposits and direct issuance of new money creation, known as Seigniorage, to the Japanese people instead of the Bank of Japan member banks.

It is believed that with the discovery of the Modigliani-Miller Financial Theorem in 1958 of the irrelevance of capital structure that proof of the superiority of the full reserve system has existed because of its lower monetary intermediation cost. There is no credit intermediation loss with a full reserve system and there would be a more efficient allocation of economic returns reducing and/or eliminating the current wealth transfer disparity caused by the fractional reserve system. The improvement to the Japanese economy from conversion is expected to be the approximate amount of the reduced monetary intermediation cost, on the order of 3¼% of GDP per year from a 98.7% lower monetary intermediation cost (1-reserve requirement), improve the balance sheet of Japan on the order of ¥742.8 trillion as of fiscal year 2011 and restore on the order of seven million jobs.

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To the people of Japan

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1. Introduction

Economic recovery begins with conversion to a full reserve monetary system and direct issuance of new money creation, known as Seigniorage, to the Japanese people based on a GDP growth standard instead of Bank of Japan member banks.

The monetary intermediation cost of the Bank of Japan is at least 98.7%[1] inefficient and is on the order of 3¼% of GDP per year[2], compounded over 60% since 1984 and over 80% since 1956, that could be more efficiently handled by a full reserve credit banking system, development of 100% depositor owned institutions to exclusively hold demand deposits and direct issuance of new money creation to the Japanese people. As will be shown in Section 3 there is no credit intermediation loss with a full reserve system and there would be a more efficient allocation of economic returns reducing and/or eliminating the current wealth transfer disparity caused by the fractional reserve system.

I. Intermediation Cost using Current Bank of Japan Monetary System		
Bank of Japan Monetary Issuance System	**$ Amount**	**Efficiency of Monetary Increase**
1. Bank of Japan acquires government issued debt	¥1,000,000	1.3%
2. Bank of Japan Reserve Requirement (est.)[1]	1.3%	
3. Money Supply Increase via Bank of Japan Loans	¥76,923,077	100.0%
4. Bank of Japan's net Increased Loans (Intermediation Cost)	¥75,923,077	98.7%

TABLE 1 DATA SOURCE: Bank of Japan Monetary Intermediation Cost Inefficiency Estimate, Attachment 1.

II. Direct Monetary Expansion System to People using Government Entity		
Direct Monetary Issuance System (Possible Ministry Economy,Trade&In	**$ Amount**	**Efficiency of Monetary Increase**
1. People issued bills directly from government (METI)	¥1,000,000	100.0%
2. Japanese people portion of issued bills	100.0%	
3. Money stock increase to people via direct government issue	¥1,000,000	100.0%
4. Bank of Japan's net increased loans (Intermediation Cost)	¥0	0.0%

TABLE 2 DATA SOURCE: Bank of Japan Monetary Intermediation Cost Inefficiency Estimate, Attachment 1.
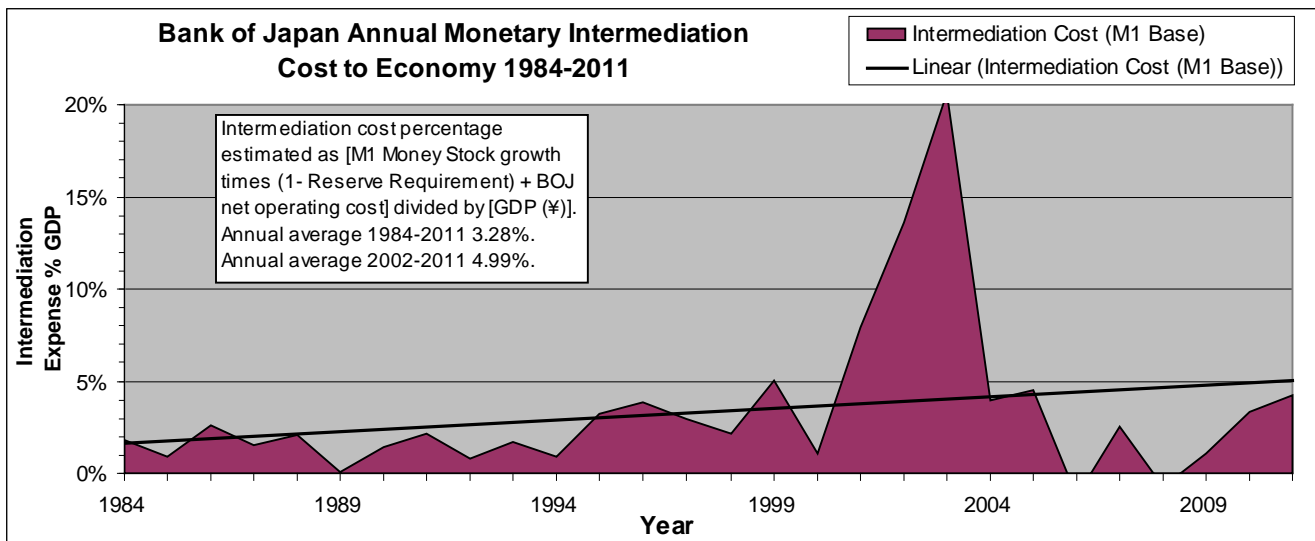

CHART 2 DATA SOURCE: BOJ Annual Monetary Intermediation Cost 1984 to 2011 using M1 Money Stock, Attachment 5.

[1] Bank of Japan Monetary Intermediation Cost Inefficiency Estimate, Attachment 1.
[2] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.

BOJ Monetary Intermediation Cost 1984-2011	¥ Billions	% Percent
Economic (GDP) earnings 2011 w/o BOJ intermediation expense	¥469,545.0	100.0%
Economy earnings with BOJ Intermediation expense deducted	¥187,702.6	40.0%
BOJ Intermediation Expense to Non Bank Economy since 1984	**¥281,842.4**	**60.0%**
Bank of Japan Intermediation costs, primarily monetary expansion inflation, estimated to have wealth transferred approximately 60% of economic system returns to banking sector from 1984 to 2011.		

TABLE 3 DATA SOURCE: Bank of Japan Compounded Monetary Intermediation Cost 1984 to 2011, Attachment 6.

It is believed that with the discovery of the Modigliani-Miller Financial Theorem[3] in 1958 of the irrelevance of capital structure that proof of the superiority of the full reserve system has existed because of its lower monetary intermediation cost. The improvement to the Japanese economy from conversion is expected to be the approximate amount of the reduced monetary intermediation cost, on the order of 3¼% of GDP per year[4], improve the balance sheet of Japan on the order of ¥742.8 trillion[5] as of fiscal year 2011 and restore on the order of seven million jobs[5].

The chart below shows the impact of fractional reserve monetary leverage, which adds risk to the economic system in the form of increased variability of returns but does not change returns to the system, shown below as increased amplitudes of the business cycle. The compounding intermediation cost of the Bank of Japan debt based monetary system is also shown gradually increasing in size that is actually a reduction to system returns.
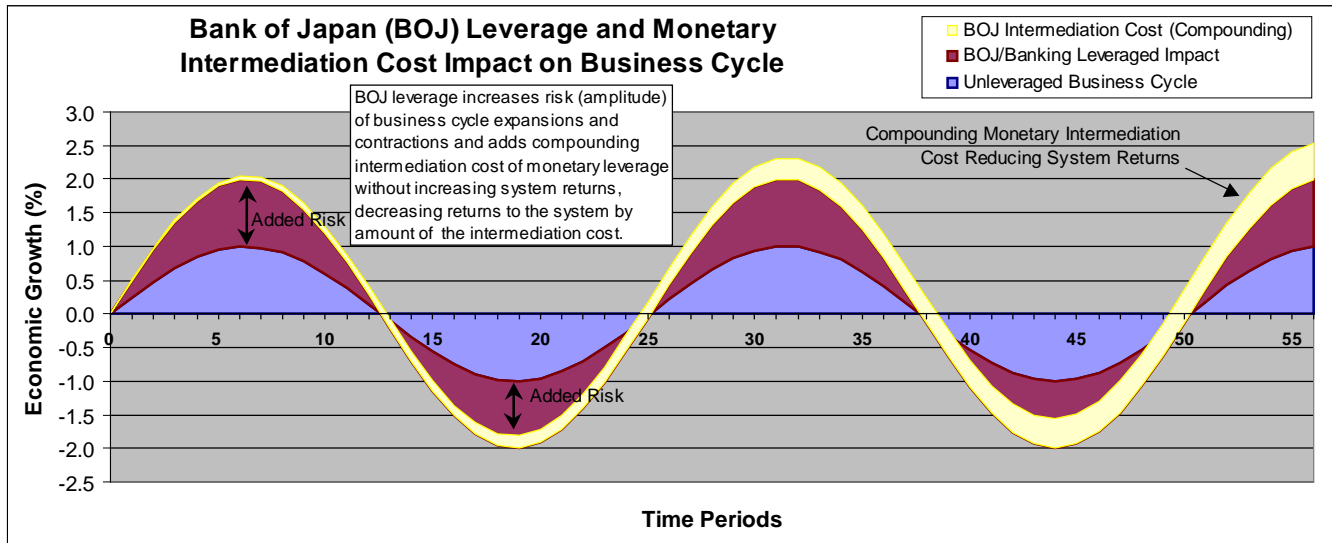
CHART 1 DATA SOURCE: Business Cycle with Leverage and Intermediation Added using Excel Sine Wave Graph.

It is not believed the added risk from the fractional reserve lending or leveraged credit system can show that it adds real return to the economic system based on the M&M Theorem of capital structure irrelevance and therefore Japan should replace it with a more efficient full reserve system that can be operated at a much lower intermediation cost.

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[3] Modigliani-Miller Theorem from "The Cost of Capital, Corporation Finance and the Theory of Investment", *American Economic Review*, 48: 261-297, June 1958 and Merton H. Miller "Do the M&M propositions apply to banks?", *Journal of Banking & Finance* 1995. References 18 and 19.
[4] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.
[5] Bank of Japan Monetary Intermediation Cost Impact on Economy and Jobs, Attachment 11.

A banking business model based on full reserve financial intermediation, time matched funding spread lending, is not a new concept. It has had historical support from at least five previous Nobel Prize winners, Milton Friedman, 1976, James Tobin, 1981, Maurice Allais, 1988, Merton Miller, 1990 and Frederick Soddy, 1921, a former Secretary of Agriculture and Vice President of the United States, Henry Wallace, at least one prominent national central banker, Mervyn King[6], retiring governor of the Bank of England and numerous distinguished economists and financial writers listed in Attachment 13 including Irving Fisher, one of the foremost economists of the first half of the 20th Century.[7]

Economic recovery with a 100% reserve system and GDP based monetary standard would result in a 98.7%[8] lower monetary intermediation cost, less structural leverage risk, a more stable economy, more efficient allocation of capital and a higher standard of living for all Japanese. The economy would still be subject to the business cycle with a full reserve system but overall the amplitude of the cycle would be reduced and the reduced monetary intermediation cost would improve Japanese economic performance on the order of 3¼% of GDP per year.

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[6] "Banking: From Bagehot to Basel, and Back Again", Buttonwood Gathering Speech October 25, 2010, Reference 16.
[7] Allen, William R., "Irving Fisher and the 100 Percent Reserve Proposal", *Journal of Law and Economics* vol. XXXVI (October 1993), Reference 1.
[8] Bank of Japan Monetary Intermediation Cost Inefficiency Estimate, Attachment 1.

2. New Money Creation Monetary Intermediation Cost Issue

When the Bank of Japan (BOJ) creates new money there is a general belief that it is made out of "nothing" or "thin air", this is not true, it comes out of the existing wealth stock. Money is a medium of exchange and represents value in trade. The aggregate value of money equals total wealth divided by the total stock of money, assuming the money is accepted as a medium of exchange. If new money is created the total wealth has not changed so the value of the money must be reduced BUT first use and control of the new money is directly vested in the BOJ indicating a transfer of wealth to the BOJ every time new money is created.

The Japanese economic system is constantly loosing and transferring wealth to the BOJ to sustain it, not "thin air" or the government as is widely believed. In this process not only does the BOJ dilute and transfer wealth to itself from the other sectors of the economy but charges the economy additional interest from which the wealth was diluted and taken. The economy has no benefit from this structure, which is exclusively a transfer of wealth within the system without adding value to the system as a whole.
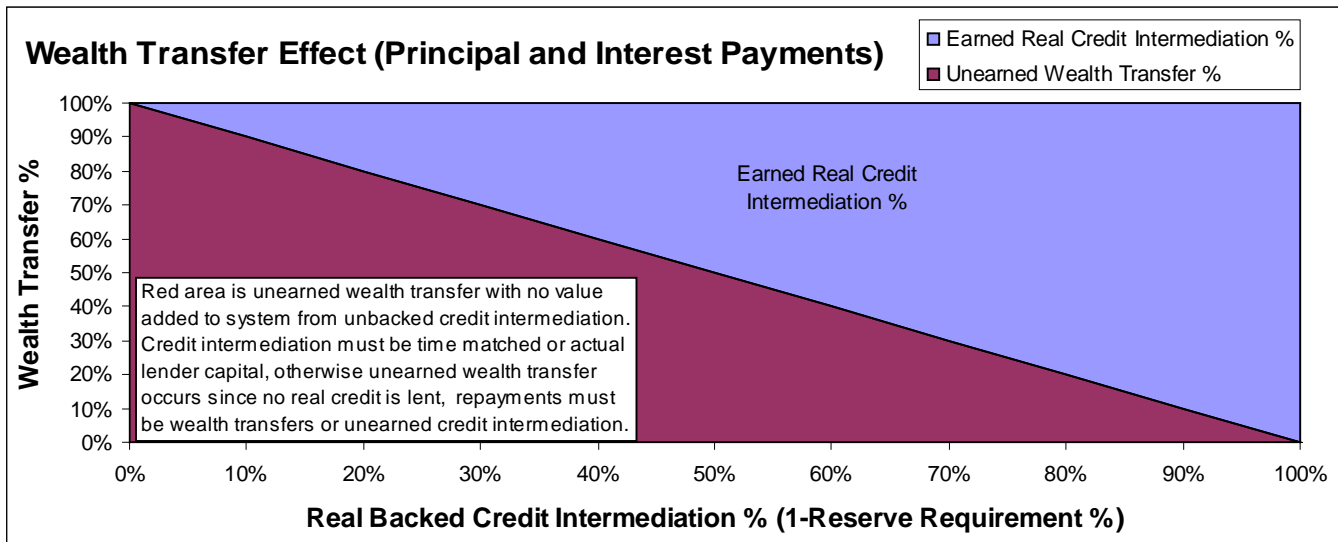
CHART 3 DATA SOURCE: Fractional Reserve Monetary Wealth Transfer and Earned Intermediation Schedules, Attachment 2.

Bank of Japan member banks utilizing a 1.3% reserve requirement[9] are 98.7% (1 - applicable reserve requirement) beneficiaries of money stock increases by virtue of their first use of the new money created with the people and their elected government involuntarily having their wealth transferred to the banking sector by the same amount since no new wealth has been created. The primary driver of wealth inequality in Japan is the constant fractional reserve wealth transfer to the monetary issuing source.

BOJ intermediation in the monetary creation process is unnecessary and reduces the overall return to the economic system by the amount of its intermediation cost, approximately 3¼% of GDP per year[10].

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[9] Reserve Requirement for Bank of Japan Member Banks is 1.3% over ¥1.2 Trillion Yen, Reference 3.

[10] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.

3. Confounding the Fractional Reserve System with Credit Intermediation

The fractional reserve banking system has been confounded with credit intermediation with material adverse effects on the economy because fractional reserve lending is unearned wealth transfer whereas full reserve lending is earned credit intermediation. The confounding is that these two things appear so closely associated that they are assumed causally related or the same thing.

If fractional reserve lending and credit intermediation were causally related or the same thing increasing fractional reserve lending would increase credit available to the system and for temporary periods this can appear to be the case but it is known from the M&M Theorem that leverage does not change the value of the system so the credit of the system cannot be increasing and must be limited and return to the base wealth of the system itself.

Fractional reserve lending has never added value to the system. The entire history of fractional reserve lending will never be able to show that it added value without wealth transfer outside of the lending process to sustain it. It is virtually impossible to see the confounding defect of the system mixing the appearance of true credit lending with the fractional reserve system of lending unbacked credit, effectively nothing. The only thing happening is wealth transfer via inflation and direct bailout from the rest of the system to the money creation fractional reserve lending source with no increase in system value. **Since the fractional reserve lending source appears to add value via profits it is assumed to add value to the economic system under the profit motive theory. The profit is 98.7%+ inflationary wealth transfer from first use of new money creation. The only profit fractional reserve lending has ever made is inflationary wealth transfer from first use of new money creation during expansions, foreclosure wealth transfer during credit contractions and direct bailout wealth transfer and has reduced the returns to the economic system by the amount of its intermediation cost.** To the extent commercial banks may have used time matched funding and lending of their own capital some true credit intermediation was added to the system, but it is small on a relative basis at approximately 1.3% (1 – Bank Reserve Requirement).

In the fractional reserve lending system wealth transfer is (Loan Principal + Interest) x (1- Reserve Requirement). Inflation is the Principal portion of wealth transfer. In a 1.3% reserve system, 98.7% of the initial loan is inflation wealth transfer with interest repayment as 98.7% direct wealth transfer without added inflation. In a 100% reserve system there is no inflationary wealth transfer and 100% of the interest earned is true credit intermediation.

An example of direct lending compared to fractional reserve and full reserve lending follows to show the impact of fractional reserve wealth transfer and true credit intermediation. It is composed of Farmer A with a field that a crop is grown on, Farmer B with a Tractor that is rented to Farmer A and a Financial Intermediary that can lend Farmer A the amount of the tractor rent.

Initial Conditions

Item	Value (Initial Condition)
Crop Value	¥ 150,000
Tractor Rent (Farmer B)	¥ 50,000
Loan, if applicable	¥ 50,000
Loan Interest to Rent Tractor (5%)	¥ 2,500

I.   Direct Lending (100% Full Reserve Lending - Farmer B is Lender of Real Credit - Tractor)

I. No Financial Intermediary (Real Asset Tractor Lending)				
	Farmer A	Farmer B	Intermediary	Total
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000
Tractor Rent	-¥50,000	¥50,000		¥0
Sell Crop	¥150,000			¥150,000
End (Cash)	¥149,675	¥99,675	¥650	¥250,000
Direct Net Earnings	¥100,000	¥50,000	¥0	¥150,000
% Earnings	66.67%	33.33%	0.00%	100.00%

TABLE 4 DATA SOURCE: Fractional Reserve Analysis with 1.3% Reserve Requirement, Attachment 3(a).

II.   Fractional Reserve Lending (1.3% Reserve Requirement Financial Intermediation)

II. With 1.3% Reserve Financial Intermediation Added (1.3% Real Backing)				
	Farmer A	Farmer B	Intermediary	Total
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000
Direct Net Earnings(Above)	¥100,000	¥50,000	¥0	¥150,000
Loan	¥50,000		¥50,000	¥50,000
Loan Interest	-¥2,500		¥2,500	¥0
Pay Back Loan	-¥50,000		¥50,000	¥0
End (Cash)	¥147,175	¥99,675	¥52,500	¥299,350
Net Earnings	¥97,500	¥50,000	¥51,850	¥199,350
% Earnings	48.91%	25.08%	26.01%	100.00%
Wealth Transfer=(Principal+Interest) x (1- RR). Inflation is Principal portion wealth transfer				19.74%
Inflation Cash (¥) [Principal Wealth Transfer] = Total Cash (¥) End - Total Cash (¥) Begin				¥49,350

TABLE 5 DATA SOURCE: Fractional Reserve Analysis with 1.3% Reserve Requirement, Attachment 3(a).

1.3% Fractional Reserve Requirement Financial Intermediation/Wealth Transfer Impact						
		(A)=(a) x (1-RR)	(B)= Item x (1-RR)	= (1 - RR)	(C)=Item x RR	(D) = (B) + (C)
Item	Item $ Amount	Inflation	¥ Unearned	% Unearned	¥ Earned	Total Return
Loan Principal (a)	¥50,000	¥49,350	¥49,350	98.70%		¥49,350
Interest (Loan(a) x (c))	¥2,500		¥2,468	98.70%	¥33	¥2,500
Total	¥52,500	¥49,350	¥51,818	98.70%	¥33	¥51,850
Wealth Transfer (Unearned Return = ? (B))						¥51,818
Financial Intermediation Unearned Return % (Unearned Return/Total Return = ? (B)/? (D))						99.94%
Intermediary Return on ¥650 Required Reserve Investment (Total Return/Start Cash)						7976.92%
Earned Financial Intermediation (Interest x Reserve Requirement = ? (C))						¥33
Earned Financial Intermediation % of Total Return of ¥51850 (Earned Return/Total Return)						0.06%

TABLE 6 DATA SOURCE: Fractional Reserve Analysis with 1.3% Reserve Requirement, Attachment 3(a).

III. Full Reserve Lending (100% Reserve Financial Intermediation)

II. With 100% Reserve Financial Intermediation Added (100% Real Backing)	Farmer A	Farmer B	Intermediary	Total
Start (Cash)	¥25,000	¥25,000	¥50,000	¥100,000
Direct Net Earnings(Above)	¥100,000	¥50,000	¥0	¥150,000
Loan	¥50,000		¥50,000	¥50,000
Loan Interest	-¥2,500		¥2,500	¥0
Pay Back Loan	-¥50,000		¥50,000	¥0
End (Cash)	¥122,500	¥75,000	¥52,500	¥250,000
Net Earnings	¥97,500	¥50,000	¥2,500	¥150,000
% Earnings	65.00%	33.33%	1.67%	100.00%
Wealth Transfer=(Principal+Interest) x (1- RR). Inflation is Principal portion wealth transfer				0.00%
Inflation Cash (¥) [Principal Wealth Transfer] = Total Cash (¥) End - Total Cash (¥) Begin				¥0

TABLE 7 DATA SOURCE: Fractional Reserve Analysis with 100% Reserve Requirement, Attachment 3(b).

100% Fractional Reserve Requirement Financial Intermediation/Wealth Transfer Impact						
Item	Item $ Amount	(A)=(a) x (1-RR) Inflation	(B)= Item x (1-RR) ¥ Unearned	= (1 - RR) % Unearned	(C)=Item x RR ¥ Earned	(D) = (B) + (C) Total Return
Loan Principal (a)	¥50,000	¥0	¥0	0.00%		¥0
Interest (Loan(a) x (c))	¥2,500		¥0	0.00%	¥2,500	¥2,500
Total	¥52,500	¥0	¥0	0.00%	¥2,500	¥2,500
Wealth Transfer (Unearned Return = ? (B))						¥0
Financial Intermediation Unearned Return % (Unearned Return/Total Return = ? (B)/? (D))						0.00%
Intermediary Return on ¥50000 Required Reserve Investment (Total Return/Start Cash)						5.00%
Earned Financial Intermediation (Interest x Reserve Requirement = ? (C))						¥2,500
Earned Financial Intermediation % of Total Return of ¥2500 (Earned Return/Total Return)						100.00%

TABLE 8 DATA SOURCE: Fractional Reserve Analysis with 100% Reserve Requirement, Attachment 3(b).

The intermediary does not add value to this system and only has earned income to the extent lending was backed by actual reserves. It is known from the M&M Theorem that leverage does not add value to the system so leveraging credit does not add value and the appearance of profit must be wealth transfer.

In the real world Farmer A would not borrow money this way unless he thought he was getting something. Farmer A cannot tell the difference between real credit of Tractor lending and 98.7% unbacked, 1.3% reserve financial intermediation.

Fractional Reserve Wealth Transfer and Earned Intermediation Schedules – Attachment 2							
Reserve Requirement	Wealth Transfer		Wealth Transfer (Unearned)			Earned Intermediation	
			Principal	Interest		Principal	Interest
0.0%	100.0%		100.0%	100.0%			0.0%
10.0%	90.0%		90.0%	90.0%			10.0%
20.0%	80.0%		80.0%	80.0%			20.0%
30.0%	70.0%		70.0%	70.0%			30.0%
40.0%	60.0%		60.0%	60.0%			40.0%
50.0%	50.0%		50.0%	50.0%			50.0%
60.0%	40.0%		40.0%	40.0%			60.0%
70.0%	30.0%		30.0%	30.0%			70.0%
80.0%	20.0%		20.0%	20.0%			80.0%
90.0%	10.0%		10.0%	10.0%			90.0%
100.0%	0.0%		0.0%	0.0%			100.0%

4. Inability of BOJ policy makers to forecast better than markets or GDP Index

The Bank of Japan team of economic forecasters is essentially equivalent to active management of mutual funds in the stock market that have been shown to have overwhelming odds against being able to keep pace with an index of the entire stock market.

The monetary intermediation cost of the Bank of Japan is estimated to be on the order of 3¼% of GDP per year[11], primarily through bank creation and first use of new money instead of a direct issue system to the people. It is not believed BOJ monetary policy management is adding any value to the economy according to the M&M Theorem of capital structure irrelevance so the monetary intermediation cost of the BOJ must be approximately a 98.7% (1 - applicable reserve requirement) reduction of returns and transfer of wealth to the BOJ member banks.

In order for active monetary management to justify itself it would need to add economic performance to the economy by at least the amount of its intermediation cost, which it is not believed it is able to do. It should therefore be replaced with a GDP index based monetary system with a risk free rate of return or interest rate (r_f), that could be operated at much lower intermediation cost and would increase returns to the economic system by the amount of the reduced intermediation cost, on the order of 3¼% of GDP per year from the improved efficiency of the monetary system.

Jack Bogle, who has written extensively on financial intermediation, has developed a Cost Matters Hypothesis (CMH) that is material to Japanese monetary policy:

*"Gross return in the financial markets, minus the costs of financial intermediation, equals the net return actually delivered to investors. While truly staggering amounts of investment literature have been devoted to the EMH (the Efficient Market Hypothesis), precious little has been devoted to what I call the CMH - the Cost Matters Hypothesis. However, to explain the dire odds that investors face in their quest to beat the market we don't need the EMH. We need only the CMH. **Whether markets are efficient or inefficient, investors as a group must fall short of the market return by precisely the amount of the aggregate costs they incur. It is the central fact of investing."***

John C. Bogle, Founder of the Vanguard Group, excepted from his book "Don't Count on It!", 2010, Part One Investment Illusions, Chapter 2 The Relentless Rules of Humble Arithmetic, page 26.

Monetary Intermediation Cost Bank of Japan (Est. using M1)			
Year	GDP	Intermediation	GDP-Intermediation
(End 12/31)	(% Growth)	(% GDP Cost)	Net (% GDP) (r_f)
1983	//////	//////	//////
1984	6.285%	1.819%	4.467%
1985	7.402%	0.882%	6.520%
1986	4.658%	2.624%	2.034%
1987	3.996%	1.510%	2.487%
1988	7.503%	2.039%	5.463%
1989	7.716%	0.111%	7.605%
1990	7.963%	1.435%	6.528%
1991	6.017%	2.201%	3.815%
1992	2.420%	0.817%	1.603%
1993	0.609%	1.738%	-1.128%
1994	0.980%	0.922%	0.058%
1995	1.375%	3.239%	-1.864%
1996	1.988%	3.910%	-1.922%
1997	2.105%	2.976%	-0.871%
1998	-2.083%	2.149%	-4.231%
1999	-1.441%	5.055%	-6.497%
2000	1.078%	1.063%	0.014%
2001	-1.048%	7.932%	-8.979%
2002	-1.287%	13.564%	-14.851%
2003	-0.207%	20.635%	-20.842%
2004	1.639%	3.930%	-2.291%
2005	0.683%	4.478%	-3.794%
2006	1.122%	-1.296%	2.418%
2007	1.607%	2.556%	-0.949%
2008	-2.161%	-0.760%	-1.401%
2009	-6.630%	1.091%	-7.721%
2010	1.749%	3.339%	-1.590%
2011	-2.009%	4.241%	-6.251%
AVERAGES	**1.80%**	**3.28%**	**-1.72%**
Count(Years)	28	28	28

TABLE 9 DATA SOURCE: BOJ Annual Monetary Intermediation Cost 1984 to 2011 Est. using M1 Money Stock, Attachment 5.

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[11] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.

5. Bank of Japan monetary intermediation cost impact on economy & jobs

Restoring the monetary intermediation cost of the BOJ back to the economy is expected to improve Japanese economic performance by the amount of the reduced intermediation cost, on the order of 3¼% of GDP per year[12] from the improved efficiency of the monetary system.

The Bank of Japan Monetary System has a 98.7% (1 - Reserve Requirement[13]) intermediation cost (wealth transfer effect) of new money creation. This is a transfer loss of purchasing power from the other sectors of the economy. Assuming an eighty million-yen of capital value per job creation, the average ¥549.7 trillion capitalized cost represents an estimated 6,900,000 private sector jobs. Per NY Times estimate the ¥22.0 trillion annual cost would be approximately 8,500,000 jobs. These estimates indicate the approximate cost of BOJ intermediation is on the order of seven to eight million or more jobs.

I. Historical Average (1984-2011, 28-years)	
	(¥ Billions)
1. BOJ Operations (Fiscal 2011 Actual Net)[1]	¥286.8
2. New Money (M1) Issued times (1 - reserve requirement)[1,a]	¥15,989.5
Total Annual Intermediation	¥16,276.3
Intermediation Capitalized[2,c]	¥406,907.5

II. Fiscal 2011 Actual	
	(¥ Billions)
1. BOJ Operations (Fiscal 2011 Actual Net)[1]	¥286.8
2. New Money (M1) Issued times (1 - reserve requirement)[1,a]	¥19,688.3
Total Annual Intermediation	¥19,975.2
Intermediation Capitalized[2,c]	¥499,379.2

III. Monetary Debt Impact[1,2,3 Notes]	
	(¥ Billions)
Bank note to Gov't to cover fractional reserve deposit cash shortage[3,]	¥488,660.2
Commercial Bank Federal Gov.t Securities Holdings Retired[3]	¥166,881.2
Bank of Japan Gov't Securities Holdings Retired[3]	¥87,247.2
Intermediation Capitalized	¥742,788.6

TABLE 10 DATA SOURCE: Bank of Japan Monetary Intermediation Cost Impact on Economy and Jobs, Attachment 11.

Bank of Japan Monetary Intermediation Cost Economic Impact Estimates								
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Intermediation Cost		Jobs Impact Estimates			Unemployment Reduction %	GDP % Improvement	Federal Debt Reduction %
	Annual	Capitalized	Annual	Capitalized	Average			
Estimation Basis	(¥ Billions)	(¥ Billions)	=(A)/NYT Est[8]	=(B)/¥80,000,000 (d)	=[(C)+(D)]/2	=(E)/[Unemployment]	=(A) / [GDP]	=(B)/[Fed Debt]
I. Historical Average	¥16,276.3	¥406,907.5	6,301,377	5,086,343	5,693,860	185.5%	3.5%	
II. Fiscal 2011 Actual	¥19,975.2	¥499,379.2	7,733,396	6,242,240	6,987,818	227.6%	4.3%	
III. Monetary Debt Est.	¥29,711.5	¥742,788.6	11,502,839	9,284,858	10,393,848	338.6%	6.3%	77.4%
Averages	¥21,987.7	¥549,691.8	8,512,537	6,871,147	7,691,842	250.5%	4.7%	77.4%

TABLE 11 DATA SOURCE: Bank of Japan Monetary Intermediation Cost Impact on Economy and Jobs, Attachment 11.

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[12] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.
[13] Reserve Requirement for Bank of Japan Member Banks is 1.3% over ¥1.2 Trillion Yen, Reference 3.

6. Optimal Quantity of Money and GDP Standard for Go Forward Monetary System

It is assumed the optimal quantity of money is the existing amount since it would have the least intermediation cost to change it to in a new system. The optimal quantity of money for the go forward monetary system is therefore the amount currently in use.

GDP Based Standard Quantity of Money

It is believed a GDP based monetary standard would be the most efficient and be easy to implement and maintain. It could be implemented by taking the current amount of money in circulation, dividing it by the current GDP and make that the standard quantity of money per unit of GDP. Increases in GDP would increase the money stock by a matching amount, which would be the risk free rate of return or interest rate (r_f), based on a money quantity per unit of GDP standard. It is believed the narrowest workable monetary measure would be most efficient.

Population Based Standard Quantity of Money

Robert de Fremery makes a strong case in his 1955 book *Money and Freedom* that markets would function most efficiently utilizing a fixed standard measure of money and suggests a population based standard[14], which would simply be to take the current amount of money in circulation and divide it by the current population and make that the standard quantity of money per person. Increases in population would increase the money stock by a matching amount of money based on the money quantity per person standard.

A fixed quantity of money per person standard was not proposed at this time because a GDP growth standard provides a revenue source, the risk free rate of return or interest rate (r_f), to fund the non-lending 100% depositor owned depositories proposed in section 8.

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[14] *Money and Freedom*, Robert de Fremery, 1955, Ch. 1 "Some Basic Economic Theory Concerning Money", Reference 8.

7. Why Gold is not the Answer for the Monetary System

Gold backing is unnecessary for the monetary system to work efficiently and adds intermediation expense to maintain it in storage.

It is believed a unit of GDP standard would provide better results than a gold standard because it would be easier to maintain and would provide an easily measurable standard for money stock determination. The primary reason gold has been desirable for usage as money was that it had limited availability and was difficult to counterfeit making it a good medium of exchange. The supply of gold is not fixed, nor is any commodity and therefore the price of the commodity backing the currency will fluctuate in value. Gold also has a history of being debased and because it is a commodity it can have wide value shifts making it unsuitable as a measure of value for medium of exchange use. The feature in its favor is its limited availability, however history has shown that gold based currencies have been debased over time and it is not useful as a standard of value.

With a fractional reserve system the right to convert currency to gold would decrease the money stock by more than the amount of the currency converted. The relationship between gold and the money stock is not one to one but one divided by the fractional reserve requirement percentage. At a 1.3% reserve requirement, converting ¥1 to gold would reduce the money stock by ¥76.92, an approximate seventy-seven to one relationship that is not sustainable so gold offers no currency/money stock/credit availability security at all without a 100% reserve standard.

The observed fact of history is that prices are based on the medium of exchange actually used, not the commodity backing it as evidenced by the historic periodic monetary devaluations of the dollar in terms of gold, which did not result in a matching increase in prices in the U.S. economy.[15]

A 100% reserve system does not need any underlying commodity backing the currency as long as there is a standard to determine the amount of currency in circulation, which a GDP monetary unit standard would provide.

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[15] *Money and Freedom*, Robert de Fremery, 1955, Ch. 7 "Shall We Return to a Gold Standard--Now", Reference 8.

8. Economic Recovery Transition Process to Full Reserve Monetary System

Economic recovery begins with conversion to a full reserve monetary system with direct issuance of new money creation, known as Seigniorage, to the Japanese people based on a GDP monetary standard instead of Bank of Japan Member Banks. The improvement to the Japanese economy is expected to be on the order of 3¼% of GDP per year[16] from a 98.7% reduction in monetary intermediation cost (1-reserve requirement) and restore on the order of seven million jobs[17].

Currency

It is anticipated the 100% reserve system would be implemented using existing currency and coinage in circulation since the conversion process between the existing and new monetary system would be done at par to minimize the cost of transition. Existing Bank of Japan Notes would be allowed to continue in circulation and be exchanged with new issue Japanese Bills "backed by the people of Japan" as part of routine currency replacement maintenance.

The conversion process is described below with before and after balance sheets included in Attachments 8(a) to (d).

  I. Commercial Banking System   Consolidated Commercial Banks 3/31/12 Balance Sheet-Attachment 9(a)
      A. Full Reserve Banks   Sample Bank (Mitsubishi) 3/31/2012 Balance Sheet - Attachment 9(b)
      B. Deposit Only Institutions   Sample Bank (Mitsubishi) 3/31/2012 Balance Sheet - Attachment 9(b)
II. Bank of Japan   Bank of Japan 3/31/2012 Consolidated Balance Sheet - Attachment 9(c)
III. Japanese Government   Japanese Government Fiscal 2010 Balance Sheet - Attachment 9(d)
      A. Ministry of Economy, Trade and Industry (Commerce)
      B. Ministry of Finance

I. Commercial Banking System

Commercial banks would be required to divide themselves into two entities, one being a 100% reserve cash only demand depository[18] that would not make any loans and the other being everything else that the bank does.

Commercial banks and other full reserve institutions would handle lending activity based on a 100% time matched maturity positive spread funding/lending business model utilizing certificates of deposit, funds raised in the bond market and from what ever other alternative sources of capital that were available to them including lending their own capital. The ability of banks to leverage themselves would still be available as in theory a CD could be up to 100% loaned out. Market experience would be expected to determine the level of leverage banks would stabilize around after conversion. As shown in Section 3 there is no credit intermediation loss with a full reserve system.

The existing fractional reserve mismatched maturity banking business model is a variation of a market timing strategy of buy low and sell high with demand deposits being buy low assets and loans being sell high assets as opposed to a matched maturity buy and hold strategy, which is the prevailing view in investment theory today. It is believed financial laws of investing are universally applicable and apply to deposit investments within economic systems. Traditional finance, which in a nut shell is to match the duration of liabilities to assets - long to long and short to short, indicates that financing long-term assets

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[16] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.
[17] Bank of Japan Monetary Intermediation Cost Impact on Economy and Jobs, Attachment 11.
[18] Suggested by among others David Hume in "Of Money", 1752, Reference 14.

with short term liabilities creates non-systematic business risk that can be diversified away by matched funding.

Major financial institutions Hokkaido Takushoku Bank, Ltd. in 1997 and Long-term Credit Bank of Japan, Ltd. in 1998 failed utilizing mismatched maturity business models. These are business model risks, not systematic risks that the Japanese economic system can diversify away with matched maturity funding at zero credit intermediation loss to the system as shown in section 3. There is no downside to conversion from a systematic point of view and the stability and profitability of the banking sector would also be expected to improve from an improved matched funding business model.

A. Full Reserve Commercial Banks

Commercial banks would transfer, at no charge or fee, their demand deposit accounts to new independent depositor owned 100% reserve institutions. The accounts would be funded with existing bank held cash plus bank holdings of Japanese government securities that would be credited to the demand deposit accounts and retired as obligations of the Japanese government. Commercial banks would also receive a one-time monetary conversion loan from the Japanese government in the approximate amount of ¥458.1 trillion to cover their remaining fractional reserve shortage in demand deposit funds as detailed below.

Commercial Bank Debt to Japanese Government from conversion to 100% Reserve Demand Deposits[3]	
(¥ Millions) For Week Ending	3/31/2012
Commercial Bank Deposits (Assumed all Demand)	¥664,991,225
Less: Cash and due from banks	-¥39,974,797
Less: Japanese Government Securities Holdings Retired	-¥166,881,245
Bonded Debt to Japanese Government from Funding 100% Demand Deposit Conversion	¥458,135,183
Source: Japanese Bankers Assn FY2011 Fin Stmts All Banks,Each Catagory Bank,Bal sheet All Banks (3/31/2012)	

TABLE 12 DATA SOURCE: Japanese Commercial Banks Consolidated Conversion Estimate Fiscal 2011, Attachment 9(a).

The monetary conversion loan from the Japanese government would be at a market rate for equivalent debt such as Fannie Mae and/or Freddie Mac issues at an estimated 25 basis points (0.25%) premium over Treasuries. A premium over the new risk free rate of return or interest rate (r_f), which would match the risk free seigniorage rate at the new depositories, could also be used. The monetary conversion loan would have a laddered maturity structure to match existing loan and/or other asset repayment dates bringing systematic maturities into balance with no anticipated monetary inflation from the conversion process. The banks would also receive a one-time monetary conversion release of liability due to their fractional reserve demand deposit shortage of funds. Government receipts from repayment of the ¥458.1 trillion monetary loan would be used to retire outstanding Federal debt.

Shinkin banks and any other financial institutions that take material demand deposits and/or issue credit would have up to one month or an agreed to time period to convert their accounts to time matched full reserve accounts or transfer them to a new depositor owned depository and be eligible for a monetary conversion loan.

All government sponsored deposit insurance programs would end at the completion of bank and credit provider conversion to full 100% reserve institutions. Placing funds with a commercial bank or shinkin bank would be expected to have a premium return over the risk free deposit only institutions. Any public insurance of commercial bank or shinkin bank CD type deposits would be a wealth transfer public credit substitution subsidy and is not needed since risk free interest paying depositor owned accounts would be available at the new deposit only institutions.

B. Deposit Only 100% Reserve Institutions

The new deposit only institutions would be created out of existing commercial banks and exclusively hold all of the cash demand deposits used in Japan. As mentioned in the Commercial banks section, fractional reserve lenders would do this in exchange for a monetary conversion loan of approximately ¥458.1 trillion to fund demand deposits 100% and a one-time release of liability due to being technically bankrupt from their fractional reserve shortage of funds. Bank holdings of Japanese Government securities would be credited to the demand deposit accounts at the new depositor owned 100% reserve institutions and retired.

The new deposit only institutions would be 100% owned by their depositors and would operate under a Board of Directors composed of elected deposit account holders. The deposit institutions would be expected to generate revenue by developing a debit card network that would have a minimal intermediary charge to cover system costs and would assume the Zengin check processing payment system to partially finance their operations. A second source of revenue and expected to be the main source would be new money issued, known as Seigniorage, paid directly to cash demand deposit holders, on a pro-rata basis by amount of cash held at the new depositor owned institutions in accordance with the GDP growth standard.

It is anticipated 2% to 4% or more annual increases to the money stock would be made based on the GDP growth standard. Expansions of the money stock would be voted on by the National Diet and signed into law by the Prime Minister. This process could be automated requiring governmental action only if the seigniorage payment were to be taxed in some manor. The payments would be anticipated to be made quarterly in arrears if the economy was expanding and could be called the risk free rate of return or interest (r_f) or a "Labor Dividend" to reflect that both labor and capital had combined to increase the productivity of the economy during the previous quarter. In the event of a GDP decline no interest or "Labor Dividend" would be paid until the economy had returned to net positive growth from the last dividend payment. The seigniorage payments could be taxed at the time of issuance or exempted as the increased money in circulation would be expected to increase revenues to the government by the same approximate percentage as the increase of the money stock.

Direct issue would be at least a 98.7%[19] improvement (1-reserve requirement) in the intermediation process of adding money to the system and should save on the order of 3¼% of GDP per year[20] from the reduced monetary intermediation cost to the system.

Cash demand deposit holding institutions will face overwhelming temptation to lend deposits based on the apparently 100% universal indication that that is what has happened in history. Probably the most well known case is the Bank of Amsterdam, which started as a 100% reserve institution in 1609 that went for years without audit and failed in 1790[21] after undisclosed lending activity was revealed requiring governmental/public support, effectively the public bailing itself out with added intermediation costs to boot, and from then on the bank declined and was closed in 1819. Therefore any institution maintaining depositor owned cash accounts must be chartered to never lend money or credit under any circumstances including even overnight lending. Protection of the depositor's accounts would be provided by the deposit owners themselves, utilizing a Vanguard type mutual fund model, with regular annual public audits. There would be no government provided deposit insurance such as the Deposit Insurance Corporation of Japan (DICJ) because all deposits would be depositor owned and backed 100%. Commercial banks and other full reserve institutions will exclusively handle lending activity.

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[19] Bank of Japan Monetary Intermediation Cost Inefficiency Estimate, Attachment 1.
[20] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.
[21] *Money and Freedom*, Robert de Fremery, 1955, Ch. 3 "Origin of Banking", Reference 8.

A sample of how the system would have operated for the last ten years along with a comparison showing actual M1 Money Stock growth is included in the two charts below along with a table showing the source numbers. M1 was selected for this example, any actual system would have to have an agreed upon measure of the money stock such as M1, M2, M3 or some other well defined monetary measure. The sum total of demand deposits held at the demand depositories could serve as the new go forward monetary standard. It is believed the narrowest workable monetary measure would be most efficient. GDP is assumed to be the measure for economic performance.
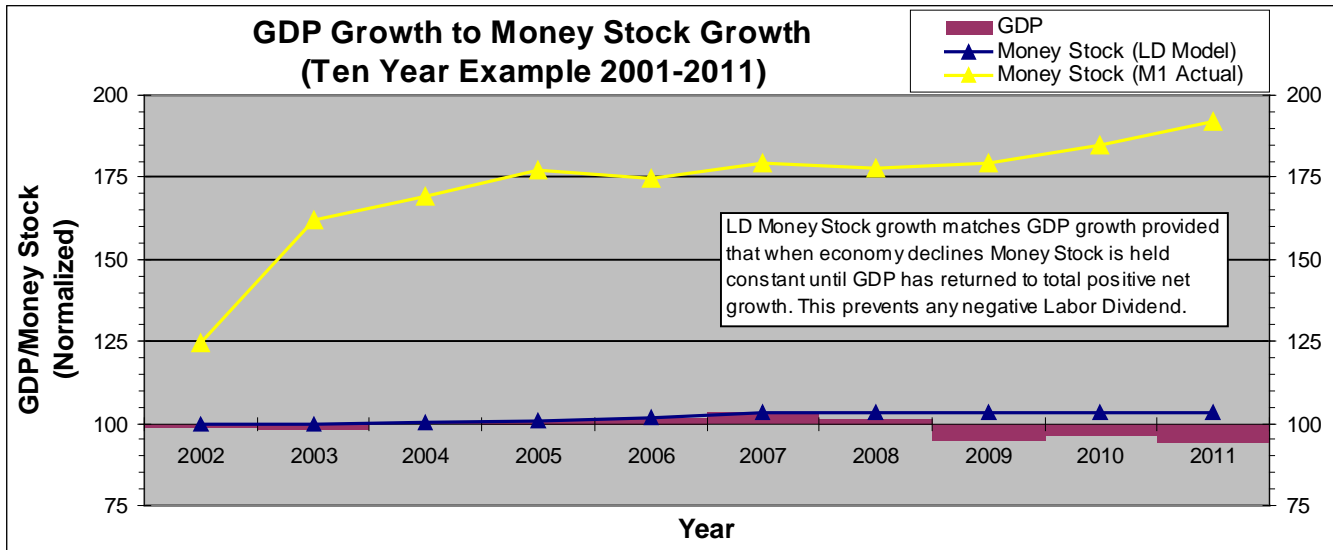
CHART 4 DATA SOURCE: Direct Issuance and First Use (Seigniorage) Money Supply, Attachment 12.
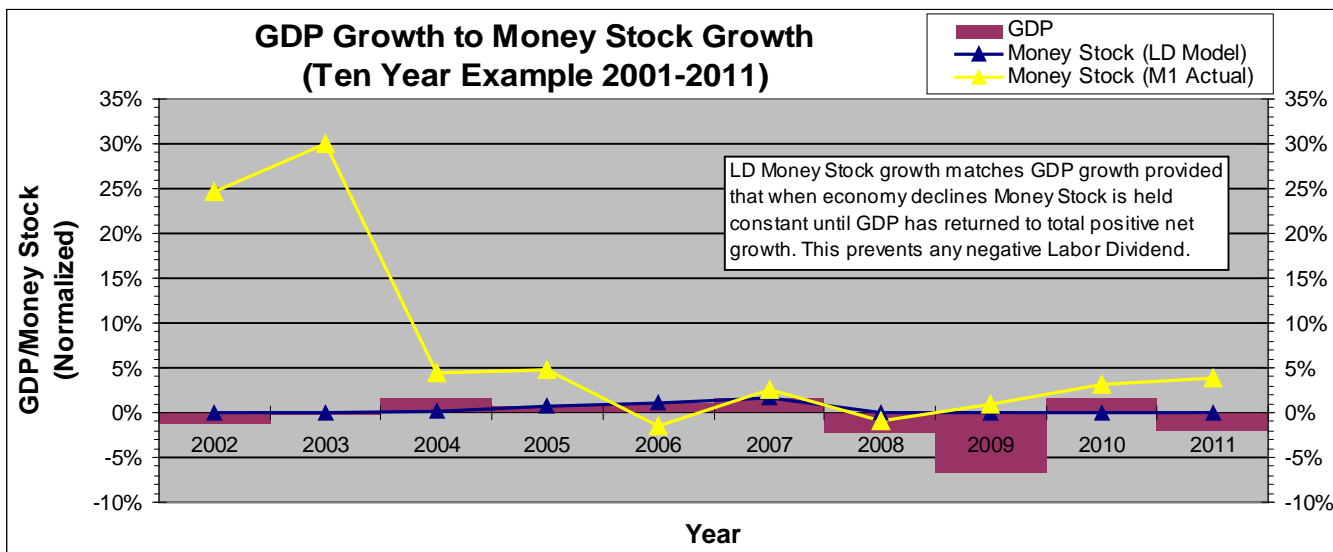
CHART 5 DATA SOURCE: Direct Issuance and First Use (Seigniorage) Money Supply, Attachment 12.

The size of these new 100% reserve demand deposit institutions should be limited so that none are able to grow large enough to present any systematic risk. A preliminary estimate is that no deposit institution should be allowed to grow larger than 1% to 1½% of total system monetary assets and that would be a factor to consider at the time of creation of the depositor owned institutions.

A full reserve system will work better than the current fractional reserve system. The key to a highly efficient, well functioning growth-oriented economy is that commerce, routine on-going transactions, proceeds independent of any financial institution that might fail. Failure of any financial institution, up to and including all financial institutions, would not affect the daily routine of commerce with a depositor owned full reserve monetary system and therefore financial risk would be removed as a systematic risk for the Japanese economic system. As shown in Section 3 there is no credit intermediation loss with a full reserve system and there would be a more efficient allocation of economic returns reducing and/or eliminating the current wealth transfer disparity caused by the fractional reserve system.

Insurance Companies Operating on the Fractional Reserve Business Model
Insurance providers are not part of the monetary system but do also operate utilizing the fractional reserve business model, usually 10% to 12%, meaning that a large loss all at once can result in losses of more than available reserves such as occurred to AIG, one of the world's largest insurance companies, in 2008. Insurance based on the fractional reserve model operates on the same principle as fractional reserve banking and does not add any systematic value in excess of reserves as shown in section 3. Therefore there should be no public insurance of private insurance companies because it is exclusively a wealth transfer with no value added to the economic system. All policy non-payment risk should be assumed by the policyholder as part of the due diligence process of purchasing insurance. Alternatively, insurance companies could be required to have the same full reserve capital requirement since the same fractional reserve wealth transfer principle applies. Writing a ¥1 million policy would require ¥1 million of matching at risk capital. The insurance company business model risk should be limited to the insurance industry and their customers and not continue as a systematic risk for the whole economy.

II. Bank of Japan
The Bank of Japan would be divided into two parts in the same manner as commercial banks. The deposit only portion of the BOJ would be assigned to the Ministry of Finance and assist with the financial operations of the federal government. The Bank of Japan Financial Network System (BOJ-NET) would also be assigned to the Ministry of Finance and assist with the payment clearing of the financial operations of the federal government.

The remaining operations of the Bank of Japan would sunset or be assigned to Ministry of Economy, Trade and Industry (Commerce). The ability of the BOJ to purchase additional securities to increase the money stock and lender of last resort would be ended. Loan payoffs and investment sales would be credited to the Japanese government and retired. The Ministry of Economy, Trade and Industry (Commerce) would maintain bank regulatory activity going forward.

Bank of Japan Notes would be converted at par with new debt free Japanese Bill currency issued and backed by the people of Japan. Existing Bank of Japan Notes would be allowed to continue in circulation and replaced as part of routine currency maintenance.

Bank of Japan Consolidated Statement Change from conversion to 100% Demand Deposits[1]	
(¥ Millions) For Period Ending	3/31/2012
Bank of Japan Banknotes (currency) Retired & Replaced with Japanese Bills	¥80,842,816
Plus: Cash Equivalents Needed to cover Japanese Gov't Demand Deposits	¥36,929,377
Less: Japanese Government Securities Holdings Retired	-¥87,247,193
Bonded Debt to Japanese Government from Funding 100% Demand Deposit Conversion	¥30,525,000
Source: Bank of Japan 2012 Annual Review (Fiscal 2011) Balance Sheets pp. 67-68.	

TABLE 13 DATA SOURCE: Bank of Japan Conversion Estimate Balance Sheet, Attachment 9(c).

III. Japanese Government

Monetary policy would be transferred to the Legislative Branch to be signed into law and administered by the Executive Branch, believed to be most naturally a function of the Ministry of Economy, Trade and Industry (Commerce). Increases in the money stock based on the GDP standard would to be handled in traditional legislative manner.

A. Ministry of Economy, Trade and Industry (Commerce)

The Ministry of Economy, Trade and Industry would maintain the money stock and increase it by the net positive GDP growth of the economy. Currency and coinage related activities would be assigned to the Ministry of Economy, Trade and Industry. The Ministry of Economy, Trade and Industry would also maintain bank regulatory activity going forward and assume the sunsetting non-demand deposit operations of the Bank of Japan.

Japanese Government Debt (Before Conversion)		
(¥ Millions) As of	3/31/2011	% Total
Financing bills	¥90,669,554	10.4%
Government bonds	¥758,697,718	87.0%
Borrowings	¥23,092,376	2.6%
Total Japanese Government Debt	¥872,459,648	100.0%

Japanese Government Debt (After Conversion)		
(¥ Millions) As of	3/31/2011	% Total
Total Japanese Fed Government Debt	¥872,459,648	100.0%
- Fed debt held by the BOJ retired[c,2]	-¥87,247,193	-10.0%
- Fed debt held by com. banks retired[c,3]	-¥166,881,245	-19.1%
- Debt to Gov't from Conversion[b]	-¥488,660,183	-56.0%
Japanese Gov't Debt after conversion	¥129,671,027	14.9%

TABLES 14 & 15 DATA SOURCE: Japanese Government Consolidated Balance Sheet Conversion Est., Attachment 9(d).

B. Ministry of Finance

The mission statement of the Ministry of Finance would be redefined to manage the Japanese Government's finances and resources effectively. Managing government accounts, public debt, revenue collection and tax policy would be functions of the Ministry of Finance. The deposit only portion of the BOJ would be assigned to the Ministry of Finance and assist with the financial operation of the federal government.

9. How Financial Emergencies Would Be Handled

The same way they are handled now. What would change is the intermediation cost of introducing new money into the financial system. With a full reserve system there would no longer be deposit bank failures so the financial system would no longer be at risk. Much financial regulation could be retired since it would no longer be applicable, which should also improve economic system performance.

The government would handle emergencies by getting legislative approval signed into law by the Prime Minister in the following estimated order priority:
1) Traditional taxation,
2) Issue debt to the general market in the form of bonds, and
3) Taxing GDP monetary seigniorage payments issued to the people.

It is believed that virtually all emergencies would be covered by traditional taxation and debt issuance. Once new money seigniorage is issued directly to the people in item 3) it could be taxed in an emergency situation.

10. Conclusion

Economic recovery begins with conversion to a full reserve monetary system and direct issuance of new money creation, known as Seigniorage, to the Japanese people based on a GDP growth standard instead of Bank of Japan Member Banks. The BOJ's fractional reserve monetary system is not the most efficient means of controlling the money stock in Japan. It adds unnecessary intermediation cost to the economy since no value is added from its money creation and fractional reserve activity and therefore lowers returns to the economy by the amount of its intermediation cost. It is believed that with the discovery of the Modigliani-Miller Financial Theorem in 1958 of the irrelevance of capital structure that proof of the superiority of the full reserve system has existed because of its lower monetary intermediation cost.

Replacing the Bank of Japan System with a 100% reserve system and GDP based monetary standard would result in 98.7%[22] lower monetary intermediation cost, less structural leverage risk, a more stable economy, more efficient allocation of capital and a higher standard of living for all Japanese. Returning control of monetary policy to the people would also restore transparency and accountability to the taxpayers and voters of Japan that is not possible with the current system. Unfair and unequal discretionary bailouts of some companies and not others would be eliminated[23] and critically involuntary wealth transfers to the banking sector from the other sectors of the economy would also be eliminated.[24]

At least five previous Nobel Prize winners, Milton Friedman, 1976, James Tobin, 1981, Maurice Allais, 1988, Merton Miller, 1990 and Frederick Soddy, 1921 along with Irving Fisher, one of the foremost economists of the first half of the 20th Century have all supported full reserve monetary systems[25].

As shown in Section 3 there is no credit intermediation loss with a full reserve system and there would be a more efficient allocation of capital and economic returns reducing and/or eliminating the current wealth transfer disparity caused by the fractional reserve system. The improvement to the Japanese economy is expected to be the approximate amount of the reduced monetary intermediation cost, on the order of 3¼% of GDP per year[26]. Conversion to a full reserve monetary system is also estimated to improve the balance sheet of Japan on the order of ¥742.8 trillion[27] as of fiscal year 2011 and restore on the order of seven million jobs[27].

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[22] Bank of Japan Monetary Intermediation Cost Inefficiency Estimate, Attachment 1.
[23] Deposit Insurance Corporation of Japan, Status of capital injection into financial institutions and disposal of capital-raising instruments (as of March 31, 2012), Reference 9.
[24] Deposit Insurance Corporation of Japan Financial Assistance (by Fiscal Year), Attachment 14.
[25] Historical Support for 100% Full Reserve Demand Deposit Banking, Attachment 13.
[26] Bank of Japan Compounded Monetary Intermediation Cost since 1984 and 1956, Attachments 6 and 8.
[27] Bank of Japan Monetary Intermediation Cost Impact on Economy and Jobs, Attachment 11.

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12. Attachments

Attachment 1
Economic Recovery Plan for Japan
Monetary Intermediation Cost Inefficiency Estimate
(with Wealth Transfer Effect)

I. Intermediation Cost using Current Bank of Japan Monetary System		
Bank of Japan Monetary Issuance System	**$ Amount**	**Efficiency of Monetary Increase**
1. Bank of Japan acquires government issued debt	¥1,000,000	1.3% **People/Gov't Benefit**
2. Bank of Japan Reserve Requirement (est.)[1]	1.3%	
3. Money Supply Increase via Bank of Japan Loans	¥76,923,077	100.0%
4. Bank of Japan's net Increased Loans (Intermediation Cost)	¥75,923,077	98.7% **Intermediation Cost**

Intermediation Cost Inefficiency Utilizing Bank of Japan Monetary System

With the Bank of Japan's (BOJ) approximate 1.3% fractional reserve lending requirement, 98.7% of the money supply increase is in the form of new BOJ member bank loans with 1.3% of the increase to the government from new debt issuance indicating that the cost of using the Bank of Japan as an intermediary to increase the money stock is 98.7%. The money stock increase dilutes the existing money stock and transfers wealth from the other sectors of the economy to the banking sector by the amount of the money stock increase. Money creation and first use, known as seigniorage, by the BOJ is equivalent to 98.7% direct wealth transfer.

II. Direct Monetary Expansion System to People using Government Entity		
Direct Monetary Issuance System (Possible Ministry Economy,Trade&Ind	**$ Amount**	**Efficiency of Monetary Increase**
1. People issued bills directly from government (METI)	¥1,000,000	100.0% **People/Gov't Benefit**
2. Japanese people portion of issued bills	100.0%	
3. Money stock increase to people via direct government issue	¥1,000,000	100.0%
4. Bank of Japan's net increased loans (Intermediation Cost)	¥0	0.0% **Intermediation Cost**

Intermediation Efficiency Increase with Direct Issuance of Currency

With direct issuance of money stock increases to the Japanese people and/or people holding Yen denominated demand deposit accounts, anticipated to most naturally be voted on by Japanese Diet and administered by the Ministry of Economy, Trade and Industry, 100% of the increase in the money stock goes direct to the Japanese people with no intermediation loss. Direct issuance of money stock increases eliminating the intermediation cost of the Bank of Japan would be at least 98.7% more efficient than the current system and eliminate the wealth transfer to the banking sector issue. The government could tax the new money seigniorage at issuance to the people if necessary or as a regular part of the income tax collection process.

Deposit Reserve Requirement Ratios[1]		Other Req'd Reserves
As of	10/16/1991	**Time Deposits (CDs)**
¥50-500 Billion Yen	0.10%	0.05%
¥500 Billion-1.2 Trillion Yen	0.80%	0.05%
¥1.2-2.5 Trillion Yen	1.30%	0.90%
More than ¥2.5 Trillion Yen	1.30%	1.20%

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SOURCE:
1-Bank of Japan Reserve Requirement Ratios at
http://www.boj.or.jp/en/statistics/boj/other/reservereq/index.htm/

Attachment 2
Economic Recovery Plan for Japan
Fractional Reserve Monetary Intermediation Impact Schedules

Fractional Reserve Monetary Wealth Transfer and Earned Intermediation Schedules					

Reserve Requirement	Wealth Transfer	Wealth Transfer (Unearned)		Earned Intermediation	
		Principal	**Interest**	**Principal**	**Interest**
0.0%	100.0%	100.0%	100.0%		0.0%
10.0%	90.0%	90.0%	90.0%		10.0%
20.0%	80.0%	80.0%	80.0%		20.0%
30.0%	70.0%	70.0%	70.0%		30.0%
40.0%	60.0%	60.0%	60.0%		40.0%
50.0%	50.0%	50.0%	50.0%		50.0%
60.0%	40.0%	40.0%	40.0%		60.0%
70.0%	30.0%	30.0%	30.0%		70.0%
80.0%	20.0%	20.0%	20.0%		80.0%
90.0%	10.0%	10.0%	10.0%		90.0%
100.0%	0.0%	0.0%	0.0%		100.0%

Wealth Transfer Effect (Principal and Interest Payments)

Legend: Earned Real Credit Intermediation %; Unearned Wealth Transfer %

Red column is unearned wealth transfer with no value added to system from unbacked credit intermediation. Credit intermediation must be time matched or actual lender capital, otherwise unearned wealth transfer occurs since no real credit is lent, repayments must be wealth transfers or unearned credit intermediation.

Y-axis: Wealth Transfer %
X-axis: Real Backed Credit Intermediation % (1-Reserve Requirement)

Notes:

1-A 100% reserve requirement does not mean a credit intermediary would not be able to lend, it means the intermediated credit, say a 5-year loan, would need to be 100% time matched with 5-year funds such as a 5-year certificate of deposit with the credit intermediary making a spread profit. Credit intermediary would also be able to lend their own capital without restriction.

3-It is not possible to have credit intermediation on demand deposits, even overnight funds lending, because the funds can be withdrawn at any time and must be 100% available. Any and all lending of third party demand deposits is 0% credit intermediation and 100% wealth transfer to the lender system from the borrower system.

4-To avoid the temptation to loan demand deposits, checking accounts and accounts subject to debit card withdrawals, it is believed new deposit only institutions should be created that are 100% owned by the depositors themselves so that if deposits are ever lent resulting in a loss, the depository owners would experience 100% of the loss without impacting the rest of the deposit only system. There would be no insurance for this type of loss, it would be up to the deposit owners to operate their depositories to protect their own money. Protection would come from a depositor owned board of directors and regular public audits. It is expected depository only institutions would be able to cover their costs through development of a debit card network and direct deposit of money stock expansions on a pro rata basis from "Labor Dividends" otherwise known as seigniorage.

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Economic Recovery Plan for Japan
Fractional Reserve Analysis with 1.3% Reserve Requirement (Example)

No Financial Intermediary Analysis

When no financial intermediary is involved, intermediation must be real direct asset lending. In this example, Farmer B as Intermediary lends Farmer A a tractor to use for ¥50,000. Farmer A rents the tractor from Farmer B and grows a crop which is sold. In this system ¥150,000 of wealth is created from crop sale split ¥100,000 to Farmer A and ¥50,000 to Farmer B for use of the tractor with financial intermediary not participating at ¥0.

I. No Financial Intermediary (Real Asset Tractor Lending)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000	Begin Cash
Tractor Rent	-¥50,000	¥50,000		¥0	
Sell Crop	¥150,000			¥150,000	
End (Cash)	¥149,675	¥99,675	¥650	¥250,000	End Cash
Direct Net Earnings	¥100,000	¥50,000	¥0	¥150,000	Earnings (¥)
% Earnings	66.67%	33.33%	0.00%	100.00%	Earnings (%)

II. With 1.3% Reserve Financial Intermediation Added (1.3% Real Backing)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000	Begin Cash
Direct Net Earnings(Above)	¥100,000	¥50,000	¥0	¥150,000	
Loan	¥50,000		¥50,000	¥50,000	
Loan Interest	-¥2,500		¥2,500	¥0	
Pay Back Loan	-¥50,000		¥50,000	¥0	
End (Cash)	¥147,175	¥99,675	¥52,500	¥299,350	End Cash
Net Earnings	¥97,500	¥50,000	¥51,850	¥199,350	Earnings (¥)
% Earnings	48.91%	25.08%	26.01%	100.00%	Earnings (%)
Wealth Transfer=(Principal+Interest) x (1- RR). Inflation is Principal portion wealth transfer				19.74%	**Inflation Cash (%)**
Inflation Cash (¥) [Principal Wealth Transfer] = Total Cash (¥) End - Total Cash (¥) Begin				¥49,350	**Inflation Cash (¥)**

1.3% Fractional Reserve Requirement Financial Intermediation/Wealth Transfer Impact						
		(A)=(a) x (1-RR)	(B)= Item x (1-RR)	= (1 - RR)	(C)=Item x RR	(D) = (B) + (C)
Item	Item $ Amount	Inflation	¥ Unearned	% Unearned	¥ Earned	Total Return
Loan Principal (a)	¥50,000	¥49,350	¥49,350	98.70%		¥49,350
Interest (Loan(a) x (c))	¥2,500		¥2,468	98.70%	¥33	¥2,500
Total	¥52,500	¥49,350	¥51,818	98.70%	¥33	¥51,850
Wealth Transfer (Unearned Return = ∑(B))						¥51,818
Financial Intermediation Unearned Return % (Unearned Return/Total Return = ∑(B)/∑(D))						99.94%
Intermediary Return on ¥650 Required Reserve Investment (Total Return/Start Cash)						7976.92%
Earned Financial Intermediation (Interest x Reserve Requirement = ∑(C))						¥33
Earned Financial Intermediation % of Total Return of ¥51850 (Earned Return/Total Return)						0.06%

1.3% Fractional Reserve Financial Intermediation Analysis

In this 1.3% fractional reserve system the Financial Intermediary adds a ¥50,000 loan into the system 98.7% (1-reserve requirement) backed by no real or financial assets, increasing fractional reserve returns by ¥49,350 to ¥199,350 from the sale of the exact same crop now split ¥97,500 to Farmer A, ¥50,000 to Farmer B and ¥51,850 to the intermediary that added 1.3% real credit. Farmer A pays back a ¥50,000 loan and pays interest of ¥2,500 for 1.3% (¥650) of true credit intermediation. In the real world Farmer A would not borrow money this way unless he thought he was getting something. Farmer A cannot tell the difference between real credit of Tractor lending and 98.7% unbacked, 1.3% reserve financial intermediation. The 98.7% unbacked Financial Intermediary loan captures an extra 24.34% to 26.01% of the system earnings in the form of inflation and interest in a 98.7% direct transfer of wealth since the same crop is produced.

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Fractional Reserve Intermediation Analysis

In this system Wealth Transfer is (Loan Principal + Interest) x (1- Reserve Requirement)). Inflation is Principal portion of wealth transfer. In a 0% reserve system 100% of the loan repayment results in inflation with interest payments as direct wealth transfer without added inflation. In a 100% reserve system there is no inflationary wealth transfer and 100% of the interest earned is true credit intermediation.

Assumptions	
Initial System Cash	¥100,000
Tractor Rent $	¥50,000
Crop Sale Price	¥150,000
(a)-Loan Amount $	¥50,000
(b)-Reserve Requirement (RR)	1.30%
(c)-Interest Rate	5.00%

Attachment 3(b)
Economic Recovery Plan for Japan
Fractional Reserve Analysis with 100% Reserve Requirement (Example)

No Financial Intermediary Analysis

When no financial intermediary is involved, intermediation must be real direct asset lending. In this example, Farmer B as Intermediary lends Farmer A a tractor to use for ¥50,000. Farmer A rents the tractor from Farmer B and grows a crop which is sold. In this system ¥150,000 of wealth is created from crop sale split ¥100,000 to Farmer A and ¥50,000 to Farmer B for use of the tractor with financial intermediary not participating at ¥0.

I. No Financial Intermediary (Real Asset Tractor Lending)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥25,000	¥25,000	¥50,000	¥100,000	Begin Cash
Tractor Rent	-¥50,000	¥50,000		¥0	
Sell Crop	¥150,000			¥150,000	
End (Cash)	¥125,000	¥75,000	¥50,000	¥250,000	End Cash
Direct Net Earnings	¥100,000	¥50,000	¥0	¥150,000	Earnings (¥)
% Earnings	66.67%	33.33%	0.00%	100.00%	Earnings (%)

II. With 100% Reserve Financial Intermediation Added (100% Real Backing)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥25,000	¥25,000	¥50,000	¥100,000	Begin Cash
Direct Net Earnings(Above)	¥100,000	¥50,000	¥0	¥150,000	
Loan	¥50,000		¥50,000	¥50,000	
Loan Interest	-¥2,500		¥2,500	¥0	
Pay Back Loan	-¥50,000		¥50,000	¥0	
End (Cash)	¥122,500	¥75,000	¥52,500	¥250,000	End Cash
Net Earnings	¥97,500	¥50,000	¥2,500	¥150,000	Earnings (¥)
% Earnings	65.00%	33.33%	1.67%	100.00%	Earnings (%)
Wealth Transfer=(Principal+Interest) x (1- RR). Inflation is Principal portion wealth transfer				0.00%	Inflation Cash (%)
Inflation Cash (¥) [Principal Wealth Transfer] = Total Cash (¥) End - Total Cash (¥) Begin				¥0	Inflation Cash (¥)

100% Fractional Reserve Requirement Financial Intermediation/Wealth Transfer Impact					
		(A)=(a) x (1-RR)	(B)= Item x (1-RR)	= (1 - RR)	(C)=Item x RR	(D) = (B) + (C)
Item	Item $ Amount	Inflation	¥ Unearned	% Unearned	¥ Earned	Total Return
Loan Principal (a)	¥50,000	¥0	¥0	0.00%		¥0
Interest (Loan(a) x (c))	¥2,500		¥0	0.00%	¥2,500	¥2,500
Total	¥52,500	¥0	¥0	0.00%	¥2,500	¥2,500

Wealth Transfer (Unearned Return = ∑(B))	¥0
Financial Intermediation Unearned Return % (Unearned Return/Total Return = ∑(B)/∑(D))	0.00%
Intermediary Return on ¥50000 Required Reserve Investment (Total Return/Start Cash)	5.00%
Earned Financial Intermediation (Interest x Reserve Requirement = ∑(C))	¥2,500
Earned Financial Intermediation % of Total Return of ¥2500 (Earned Return/Total Return)	100.00%

100% Fractional Reserve Financial Intermediation Analysis

In this 100% fractional reserve system the Financial Intermediary adds a ¥50,000 loan into the system 100% backed by real financial assets (intermediary start cash), increasing fractional reserve returns by ¥0 to the same ¥150,000 from the sale of the exact same crop now split ¥97,500 to Farmer A, ¥50,000 to Farmer B and ¥2,500 to the intermediary that added 100% real credit. Farmer A pays back a ¥50,000 loan and pays interest of ¥2,500 for 100% (¥50,000) of true credit intermediation. In the real world Farmer A would take this type of loan to maintain some liquidity during the growing period before crop harvest. The Financial Intermediary loan captures 1.67% of the system earnings in the form of interest with no unearned transfer of wealth in the form of fractional reserve lending inflation since the same crop is produced with no cash added to the system.

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Fractional Reserve Intermediation Analysis

In this system Wealth Transfer is (Loan Principal + Interest) x (1- Reserve Requirement)). Inflation is Principal portion of wealth transfer. In a 0% reserve system 100% of the loan repayment results in inflation with interest payments as direct wealth transfer without added inflation. In a 100% reserve system there is no inflationary wealth transfer and 100% of the interest earned is true credit intermediation.

Assumptions	
Initial System Cash	¥100,000
Tractor Rent $	¥50,000
Crop Sale Price	¥150,000
(a)-Loan Amount $	¥50,000
(b)-Reserve Requirement (RR)	100.00%
(c)-Interest Rate	5.00%

Economic Recovery Plan for Japan
Fractional Reserve Analysis with 1.3% Reserve Requirement (Example)
Recession (25% Crop Failure from ¥150,000 to ¥112,500)

No Financial Intermediary Analysis

When no financial intermediary is involved, intermediation must be real direct asset lending. In this example, Farmer B as Intermediary lends Farmer A a tractor to use for ¥50,000. Farmer A rents the tractor from Farmer B and grows a crop which is sold. In this system ¥150,000 of wealth is created from crop sale split ¥100,000 to Farmer A and ¥50,000 to Farmer B for use of the tractor with financial intermediary not participating at ¥0.

I. No Financial Intermediary (Real Asset Tractor Lending)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000	Begin Cash
Tractor Rent	-¥50,000	¥50,000		¥0	
Sell Crop	¥112,500			¥112,500	
End (Cash)	¥112,175	¥99,675	¥650	¥212,500	End Cash
Direct Net Earnings	¥62,500	¥50,000	¥0	¥112,500	Earnings (¥)
% Earnings	55.56%	44.44%	0.00%	100.00%	Earnings (%)

II. With 1.3% Reserve Financial Intermediation Added (1.3% Real Backing)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000	Begin Cash
Direct Net Earnings(Above)	¥62,500	¥50,000	¥0	¥112,500	
Loan	¥50,000		¥50,000	¥50,000	
Loan Interest	-¥2,500		¥2,500	¥0	
Pay Back Loan	-¥50,000		¥50,000	¥0	
End (Cash)	¥109,675	¥99,675	¥52,500	¥261,850	End Cash
Net Earnings	¥60,000	¥50,000	¥51,850	¥161,850	Earnings (¥)
% Earnings	37.07%	30.89%	32.04%	100.00%	Earnings (%)
Wealth Transfer=(Principal+Interest) x (1- RR). Inflation is Principal portion wealth transfer				23.22%	**Inflation Cash (%)**
Inflation Cash (¥) [Principal Wealth Transfer] = Total Cash (¥) End - Total Cash (¥) Begin				¥49,350	**Inflation Cash (¥)**

1.3% Fractional Reserve Requirement Financial Intermediation/Wealth Transfer Impact						
		(A)=(a) x (1-RR)	(B)= Item x (1-RR)	= (1 - RR)	(C)=Item x RR	(D) = (B) + (C)
Item	**Item $ Amount**	**Inflation**	**¥ Unearned**	**% Unearned**	**¥ Earned**	**Total Return**
Loan Principal (a)	¥50,000	¥49,350	¥49,350	98.70%		¥49,350
Interest (Loan(a) x (c))	¥2,500		¥2,468	98.70%	¥33	¥2,500
Total	¥52,500	¥49,350	¥51,818	98.70%	¥33	¥51,850
Wealth Transfer (Unearned Return = ∑(B))						¥51,818
Financial Intermediation Unearned Return % (Unearned Return/Total Return = ∑(B)/∑(D))						99.94%
Intermediary Return on ¥650 Required Reserve Investment (Total Return/Start Cash)						7976.92%
Earned Financial Intermediation (Interest x Reserve Requirement = ∑(C))						¥33
Earned Financial Intermediation % of Total Return of ¥51850 (Earned Return/Total Return)						0.06%

1.3% Fractional Reserve Financial Intermediation Analysis

In this 1.3% fractional reserve system the Financial Intermediary adds a ¥50,000 loan into the system 98.7% (1-reserve requirement) backed by no real or financial assets, increasing fractional reserve returns by ¥49,350 to ¥161,850 from the sale of the exact same crop now split ¥60,000 to Farmer A, ¥50,000 to Farmer B and ¥51,850 to the intermediary that added 1.3% real credit. Farmer A pays back a ¥50,000 loan and pays interest of ¥2,500 for 1.3% (¥650) of true credit intermediation. In the real world Farmer A would not borrow money this way unless he thought he was getting something. Farmer A cannot tell the difference between real credit of Tractor lending and 98.7% unbacked, 1.3% reserve financial intermediation. The 98.7% unbacked Financial Intermediary loan captures an extra 29.82% to 32.04% of the system earnings in the form of inflation and interest in a 98.7% direct transfer of wealth since the same crop is produced.

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Fractional Reserve Intermediation Analysis

In this system Wealth Transfer is (Loan Principal + Interest) x (1- Reserve Requirement)). Inflation is Principal portion of wealth transfer. In a 0% reserve system 100% of the loan repayment results in inflation with interest payments as direct wealth transfer without added inflation. In a 100% reserve system there is no inflationary wealth transfer and 100% of the interest earned is true credit intermediation.

Assumptions	
Initial System Cash	¥100,000
Tractor Rent $	¥50,000
Crop Sale Price	¥112,500
(a)-Loan Amount $	¥50,000
(b)-Reserve Requirement (RR)	1.30%
(c)-Interest Rate	5.00%

Attachment 3(d)
Economic Recovery Plan for Japan
Fractional Reserve Analysis with 1.3% Reserve Requirement (Example)
Depression (75% Crop Failure from ¥150,000 to ¥37,500)

No Financial Intermediary Analysis

When no financial intermediary is involved, intermediation must be real direct asset lending. In this example, Farmer B as Intermediary lends Farmer A a tractor to use for ¥50,000. Farmer A rents the tractor from Farmer B and grows a crop which is sold. In this system ¥150,000 of wealth is created from crop sale split ¥100,000 to Farmer A and ¥50,000 to Farmer B for use of the tractor with financial intermediary not participating at ¥0.

I. No Financial Intermediary (Real Asset Tractor Lending)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000	Begin Cash
Tractor Rent	-¥50,000	¥50,000		¥0	
Sell Crop	¥37,500			¥37,500	
End (Cash)	¥37,175	¥99,675	¥650	¥137,500	End Cash
Direct Net Earnings	-¥12,500	¥50,000	¥0	¥37,500	Earnings (¥)
% Earnings	-33.33%	133.33%	0.00%	100.00%	Earnings (%)

II. With 1.3% Reserve Financial Intermediation Added (1.3% Real Backing)					
	Farmer A	Farmer B	Intermediary	Total	
Start (Cash)	¥49,675	¥49,675	¥650	¥100,000	Begin Cash
Direct Net Earnings(Above)	-¥12,500	¥50,000	¥0	¥37,500	
Loan	¥50,000		¥50,000	¥50,000	
Loan Interest	-¥2,500		¥2,500	¥0	
Pay Back Loan	-¥50,000		¥50,000	¥0	
End (Cash)	¥34,675	¥99,675	¥52,500	¥186,850	End Cash
Net Earnings	-¥15,000	¥50,000	¥51,850	¥86,850	Earnings (¥)
% Earnings	-17.27%	57.57%	59.70%	100.00%	Earnings (%)
Wealth Transfer=(Principal+Interest) x (1- RR). Inflation is Principal portion wealth transfer				35.89%	**Inflation Cash (%)**
Inflation Cash (¥) [Principal Wealth Transfer] = Total Cash (¥) End - Total Cash (¥) Begin				¥49,350	**Inflation Cash (¥)**

1.3% Fractional Reserve Requirement Financial Intermediation/Wealth Transfer Impact						
		(A)=(a) x (1-RR)	(B)= Item x (1-RR)	= (1 - RR)	(C)=Item x RR	(D) = (B) + (C)
Item	**Item $ Amount**	**Inflation**	**¥ Unearned**	**% Unearned**	**¥ Earned**	**Total Return**
Loan Principal (a)	¥50,000	¥49,350	¥49,350	98.70%		¥49,350
Interest (Loan(a) x (c))	¥2,500		¥2,468	98.70%	¥33	¥2,500
Total	¥52,500	¥49,350	¥51,818	98.70%	¥33	¥51,850
Wealth Transfer (Unearned Return = ∑(B))						¥51,818
Financial Intermediation Unearned Return % (Unearned Return/Total Return = ∑(B)/∑(D))						99.94%
Intermediary Return on ¥650 Required Reserve Investment (Total Return/Start Cash)						7976.92%
Earned Financial Intermediation (Interest x Reserve Requirement = ∑(C))						¥33
Earned Financial Intermediation % of Total Return of ¥51850 (Earned Return/Total Return)						0.06%

1.3% Fractional Reserve Financial Intermediation Analysis

In this 1.3% fractional reserve system the Financial Intermediary adds a ¥50,000 loan into the system 98.7% (1-reserve requirement) backed by no real or financial assets, increasing fractional reserve returns by ¥$49,350 to ¥$86,850 from the sale of the exact same crop now split -¥15,000 to Farmer A, ¥$50,000 to Farmer B and ¥51,850 to the intermediary that added 1.3% real credit. Farmer A pays back a ¥50,000 loan and pays interest of ¥2,500 for 1.3% (¥650) of true credit intermediation. In the real world Farmer A would not borrow money this way unless he thought he was getting something, Farmer A cannot tell the difference between real credit of Tractor lending and 98.7% unbacked, 1.3% reserve financial intermediation. The 98.7% unbacked Financial Intermediary loan captures an extra 53.03% to 59.70% of the system earnings in the form of inflation and interest in a 98.7% direct transfer of wealth since the same crop is produced.

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Fractional Reserve Intermediation Analysis

In this system Wealth Transfer is (Loan Principal + Interest) x (1- Reserve Requirement)). Inflation is Principal portion of wealth transfer. In a 0% reserve system 100% of the loan repayment results in inflation with interest payments as direct wealth transfer without added inflation. In a 100% reserve system there is no inflationary wealth transfer and 100% of the interest earned is true credit intermediation.

Assumptions	
Initial System Cash	¥100,000
Tractor Rent $	¥50,000
Crop Sale Price	¥37,500
(a)-Loan Amount $	¥50,000
(b)-Reserve Requirement (RR)	1.30%
(c)-Interest Rate	5.00%

Attachment 4

Economic Recovery Plan for Japan

Bank of Japan (BOJ) Operating Costs 2005 to 2011[1,2,A]

BOJ operating costs estimated as: 1) Interest on Payables + 2) Foreign Currency Losses + 3) Gen Admin Net + 4) Staff + 5) Depreciation and 6) Other Gen & Admin. Banknote costs not included as net operating cost since assumed needed with or without BOJ monetary intermediation.

(N)	Fiscal	Bank of Japan (BOJ) Operating Costs							
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)=(a)+(b)+(c)+(d)+(e)+(g)
	Year	Interest on	Foreign Currency	General Admin	Staff	Depreciation	Banknotes[D]	Other General	Net Operating
#	(End 3/31)	Payables (¥ Yen)	Losses[B] (¥ Yen)	Net[C] (¥ Yen)	(¥ Yen)	(¥ Yen)	(¥ Yen)	& Admin (¥ Yen)	Cost (¥ Yen)
1	2004	¥248,133,110	¥0	¥100,023,986,761	¥49,071,030,457	¥18,364,731,069	¥64,698,822,000	¥44,796,886,597	¥212,504,767,994
2	2005	¥333,815,544	¥878,189,316	¥102,555,287,523	¥49,215,104,503	¥17,210,423,296	¥61,737,716,000	¥45,434,867,902	¥215,627,688,084
3	2006	¥50,552,373,315	¥0	¥102,920,116,941	¥50,177,445,019	¥16,219,358,407	¥55,595,504,000	¥28,120,103,766	¥247,989,397,448
4	2007	¥72,488,833,178	¥603,772,996,799	¥100,983,513,567	¥50,800,656,726	¥15,248,623,560	¥53,108,284,000	¥34,174,935,065	¥877,469,558,895
5	2008	¥57,341,688,997	¥417,748,665,750	¥104,841,308,395	¥50,975,211,435	¥18,892,016,750	¥52,687,718,000	¥131,060,278,333	¥780,859,169,660
6	2009	¥20,258,707,171	¥218,588,510,959	¥73,384,431,924	¥50,094,633,290	¥17,873,189,859	¥50,884,110,000	¥34,811,475,442	¥415,010,948,645
7	2010	¥19,273,928,687	¥481,351,246,922	¥76,790,595,513	¥49,258,973,812	¥18,523,067,861	¥50,160,002,000	¥24,491,342,422	¥669,689,155,217
8	2011	¥17,010,030,431	¥60,622,806,626	¥76,130,716,888	¥49,174,474,092	¥16,404,769,731	¥49,921,440,000	¥67,497,835,225	¥286,840,632,993
	TOTALS	¥237,507,510,433	¥1,782,962,416,372	¥737,629,957,512	¥398,767,529,334	¥138,736,180,533	¥438,793,596,000	¥410,387,724,752	¥3,705,991,318,936

Notes:

A-BOJ pays its profits to Japanese government after deducting its operating expenses so operating expenses are an intermediation cost.

B-Ignores Foreign currency gains

C-General Admin Net = Total General Administrative - 1) Staff - 2) Depreciation - 3) Banknotes.

D-Banknote costs not included as net operating cost since assumed needed with or without BOJ monetary intermediation.

Sources:

1-Bank of Japan Annual Reviews from Statements of income for Fiscal Years 2004 to 2011 at
http://www.boj.or.jp/en/about/activities/act/index.htm/

2-Bank of Japan, The Bank's Accounts, Financial Statements for Fiscal Years 2004 to 2011 at
http://www.boj.or.jp/en/about/account/index.htm/

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Attachment 5
Economic Recovery Plan for Japan
BOJ Annual Monetary Intermediation Cost 1984 to 2011 using M1 Money Stock[1]

There is no economic reward for monetary leverage from M&M Theorem.

(Corollary, risk free rate (r_f) should be GDP growth rate, not gov't debt rate)

Assumptions

Bank of Japan Reserve Requirement (RR) — 1.3%

(N)		(A)	(B) = (A_N) - (A_{N-1})	(C) = (B^a) x (1-RR)	(D)	(E)=(C)+(D)	(F)	(G) = $(F_N - F_{N-1})/F_{N-1}$	(H) = (E) / (F)	(I)	(J) = (G) - (H)
				Monetary Intermediation Cost Bank of Japan (¥)				**Monetary Intermediation Cost Bank of Japan (% Est.)**			
		MoneyStock	**¥ Increase**	**Money Stock Change**	**Actual (Net)**	**Total Annual**		**GDP[3]**	**Intermediation**	**Inflation %**	**GDP-Intermediation**
	Year	**M1-NS[1]**	**Prior Year**	**Intermediation Cost**	**Operations[2]**	**Intermediation**	**GDP[3]**			**CPI (EOY)[4]**	
#	(End 12/31)	(¥ Billions)	(¥ Billions)	(¥ Billions)	(¥ Billions)	**Cost** (¥ Billions)	(¥ Billions)	(% Growth)	(% GDP Cost)		Net (% GDP) (r_f)
0	1983	¥75,872.9					¥285,058.0				
1	1984	¥81,455.8	¥5,582.9	¥5,510.32		¥5,510.32	¥302,975.0	6.285%	1.819%	2.361%	4.467%
2	1985	¥84,363.8	¥2,908.0	¥2,870.20		¥2,870.20	¥325,402.0	7.402%	0.882%	1.961%	6.520%
3	1986	¥93,419.4	¥9,055.6	¥8,937.88		¥8,937.88	¥340,560.0	4.658%	2.624%	0.679%	2.034%
4	1987	¥98,836.3	¥5,416.9	¥5,346.48		¥5,346.48	¥354,170.0	3.996%	1.510%	0.112%	2.487%
5	1988	¥106,703.6	¥7,867.3	¥7,765.03		¥7,765.03	¥380,743.0	7.503%	2.039%	0.673%	5.463%
6	1989	¥107,164.6	¥461.0	¥455.01		¥455.01	¥410,122.0	7.716%	0.111%	2.230%	7.605%
7	1990	¥113,603.8	¥6,439.2	¥6,355.49		¥6,355.49	¥442,781.0	7.963%	1.435%	3.053%	6.528%
8	1991	¥124,073.6	¥10,469.8	¥10,333.69		¥10,333.69	¥469,422.0	6.017%	2.201%	3.280%	3.815%
9	1992	¥128,052.6	¥3,979.0	¥3,927.27		¥3,927.27	¥480,783.0	2.420%	0.817%	1.742%	1.603%
10	1993	¥136,568.4	¥8,515.8	¥8,405.09		¥8,405.09	¥483,712.0	0.609%	1.738%	1.309%	-1.128%
11	1994	¥141,129.8	¥4,561.4	¥4,502.10		¥4,502.10	¥488,450.0	0.980%	0.922%	0.596%	0.058%
12	1995	¥157,378.6	¥16,248.8	¥16,037.57		¥16,037.57	¥495,166.0	1.375%	3.239%	-0.099%	-1.864%
13	1996	¥177,386.1	¥20,007.5	¥19,747.40		¥19,747.40	¥505,012.0	1.988%	3.910%	0.099%	-1.922%
14	1997	¥192,934.3	¥15,548.2	¥15,346.07		¥15,346.07	¥515,644.0	2.105%	2.976%	1.877%	-0.871%
15	1998	¥203,925.6	¥10,991.3	¥10,848.41		¥10,848.41	¥504,905.0	-2.083%	2.149%	0.582%	-4.231%
16	1999	¥229,414.2	¥25,488.6	¥25,157.25		¥25,157.25	¥497,628.0	-1.441%	5.055%	-0.289%	-6.497%
17	2000	¥234,833.0	¥5,418.8	¥5,348.36		¥5,348.36	¥502,990.0	1.078%	1.063%	-0.677%	0.014%
18	2001	¥274,829.7	¥39,996.7	¥39,476.74		¥39,476.74	¥497,720.0	-1.048%	7.932%	-0.779%	-8.979%
19	2002	¥342,348.0	¥67,518.3	¥66,640.56		¥66,640.56	¥491,312.0	-1.287%	13.564%	-0.883%	-14.851%
20	2003	¥444,850.6	¥102,502.6	¥101,170.07		¥101,170.07	¥490,294.0	-0.207%	20.635%	-0.297%	-20.842%
21	2004	¥464,476.9	¥19,626.3	¥19,371.16	¥212.50	¥19,583.66	¥498,328.0	1.639%	3.930%	0.000%	-2.291%
22	2005	¥487,020.7	¥22,543.8	¥22,250.73	¥215.63	¥22,466.36	¥501,734.0	0.683%	4.478%	-0.298%	-3.794%
23	2006	¥480,108.9	-¥6,911.8	-¥6,821.95	¥247.99	-¥6,573.96	¥507,365.0	1.122%	-1.296%	0.299%	2.418%
24	2007	¥492,570.2	¥12,461.3	¥12,299.30	¥877.47	¥13,176.77	¥515,520.0	1.607%	2.556%	0.000%	-0.949%
25	2008	¥487,895.8	-¥4,674.4	-¥4,613.63	¥780.86	-¥3,832.77	¥504,378.0	-2.161%	-0.760%	1.390%	-1.401%
26	2009	¥492,680.4	¥4,784.6	¥4,722.40	¥415.01	¥5,137.41	¥470,937.0	-6.630%	1.091%	-1.371%	-7.721%
27	2010	¥508,212.8	¥15,532.4	¥15,330.48	¥669.69	¥16,000.17	¥479,172.0	1.749%	3.339%	-0.695%	-1.590%
28	2011	¥528,100.0	¥19,887.2	¥19,628.67	¥286.84	¥19,915.51	¥469,545.0	-2.009%	4.241%	-0.400%	-6.251%
	TOTALS	¥528,100.0	¥452,227.1	¥446,348.15	¥3,705.99	¥450,054.14	Growth Rates	**1.80%**	**3.28%**	**0.58%**	**-1.72%**
	Averages (1984-2011)		¥16,150.97	¥15,941.01	¥463.25	¥16,073.36	Count(Years)	28	28	28	28
	Ave Last 10 Years (2002-2011)		¥25,327.03	¥24,997.78	¥463.25	¥25,368.38	Last 10 Yrs	**-0.58%**	**4.99%**	**-0.23%**	**-5.98%**
		Bank of Japan Monetary Intermediation Cost Estimate					Count(Years)	10	10	10	10

Intermediation cost percentage estimated as [(M1 Money Stock growth in ¥) times (1-Reserve Requirement) + BOJ net operating cost] divided by [GDP (¥)].

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Notes
1-M1 comprises notes and coins in circulation outside banking corporations and demand and savings deposits of households, nonfinancial corporations, local governments, securities companies, Tanshi companies, and some other financial corporations such as securities finance companies with banking corporations in national currency.
2-BOJ operating expenses from Attachment 4 BOJ Operating Costs.
a-Ignores potential interest rate manipulation intermediation costs.

SOURCES:
1-M1 Money Stock data (Not Seasonally Adjusted) from Federal Reserve Bank of St. Louis at
http://research.stlouisfed.org/fred2/series/MYAGM1JPM189N/downloaddata?cid=32281
2-BOJ operating costs from Attachment 4 via Bank of Japan Annual Reviews at
http://www.boj.or.jp/en/about/activities/act/index.htm/
3-GDP from "What Was the Japan GDP or CPI Then?" MeasuringWorth, 2011 website at
http://www.measuringworth.com/datasets/japandata/
4-Inflation CPI from "What Was the Japan GDP or CPI Then?" MeasuringWorth, 2011 at
http://www.measuringworth.com/datasets/japandata/

Economic Recovery Plan for Japan

Bank of Japan (BOJ) Compounded Monetary Intermediation Cost to Economy 1984 to 2011[1]

M1 Money Stock Basis

Assumptions

(a)-Net GDP Productivity Growth Rate to economy (GDP Growth Rate (c) minus Intermediation Cost (b)) - (r_f)	-1.48%
(b)-Intermediation Cost Percentage[2]	3.28%
(c)-GDP Growth Rate (Net GDP + Intermediation Percentage)[2]	1.80%

GDP EARNINGS WITH FED INTERMEDIATION EXPENSE INCLUDED							GDP EARNINGS WITH FED INTERMEDIATION EXPENSE REMOVED					
(N)		(A)	(B) = (A) x (c)	(C) = (A) x (b)	(D) = (A)+(B)+(C)	(E)=∑ (C) Compounded		(N)		(A)	(B) = (A) x (c)	(C) = (A) x (b)	(D) = (A)+(B)+(C)
		Net GDP[3]	Productivity	BOJ	Net GDP	Compounded				GDP[3]	Productivity	BOJ	GDP
		Year(Begin)	Growth (Net)	Intermediation	Year (End)	Intermediation				Year(Begin)	Growth(Total)	Intermediation	Year (End)
Period	Year	(¥ Billions)	(¥ Billions)	Expense[2]	(¥ Billions)	Expense[4]	%	Period	Year	(¥ Billions)	(¥ Billions)	Expense[2]	(¥ Billions)
1	1984	¥285,058.0	¥5,126.4	-¥9,348.7	¥280,835.8	¥9,348.7	3.2%	1	1984	¥285,058.0	¥5,126.4	¥0.0	¥290,184.4
2	1985	¥280,835.8	¥5,050.5	-¥9,210.2	¥276,676.1	¥18,727.0	6.3%	2	1985	¥290,184.4	¥5,218.6	¥0.0	¥295,403.0
3	1986	¥276,676.1	¥4,975.7	-¥9,073.8	¥272,578.0	¥28,137.5	9.4%	3	1986	¥295,403.0	¥5,312.5	¥0.0	¥300,715.5
4	1987	¥272,578.0	¥4,902.0	-¥8,939.4	¥268,540.6	¥37,582.9	12.3%	4	1987	¥300,715.5	¥5,408.0	¥0.0	¥306,123.5
5	1988	¥268,540.6	¥4,829.4	-¥8,807.0	¥264,563.0	¥47,065.7	15.1%	5	1988	¥306,123.5	¥5,505.3	¥0.0	¥311,628.7
6	1989	¥264,563.0	¥4,757.8	-¥8,676.5	¥260,644.4	¥56,588.7	17.8%	6	1989	¥311,628.7	¥5,604.3	¥0.0	¥317,233.0
7	1990	¥260,644.4	¥4,687.4	-¥8,548.0	¥256,783.7	¥66,154.3	20.5%	7	1990	¥317,233.0	¥5,705.0	¥0.0	¥322,938.1
8	1991	¥256,783.7	¥4,617.9	-¥8,421.4	¥252,980.3	¥75,765.4	23.0%	8	1991	¥322,938.1	¥5,807.6	¥0.0	¥328,745.7
9	1992	¥252,980.3	¥4,549.5	-¥8,296.6	¥249,233.2	¥85,424.6	25.5%	9	1992	¥328,745.7	¥5,912.1	¥0.0	¥334,657.8
10	1993	¥249,233.2	¥4,482.2	-¥8,173.8	¥245,541.6	¥95,134.6	27.9%	10	1993	¥334,657.8	¥6,018.4	¥0.0	¥340,676.2
11	1994	¥245,541.6	¥4,415.8	-¥8,052.7	¥241,904.7	¥104,898.2	30.2%	11	1994	¥340,676.2	¥6,126.6	¥0.0	¥346,802.8
12	1995	¥241,904.7	¥4,350.4	-¥7,933.4	¥238,321.6	¥114,718.1	32.5%	12	1995	¥346,802.8	¥6,236.8	¥0.0	¥353,039.7
13	1996	¥238,321.6	¥4,285.9	-¥7,815.9	¥234,791.6	¥124,597.0	34.7%	13	1996	¥353,039.7	¥6,349.0	¥0.0	¥359,388.7
14	1997	¥234,791.6	¥4,222.4	-¥7,700.1	¥231,313.9	¥134,537.9	36.8%	14	1997	¥359,388.7	¥6,463.2	¥0.0	¥365,851.8
15	1998	¥231,313.9	¥4,159.9	-¥7,586.1	¥227,887.7	¥144,543.5	38.8%	15	1998	¥365,851.8	¥6,579.4	¥0.0	¥372,431.2
16	1999	¥227,887.7	¥4,098.3	-¥7,473.7	¥224,512.3	¥154,616.6	40.8%	16	1999	¥372,431.2	¥6,697.7	¥0.0	¥379,128.9
17	2000	¥224,512.3	¥4,037.6	-¥7,363.0	¥221,186.9	¥164,760.2	42.7%	17	2000	¥379,128.9	¥6,818.2	¥0.0	¥385,947.1
18	2001	¥221,186.9	¥3,977.8	-¥7,254.0	¥217,910.7	¥174,977.2	44.5%	18	2001	¥385,947.1	¥6,940.8	¥0.0	¥392,887.9
19	2002	¥217,910.7	¥3,918.9	-¥7,146.5	¥214,683.0	¥185,270.5	46.3%	19	2002	¥392,887.9	¥7,065.6	¥0.0	¥399,953.5
20	2003	¥214,683.0	¥3,860.8	-¥7,040.7	¥211,503.2	¥195,643.0	48.1%	20	2003	¥399,953.5	¥7,192.7	¥0.0	¥407,146.2
21	2004	¥211,503.2	¥3,803.6	-¥6,936.4	¥208,370.4	¥206,097.8	49.7%	21	2004	¥407,146.2	¥7,322.0	¥0.0	¥414,468.2
22	2005	¥208,370.4	¥3,747.3	-¥6,833.6	¥205,284.1	¥216,637.8	51.3%	22	2005	¥414,468.2	¥7,453.7	¥0.0	¥421,921.9
23	2006	¥205,284.1	¥3,691.8	-¥6,732.4	¥202,243.4	¥227,266.2	52.9%	23	2006	¥421,921.9	¥7,587.7	¥0.0	¥429,509.7
24	2007	¥202,243.4	¥3,637.1	-¥6,632.7	¥199,247.8	¥237,986.0	54.4%	24	2007	¥429,509.7	¥7,724.2	¥0.0	¥437,233.9
25	2008	¥199,247.8	¥3,583.2	-¥6,534.5	¥196,296.6	¥248,800.4	55.9%	25	2008	¥437,233.9	¥7,863.1	¥0.0	¥445,097.0
26	2009	¥196,296.6	¥3,530.2	-¥6,437.7	¥193,389.1	¥259,712.4	57.3%	26	2009	¥445,097.0	¥8,004.5	¥0.0	¥453,101.5
27	2010	¥193,389.1	¥3,477.9	-¥6,342.3	¥190,524.7	¥270,725.3	58.7%	27	2010	¥453,101.5	¥8,148.5	¥0.0	¥461,250.0
28	2011	¥190,524.7	¥3,426.4	-¥6,248.4	**¥187,702.6**	**¥281,842.4**	**60.0%**	28	2011	¥461,250.0	¥8,295.0	¥0.0	**¥469,545.0**
	Growth Rates	-1.48%	-1.48%	-1.48%	12.94%				Growth Rates	1.80%	1.80%	N.A.	1.80%
	Count (Years)	28	28	28	28				Count (Years)	28	28	28	28

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Notes/Sources:

1-Format adapted from "The Tyranny of Compounding Costs" at
 http://www.pbs.org/wgbh/pages/frontline/retirement/etc/tyranny.html
2-Intermediation and GDP growth rate estimates from Attachment 5.
3-Initial GDP from Attachment 5 via MeasuringWorth, 2011 website at
 http://www.measuringworth.com/datasets/japandata/
4-BOJ M1 monetary intermediation expense compounded at total growth rate.

BOJ Monetary Intermediation Cost 1984-2011	¥ Billions	% Percent
Economic (GDP) earnings 2011 w/o BOJ intermediation expense	¥469,545.0	100.0%
Economy earnings with BOJ Intermediation expense deducted	¥187,702.6	40.0%
BOJ Intermediation Expense to Non Bank Economy since 1984	**¥281,842.4**	**60.0%**
Bank of Japan Intermediation costs, primarily monetary expansion inflation, estimated to have wealth transferred approximately 60% of economic system returns to banking sector from 1984 to 2011.		

Economic Recovery Plan for Japan

BOJ Annual Monetary Intermediation Cost 1956 to 2011 using M1 Money Stock[1]

							Assumptions
						Bank of Japan Reserve Requirement (RR)	1.3%

(N)		(A)	(B) = $(A_N) - (A_{N-1})$	(C) = $(B^a) \times (1\text{-RR})$	(D)	(E)=(C)+(D)	(F)	(G) = $(F_N - F_{N-1})/F_{N-1}$	(H) = (E)/(F)	(I)	(J) = (G) - (H)
		MoneyStock M1-NS[1]	**¥ Increase Prior Year**	**Money Stock Intermediation Cost (¥ Billions)**	**Actual (Net) Operations[2]**	**Total Annual Intermediation Cost (¥ Billions)**	**GDP[3]**	**GDP[3]**	**Intermediation**	**Inflation %**	**GDP-Intermediation**
#	Year (End 3/31)	(¥ Billions)	(¥ Billions)		(¥ Billions)		(¥ Billions)	(% Growth)	(% GDP Cost)	CPI (EOY)[4]	Net (% GDP) (r_f)
0	1955	¥2,025.8					¥8,355.9				
1	1956	¥2,276.1	¥250.3	¥247.0		¥247.0	¥9,406.8	12.577%	2.626%	0.000%	9.950%
2	1957	¥2,382.2	¥106.1	¥104.7		¥104.7	¥10,840.6	15.242%	0.966%	3.468%	14.276%
3	1958	¥2,670.6	¥288.4	¥284.7		¥284.7	¥11,519.5	6.263%	2.471%	-0.559%	3.792%
4	1959	¥3,159.5	¥488.9	¥482.5		¥482.5	¥13,168.8	14.317%	3.664%	1.124%	10.653%
5	1960	¥3,827.6	¥668.1	¥659.4		¥659.4	¥15,983.6	21.375%	4.126%	3.889%	17.249%
6	1961	¥4,586.5	¥758.9	¥749.0		¥749.0	¥19,305.0	20.780%	3.880%	5.348%	16.900%
7	1962	¥5,541.7	¥955.2	¥942.8		¥942.8	¥21,906.9	13.478%	4.304%	6.599%	9.174%
8	1963	¥7,029.8	¥1,488.1	¥1,468.8		¥1,468.8	¥25,072.3	14.449%	5.858%	7.619%	8.591%
9	1964	¥7,952.9	¥923.1	¥911.1		¥911.1	¥29,493.2	17.633%	3.089%	3.982%	14.543%
10	1965	¥9,426.4	¥1,473.5	¥1,454.3		¥1,454.3	¥32,812.4	11.254%	4.432%	6.383%	6.822%
11	1966	¥10,707.1	¥1,280.7	¥1,264.1		¥1,264.1	¥38,107.8	16.138%	3.317%	5.200%	12.821%
12	1967	¥12,066.4	¥1,359.3	¥1,341.6		¥1,341.6	¥44,657.6	17.188%	3.004%	4.183%	14.183%
13	1968	¥14,069.7	¥2,003.3	¥1,977.3		¥1,977.3	¥52,888.6	18.431%	3.739%	5.109%	14.693%
14	1969	¥16,977.7	¥2,908.0	¥2,870.2		¥2,870.2	¥62,127.5	17.469%	4.620%	5.208%	12.849%
15	1970	¥19,913.2	¥2,935.5	¥2,897.3		¥2,897.3	¥73,225.4	17.863%	3.957%	7.921%	13.906%
16	1971	¥25,905.8	¥5,992.6	¥5,914.7		¥5,914.7	¥80,569.8	10.030%	7.341%	6.116%	2.689%
17	1972	¥31,661.2	¥5,755.4	¥5,680.6		¥5,680.6	¥92,243.8	14.489%	6.158%	4.899%	8.331%
18	1973	¥37,865.3	¥6,204.1	¥6,123.4		¥6,123.4	¥112,315.0	21.759%	5.452%	11.813%	16.307%
19	1974	¥42,375.6	¥4,510.3	¥4,451.7		¥4,451.7	¥134,025.0	19.330%	3.322%	23.096%	16.008%
20	1975	¥47,020.7	¥4,645.1	¥4,584.7		¥4,584.7	¥148,085.0	10.491%	3.096%	11.776%	7.395%
21	1976	¥52,992.6	¥5,971.9	¥5,894.3		¥5,894.3	¥166,302.0	12.302%	3.544%	9.464%	8.757%
22	1977	¥57,018.9	¥4,026.3	¥3,974.0		¥3,974.0	¥185,320.0	11.436%	2.144%	7.993%	9.291%
23	1978	¥63,699.0	¥6,680.1	¥6,593.3		¥6,593.3	¥204,071.0	10.118%	3.231%	4.230%	6.887%
24	1979	¥67,167.4	¥3,468.4	¥3,423.3		¥3,423.3	¥221,186.0	8.387%	1.548%	3.768%	6.839%
25	1980	¥65,819.5	-¥1,347.9	-¥1,330.4		-¥1,330.4	¥242,839.0	9.789%	-0.548%	7.821%	10.337%
26	1981	¥72,444.4	¥6,624.9	¥6,538.8		¥6,538.8	¥261,068.0	7.507%	2.505%	4.922%	5.002%
27	1982	¥76,508.7	¥4,064.3	¥4,011.5		¥4,011.5	¥274,086.0	4.986%	1.464%	2.716%	3.523%
28	1983	¥75,872.9	-¥635.8	-¥627.5		-¥627.5	¥285,058.0	4.003%	-0.220%	1.803%	4.223%
29	1984	¥81,455.8	¥5,582.9	¥5,510.3		¥5,510.3	¥302,975.0	6.285%	1.819%	2.361%	4.467%
30	1985	¥84,363.8	¥2,908.0	¥2,870.2		¥2,870.2	¥325,402.0	7.402%	0.882%	1.961%	6.520%
31	1986	¥93,419.4	¥9,055.6	¥8,937.9		¥8,937.9	¥340,560.0	4.658%	2.624%	0.679%	2.034%
32	1987	¥98,836.3	¥5,416.9	¥5,346.5		¥5,346.5	¥354,170.0	3.996%	1.510%	0.112%	2.487%
33	1988	¥106,703.6	¥7,867.3	¥7,765.0		¥7,765.0	¥380,743.0	7.503%	2.039%	0.673%	5.463%
34	1989	¥107,164.6	¥461.0	¥455.0		¥455.0	¥410,122.0	7.716%	0.111%	2.230%	7.605%
35	1990	¥113,603.8	¥6,439.2	¥6,355.5		¥6,355.5	¥442,781.0	7.963%	1.435%	3.053%	6.528%
36	1991	¥124,073.6	¥10,469.8	¥10,333.7		¥10,333.7	¥469,422.0	6.017%	2.201%	3.280%	3.815%
37	1992	¥128,052.6	¥3,979.0	¥3,927.3		¥3,927.3	¥480,783.0	2.420%	0.817%	1.742%	1.603%
38	1993	¥136,568.4	¥8,515.8	¥8,405.1		¥8,405.1	¥483,712.0	0.609%	1.738%	1.309%	-1.128%
39	1994	¥141,129.8	¥4,561.4	¥4,502.1		¥4,502.1	¥488,450.0	0.980%	0.922%	0.596%	0.058%
40	1995	¥157,378.6	¥16,248.8	¥16,037.6		¥16,037.6	¥495,166.0	1.375%	3.239%	-0.099%	-1.864%
41	1996	¥177,386.1	¥20,007.5	¥19,747.4		¥19,747.4	¥505,012.0	1.988%	3.910%	0.099%	-1.922%
42	1997	¥192,934.3	¥15,548.2	¥15,346.1		¥15,346.1	¥515,644.0	2.105%	2.976%	1.877%	-0.871%
43	1998	¥203,925.6	¥10,991.3	¥10,848.4		¥10,848.4	¥504,905.0	-2.083%	2.149%	0.582%	-4.231%
44	1999	¥229,414.2	¥25,488.6	¥25,157.2		¥25,157.2	¥497,628.0	-1.441%	5.055%	-0.289%	-6.497%
45	2000	¥234,833.0	¥5,418.8	¥5,348.4		¥5,348.4	¥502,990.0	1.078%	1.063%	-0.677%	0.014%
46	2001	¥274,829.7	¥39,996.7	¥39,476.7		¥39,476.7	¥497,720.0	-1.048%	7.932%	-0.779%	-8.979%
47	2002	¥342,348.0	¥67,518.3	¥66,640.6		¥66,640.6	¥491,312.0	-1.287%	13.564%	-0.883%	-14.851%
48	2003	¥444,850.6	¥102,502.6	¥101,170.1		¥101,170.1	¥490,294.0	-0.207%	20.635%	-0.297%	-20.842%
49	2004	¥464,476.9	¥19,626.3	¥19,371.2	¥212.5	¥19,583.7	¥498,328.0	1.639%	3.930%	0.000%	-2.291%
50	2005	¥487,020.7	¥22,543.8	¥22,250.7	¥215.6	¥22,466.4	¥501,734.0	0.683%	4.478%	-0.298%	-3.794%
51	2006	¥480,108.9	-¥6,911.8	-¥6,821.9	¥248.0	-¥6,574.0	¥507,365.0	1.122%	-1.296%	0.299%	2.418%
52	2007	¥492,570.2	¥12,461.3	¥12,299.3	¥877.5	¥13,176.8	¥515,520.0	1.607%	2.556%	0.000%	-0.949%
53	2008	¥487,895.8	-¥4,674.4	-¥4,613.6	¥780.9	-¥3,832.8	¥504,378.0	-2.161%	-0.760%	1.390%	-1.401%
54	2009	¥492,680.4	¥4,784.6	¥4,722.4	¥415.0	¥5,137.4	¥470,937.0	-6.630%	1.091%	-1.371%	-7.721%
55	2010	¥508,212.8	¥15,532.4	¥15,330.5	¥669.7	¥16,000.2	¥479,172.0	1.749%	3.339%	-0.695%	-1.590%
56	2011	¥528,100.0	¥19,887.2	¥19,628.7	¥286.8	¥19,915.5	¥469,545.0	-2.009%	4.241%	-0.400%	-6.251%
TOTALS		¥528,100.0	¥526,074.2	¥519,235.2	¥3,706.0	¥522,941.2	Growth Rates	**7.46%**	**3.29%**	**3.18%**	**4.04%**
Averages			¥9,394.18	¥9,272.06	¥463.25	¥9,338.24	Count(Years)	56	56	56	56
Ave 2002-11(Last 10 Yrs)			¥25,327.03	¥24,997.78	¥463.25	¥25,368.38			Average Annual Growth		

Bank of Japan Monetary Intermediation Cost Estimate

Intermediation cost percentage estimated as [(M1 Money Stock growth in ¥) times (1- Reserve Requirement) + BOJ net operating cost] divided by [GDP (¥)].

There is no economic reward for monetary leverage from M&M Theorem.
(Corollary, risk free rate (r_f) should be GDP growth rate, not gov't debt rate)

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Notes

1-M1 comprises notes and coins in circulation outside banking corporations and demand and savings deposits of households, nonfinancial corporations, local governments, securities companies, Tanshi companies, and some other financial corporations such as securities finance companies with banking corporations in national currency.

2-BOJ operating expenses from Attachment 4 BOJ Operating Costs.

a-Ignores potential interest rate manipulation intermediation costs.

SOURCES:
1-M1 Money Stock data (Not Seasonally Adjusted) from St. Louis Fed at
http://research.stlouisfed.org/fred2/series/MYAGM1JPM189N/downloaddata?cid=3228
2-BOJ operating costs from Attachment 4 via Bank of Japan Annual Reviews
http://www.boj.or.jp/en/about/activities/act/index.htm/
3-GDP from "What Was the Japan GDP or CPI Then?" MeasuringWorth at
http://www.measuringworth.com/datasets/japandata/
4-CPI from "What Was the Japan GDP or CPI Then?" MeasuringWorth at
http://www.measuringworth.com/datasets/japandata/

Economic Recovery Plan for Japan

Bank of Japan (BOJ) Compounded Monetary Intermediation Cost to Economy 1956 to 2011[1]
M1 Money Stock Basis

Assumptions

(a)-Net GDP Productivity Growth Rate to economy (GDP Growth Rate (c) minus Intermediation Cost (b)) - (r_f)	4.16%
(b)-Intermediation Cost Percentage[2]	3.29%
(c)-GDP Growth Rate (Net GDP + Intermediation Percentage)[2]	7.46%

GDP EARNINGS WITH FED INTERMEDIATION EXPENSE INCLUDED

(N)		(A)	(B) = (A) x (c)	(C) = (A) x (b)	(D) = (A)+(B)+(C)	(E)=∑ (C) Compounded	
Period	Year	Net GDP[3] Yr(Begin) (¥ Billions)	Productivity Growth (Net) (¥ Billions)	BOJ Intermediation Expense	Net GDP Year (End) (¥ Billions)	Compounded Intermediation Expense[4] (¥ Billions)	%
1[3]	1956	¥8,355.9	¥623.3	-¥275.3	¥8,703.9	¥275.3	3.1%
2	1957	¥8,703.9	¥649.3	-¥286.8	¥9,066.4	¥582.6	6.0%
3	1958	¥9,066.4	¥676.3	-¥298.7	¥9,443.9	¥924.8	8.9%
4	1959	¥9,443.9	¥704.5	-¥311.2	¥9,837.2	¥1,305.0	11.7%
5	1960	¥9,837.2	¥733.8	-¥324.1	¥10,246.9	¥1,726.4	14.4%
6	1961	¥10,246.9	¥764.4	-¥337.6	¥10,673.7	¥2,192.8	17.0%
7	1962	¥10,673.7	¥796.2	-¥351.7	¥11,118.2	¥2,708.1	19.6%
8	1963	¥11,118.2	¥829.3	-¥366.3	¥11,581.2	¥3,276.4	22.1%
9	1964	¥11,581.2	¥863.9	-¥381.6	¥12,063.5	¥3,902.4	24.4%
10	1965	¥12,063.5	¥899.9	-¥397.5	¥12,565.9	¥4,590.9	26.8%
11	1966	¥12,565.9	¥937.3	-¥414.0	¥13,089.2	¥5,347.4	29.0%
12	1967	¥13,089.2	¥976.4	-¥431.3	¥13,634.3	¥6,177.6	31.2%
13	1968	¥13,634.3	¥1,017.0	-¥449.2	¥14,202.1	¥7,087.6	33.3%
14	1969	¥14,202.1	¥1,059.4	-¥467.9	¥14,793.6	¥8,084.2	35.3%
15	1970	¥14,793.6	¥1,103.5	-¥487.4	¥15,409.7	¥9,174.7	37.3%
16	1971	¥15,409.7	¥1,149.5	-¥507.7	¥16,051.4	¥10,366.8	39.2%
17	1972	¥16,051.4	¥1,197.3	-¥528.9	¥16,719.9	¥11,668.9	41.1%
18	1973	¥16,719.9	¥1,247.2	-¥550.9	¥17,416.2	¥13,090.3	42.9%
19	1974	¥17,416.2	¥1,299.1	-¥573.8	¥18,141.5	¥14,640.5	44.7%
20	1975	¥18,141.5	¥1,353.2	-¥597.7	¥18,897.0	¥16,330.4	46.4%
21	1976	¥18,897.0	¥1,409.6	-¥622.6	¥19,684.0	¥18,171.1	48.0%
22	1977	¥19,684.0	¥1,468.3	-¥648.6	¥20,503.7	¥20,175.2	49.6%
23	1978	¥20,503.7	¥1,529.5	-¥675.6	¥21,357.6	¥22,355.7	51.1%
24	1979	¥21,357.6	¥1,593.1	-¥703.7	¥22,247.1	¥24,726.9	52.6%
25	1980	¥22,247.1	¥1,659.5	-¥733.0	¥23,173.6	¥27,304.4	54.1%
26	1981	¥23,173.6	¥1,728.6	-¥763.5	¥24,138.6	¥30,104.7	55.5%
27	1982	¥24,138.6	¥1,800.6	-¥795.3	¥25,143.9	¥33,145.7	56.9%
28	1983	¥25,143.9	¥1,875.6	-¥828.4	¥26,191.1	¥36,446.6	58.2%
29	1984	¥26,191.1	¥1,953.7	-¥862.9	¥27,281.8	¥40,028.2	59.5%
30	1985	¥27,281.8	¥2,035.1	-¥898.9	¥28,418.0	¥43,912.9	60.7%
31	1986	¥28,418.0	¥2,119.8	-¥936.3	¥29,601.4	¥48,124.9	61.9%
32	1987	¥29,601.4	¥2,208.1	-¥975.3	¥30,834.2	¥52,690.0	63.1%
33	1988	¥30,834.2	¥2,300.0	-¥1,015.9	¥32,118.3	¥57,636.3	64.2%
34	1989	¥32,118.3	¥2,395.8	-¥1,058.2	¥33,455.9	¥62,993.9	65.3%
35	1990	¥33,455.9	¥2,495.6	-¥1,102.3	¥34,849.2	¥68,795.2	66.4%
36	1991	¥34,849.2	¥2,599.5	-¥1,148.2	¥36,300.5	¥75,075.1	67.4%
37	1992	¥36,300.5	¥2,707.8	-¥1,196.0	¥37,812.3	¥81,871.3	68.4%
38	1993	¥37,812.3	¥2,820.6	-¥1,245.8	¥39,387.0	¥89,224.2	69.4%
39	1994	¥39,387.0	¥2,938.0	-¥1,297.7	¥41,027.3	¥97,177.5	70.3%
40	1995	¥41,027.3	¥3,060.4	-¥1,351.8	¥42,735.9	¥105,778.1	71.2%
41	1996	¥42,735.9	¥3,187.8	-¥1,408.1	¥44,515.7	¥115,076.6	72.1%
42	1997	¥44,515.7	¥3,320.6	-¥1,466.7	¥46,369.5	¥125,127.3	73.0%
43	1998	¥46,369.5	¥3,458.9	-¥1,527.8	¥48,300.6	¥135,988.9	73.8%
44	1999	¥48,300.6	¥3,602.9	-¥1,591.4	¥50,312.1	¥147,724.2	74.6%
45	2000	¥50,312.1	¥3,753.0	-¥1,657.7	¥52,407.4	¥160,401.2	75.4%
46	2001	¥52,407.4	¥3,909.3	-¥1,726.7	¥54,590.0	¥174,092.9	76.1%
47	2002	¥54,590.0	¥4,072.1	-¥1,798.6	¥56,863.4	¥188,877.8	76.9%
48	2003	¥56,863.4	¥4,241.7	-¥1,873.5	¥59,231.5	¥204,840.5	77.6%
49	2004	¥59,231.5	¥4,418.3	-¥1,951.6	¥61,698.2	¥222,071.9	78.3%
50	2005	¥61,698.2	¥4,602.3	-¥2,032.8	¥64,267.7	¥240,670.0	78.9%
51	2006	¥64,267.7	¥4,794.0	-¥2,117.5	¥66,944.2	¥260,740.0	79.6%
52	2007	¥66,944.2	¥4,993.6	-¥2,205.7	¥69,732.1	¥282,395.3	80.2%
53	2008	¥69,732.1	¥5,201.6	-¥2,297.6	¥72,636.1	¥305,757.8	80.8%
54	2009	¥72,636.1	¥5,418.2	-¥2,393.2	¥75,661.1	¥330,958.7	81.4%
55	2010	¥75,661.1	¥5,643.9	-¥2,492.9	¥78,812.1	¥358,139.1	82.0%
56	2011	¥78,812.1	¥5,878.9	-¥2,596.7	**¥82,094.2**	**¥387,450.8**	82.5%
Compound Growth Rates		4.16%	4.16%	4.16%	13.82%		
Count (Years)		56	56	56	56		

GDP EARNINGS WITH FED INTERMEDIATION EXPENSE REMOVED

(N)		(A)	(B) = (A) x (c)	(C) = (A) x (b)	(D) = (A)+(B)+(C)
Period	Year	GDP[3] Year(Begin) (¥ Billions)	Productivity Growth(Total) (¥ Billions)	BOJ Intermediation Expense	GDP Year (End) (¥ Billions)
1[3]	1956	¥8,355.9	¥623.3	¥0.0	¥8,979.2
2	1957	¥8,979.2	¥669.8	¥0.0	¥9,649.0
3	1958	¥9,649.0	¥719.8	¥0.0	¥10,368.7
4	1959	¥10,368.7	¥773.4	¥0.0	¥11,142.2
5	1960	¥11,142.2	¥831.1	¥0.0	¥11,973.3
6	1961	¥11,973.3	¥893.1	¥0.0	¥12,866.5
7	1962	¥12,866.5	¥959.8	¥0.0	¥13,826.2
8	1963	¥13,826.2	¥1,031.4	¥0.0	¥14,857.6
9	1964	¥14,857.6	¥1,108.3	¥0.0	¥15,965.9
10	1965	¥15,965.9	¥1,191.0	¥0.0	¥17,156.8
11	1966	¥17,156.8	¥1,279.8	¥0.0	¥18,436.6
12	1967	¥18,436.6	¥1,375.3	¥0.0	¥19,811.9
13	1968	¥19,811.9	¥1,477.8	¥0.0	¥21,289.7
14	1969	¥21,289.7	¥1,588.1	¥0.0	¥22,877.8
15	1970	¥22,877.8	¥1,706.5	¥0.0	¥24,584.3
16	1971	¥24,584.3	¥1,833.8	¥0.0	¥26,418.2
17	1972	¥26,418.2	¥1,970.6	¥0.0	¥28,388.8
18	1973	¥28,388.8	¥2,117.6	¥0.0	¥30,506.4
19	1974	¥30,506.4	¥2,275.6	¥0.0	¥32,782.0
20	1975	¥32,782.0	¥2,445.3	¥0.0	¥35,227.4
21	1976	¥35,227.4	¥2,627.7	¥0.0	¥37,855.1
22	1977	¥37,855.1	¥2,823.8	¥0.0	¥40,678.9
23	1978	¥40,678.9	¥3,034.4	¥0.0	¥43,713.3
24	1979	¥43,713.3	¥3,260.7	¥0.0	¥46,974.0
25	1980	¥46,974.0	¥3,504.0	¥0.0	¥50,478.0
26	1981	¥50,478.0	¥3,765.3	¥0.0	¥54,243.4
27	1982	¥54,243.4	¥4,046.2	¥0.0	¥58,289.6
28	1983	¥58,289.6	¥4,348.0	¥0.0	¥62,637.6
29	1984	¥62,637.6	¥4,672.4	¥0.0	¥67,310.0
30	1985	¥67,310.0	¥5,020.9	¥0.0	¥72,330.9
31	1986	¥72,330.9	¥5,395.4	¥0.0	¥77,726.4
32	1987	¥77,726.4	¥5,797.9	¥0.0	¥83,524.3
33	1988	¥83,524.3	¥6,230.4	¥0.0	¥89,754.7
34	1989	¥89,754.7	¥6,695.1	¥0.0	¥96,449.8
35	1990	¥96,449.8	¥7,194.6	¥0.0	¥103,644.4
36	1991	¥103,644.4	¥7,731.2	¥0.0	¥111,375.6
37	1992	¥111,375.6	¥8,307.9	¥0.0	¥119,683.5
38	1993	¥119,683.5	¥8,927.7	¥0.0	¥128,611.2
39	1994	¥128,611.2	¥9,593.6	¥0.0	¥138,204.8
40	1995	¥138,204.8	¥10,309.2	¥0.0	¥148,514.0
41	1996	¥148,514.0	¥11,078.2	¥0.0	¥159,592.3
42	1997	¥159,592.3	¥11,904.6	¥0.0	¥171,496.9
43	1998	¥171,496.9	¥12,792.6	¥0.0	¥184,289.5
44	1999	¥184,289.5	¥13,746.9	¥0.0	¥198,036.4
45	2000	¥198,036.4	¥14,772.3	¥0.0	¥212,808.7
46	2001	¥212,808.7	¥15,874.2	¥0.0	¥228,682.9
47	2002	¥228,682.9	¥17,058.3	¥0.0	¥245,741.2
48	2003	¥245,741.2	¥18,330.8	¥0.0	¥264,072.0
49	2004	¥264,072.0	¥19,698.2	¥0.0	¥283,770.2
50	2005	¥283,770.2	¥21,167.5	¥0.0	¥304,937.7
51	2006	¥304,937.7	¥22,746.5	¥0.0	¥327,684.2
52	2007	¥327,684.2	¥24,443.2	¥0.0	¥352,127.4
53	2008	¥352,127.4	¥26,266.5	¥0.0	¥378,393.9
54	2009	¥378,393.9	¥28,225.9	¥0.0	¥406,619.8
55	2010	¥406,619.8	¥30,331.3	¥0.0	¥436,951.1
56	2011	¥436,951.1	¥32,593.9	¥0.0	**¥469,545.0**
Growth Rates		7.46%	7.46%	N.A.	7.46%
Count (Years)		56	56	56	56

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Notes/Sources:

1-Format adapted from "The Tyranny of Compounding Costs" at
   http://www.pbs.org/wgbh/pages/frontline/retirement/etc/tyranny.html
2-Intermediation and GDP growth rate estimates from Attachment 7.
3-Initial GDP from Attachment 7 via MeasuringWorth, 2011 website at
   http://www.measuringworth.com/datasets/japandata/
4-BOJ M1 Monetary Intermediation expense compounded at total growth rate.

BOJ Monetary Intermediation Cost 1956-2011	¥ Billions	% Percent
Economic (GDP) earnings 2011 w/o BOJ intermediation expense	¥469,545.0	100.0%
Economy earnings with BOJ Intermediation expense deducted	¥82,094.2	17.5%
BOJ Intermediation Expense to Non Bank Economy since 1956	**¥387,450.8**	**82.5%**

Bank of Japan Intermediation costs estimated to have wealth transferred approximately 82.5% of economic system returns to banking sector from 1956 to 2011.

Economic Recovery Plan for Japan

Japanese Commercial Banks Consolidated Conversion Estimate[1]
March 31, 2012
(¥ Millions)

	I. Conversion to 100% Reserve Demand Deposits			→	II. Split into Deposit Only and Commercial Banks		
	March 31, 2012			→	March 31, 2012		
ASSETS	**Existing (Before)**	**Funds Transfers →**	**Converted Form (After)**	→	**Depositor Owned Depository**	**Commercial Intermediary**	**Reconciliation Total**
	(¥ Millions)		DEMAND SECTION	% Deposits	DEMAND SECTION		
CASH							
Cash and due from banks	¥39,974,797	¥625,016,428	¥664,991,225	100.0%	¥664,991,225	¥0	¥664,991,225
Total Cash	¥39,974,797	¥625,016,428	¥664,991,225	→	¥664,991,225	¥0	¥664,991,225
JAPANESE GOVERNMENT SECURITIES		→	NON-DEMAND SECTION		NON-DEMAND SECTION		
Trading Government Bond Securities[2]	¥34,508	-¥34,508	¥0	→		¥0	¥0
Government Bond Securities[2]	¥166,846,737	-¥166,846,737	¥0	→		¥0	¥0
Total Japanese Gov't Securities	¥166,881,245	-¥166,881,245	¥0	→	¥0	¥0	¥0
INVESTMENTS		→					
Receivables under resale agreements	¥1,896,980	¥0	¥1,896,980	→		¥1,896,980	¥1,896,980
Receivables under securities borrowing transactions	¥3,403,682	¥0	¥3,403,682	→		¥3,403,682	¥3,403,682
Bills bought	¥21,171	¥0	¥21,171	→		¥21,171	¥21,171
Monetary claims bought	¥5,410,466	¥0	¥5,410,466	→		¥5,410,466	¥5,410,466
Trading assets	¥17,897,480	¥0	¥17,897,480	→		¥17,897,480	¥17,897,480
Trading account securities, net trading gov't bonds	¥83,166	¥0	¥83,166	→		¥83,166	¥83,166
Securities, net of government bonds	¥111,805,158	¥0	¥111,805,158	→		¥111,805,158	¥111,805,158
LESS: Allowances for Investment losses	-¥88,061	¥0	-¥88,061	→		-¥88,061	-¥88,061
Total Investments	¥140,430,042	¥0	¥140,430,042	→	¥0	¥140,430,042	¥140,430,042
LOANS AND LEASES		→					
Call Loans	¥16,680,970	¥0	¥16,680,970	→		¥16,680,970	¥16,680,970
Loans and bills discounted	¥458,254,022	¥0	¥458,254,022	→		¥458,254,022	¥458,254,022
LESS: Allowance for loan losses	-¥5,088,910	¥0	-¥5,088,910	→		-¥5,088,910	-¥5,088,910
Total Loans	¥469,846,082	¥0	¥469,846,082	→	¥0	¥469,846,082	¥469,846,082
OTHER ASSETS		→					
Money held in trust	¥824,404	¥0	¥824,404	→		$824,404	$824,404
Foreign exchanges	¥3,909,699	¥0	¥3,909,699	→		$3,909,699	$3,909,699
Other assets	¥21,694,962	¥0	¥21,694,962	→		$21,694,962	$21,694,962
Tangible fixed assets (Land, Buildings & Leases)[4]	¥6,509,674	¥0	¥6,509,674	Start-up(Est.)[4]	¥3,254,837	¥3,254,837	¥6,509,674
Intangible fixed assets	¥1,341,887	¥0	¥1,341,887	→		¥1,341,887	¥1,341,887
Deferred tax and other deferred assets	¥2,152,691	¥0	¥2,152,691	→		¥2,152,691	¥2,152,691
Customers' liabilities for acceptances & guarantees	¥17,129,678	¥0	¥17,129,678	→		¥17,129,678	¥17,129,678
Total Other Assets	¥53,562,995	¥0	¥53,562,995	→	¥3,254,837	¥50,308,158	¥53,562,995
Total Assets	**¥870,695,161**	**¥458,135,183**	**¥1,328,830,344**	**Total Assets**	**¥668,246,062**	**¥660,584,282**	**¥1,328,830,344**
LIABILITIES & EQUITY							
DEPOSITS (CASH EQUIVALENTS)		→	DEMAND SECTION	→	DEMAND SECTION		
Deposits[3]	¥616,711,622	¥0	¥616,711,622	→	¥616,711,622		¥616,711,622
Negotiable certificates of deposit[3]	¥48,279,603	¥0	¥48,279,603	→	¥48,279,603		¥48,279,603
Total Deposits	¥664,991,225	¥0	¥664,991,225	→	¥664,991,225	¥0	¥664,991,225
BORROWINGS		→	NON-DEMAND SECTION		NON-DEMAND SECTION		
Debentures	¥519,983	¥0	¥519,983	→		¥519,983	¥519,983
Call money	¥20,953,423	¥0	¥20,953,423	→		¥20,953,423	¥20,953,423
Payables under repurchase agreements	¥14,962,914	¥0	¥14,962,914	→		¥14,962,914	¥14,962,914
Payables under securities lending transactions	¥16,588,364	¥0	¥16,588,364	→		¥16,588,364	¥16,588,364
Bills sold	¥0	¥0	¥0	→		¥0	¥0
Commercial papers	¥1,545,410	¥0	¥1,545,410	→		¥1,545,410	¥1,545,410
Borrowed money	¥36,687,441	¥0	¥36,687,441	→		¥36,687,441	¥36,687,441
Short-term bonds payable	¥366,768	¥0	¥366,768	→		¥366,768	¥366,768
Bonds payable[4]	¥15,869,202	¥0	¥15,869,202	For Start-up[4]	¥3,254,837	¥12,614,365	¥15,869,202
Bonds with subscription rights to shares	¥58,502	¥0	¥58,502	→		¥58,502	¥58,502
Borrowed money from trust account	¥4,004,337	¥0	¥4,004,337	→		¥4,004,337	¥4,004,337
Total Borrowings	¥111,556,344	¥0	¥111,556,344	→	¥3,254,837	¥108,301,507	¥111,556,344
OTHER LIABILITIES		→					
Bonded Debt to Japanese Government[5]	¥0	¥458,135,183	¥458,135,183	→		¥458,135,183	¥458,135,183
Trading Liabilities (Securities & derivatives)	¥12,303,200	¥0	¥12,303,200	→		¥12,303,200	¥12,303,200
Foreign exchanges	¥1,548,519	¥0	¥1,548,519	→		¥1,548,519	¥1,548,519
Other Liabilities[6]	¥19,255,910	¥0	¥19,255,910	→		¥19,255,910	¥19,255,910
Provisions for bonuses & benefits	¥685,728	¥0	¥685,728	→		¥685,728	¥685,728
Reserves under special laws & other reserves	¥296,047	¥0	¥296,047	→		¥296,047	¥296,047
Deferred tax and other deferred liabilities[3]	¥816,589	¥0	¥816,589	→		¥816,589	¥816,589
Acceptances & guarantees	¥17,129,678	¥0	¥17,129,678	→		¥17,129,678	¥17,129,678
Total Other Liabilities	¥52,035,671	¥458,135,183	¥510,170,854	→	¥0	¥510,170,854	¥510,170,854
Total Liabilities	**¥828,583,240**	**¥458,135,183**	**¥1,286,718,423**	**Total Liabilities**	**¥668,246,062**	**¥618,472,361**	**¥1,286,718,423**
NET ASSETS/EQUITY		→					
Shareholder Net Assets/Equity	¥42,111,921	¥0	¥42,111,921	→	¥0	¥42,111,921	¥42,111,921
Total Net Assets/Equity	**¥42,111,921**	**¥0**	**¥42,111,921**	**Total Equity**	**¥0**	**¥42,111,921**	**¥42,111,921**
Total Liabilities & Equity/Capital	**¥870,695,161**	**¥458,135,183**	**¥1,328,830,344**	→	**¥668,246,062**	**¥660,584,282**	**¥1,328,830,344**
Equity to Assets Ratio	4.84%	→	3.17%		0.00%	6.37%	3.17%

NOTES

1-Totals may not equal sum of components due to rounding.

2-Japanese government securities would be retired as a book entry and netted with borrowing from government required to fully reserve and fund cash demand deposit accounts.

3-All deposits treated as demand deposits and reserved 100%.

4-Start-up for depository locations and FF&E estimated % of Tangible fixed assets (Land, Buildings & Leases) at [50.0%] Match fund w/bonds payable liability.

5-Bonded debt to Japanese government at market rate for equivalent secured debt and repaid as loans payoff, est. at 0.25% premium over Treasuries or risk free rate (r_f) but not less than zero.

6-Some "Other Liabilities" may be considered demand liabilities, in which case they would require 100% reserves also and transfer to the new Depository Institution.

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December 10, 2012

SOURCE:

1-Japanese Bankers Association FY2011 Financial Statements of All Banks, Each Catagory of Bank, Balance sheets All Banks (March 31, 2012) - [Fiscal Year 2011] at
http://www.zenginkyo.or.jp/en/stats/year2_01/details/cont_2012_09.html

Commercial Bank Debt to Japanese Government from conversion to 100% Reserve Demand Deposits[3]	
(¥ Millions) For Week Ending	3/31/2012
Commercial Bank Deposits (Assumed all Demand)	¥664,991,225
Less: Cash and due from banks	-¥39,974,797
Less: Japanese Government Securities Holdings Retired	-¥166,881,245
Bonded Debt to Japanese Government from Funding 100% Demand Deposit Conversion	¥458,135,183
Source: Japanese Bankers Assn FY2011 Fin Stmts All Banks, Each Catagory Bank, Bal sheet All Banks (3/31/2012)	

Economic Recovery Plan for Japan
Sample Japanese Bank Conversion Estimate
Mitsubishi UFJ Financial Group, Inc. and Subsidiaries[1]
March 31, 2012

(¥ Millions)

ASSETS	I. Conversion to 100% Reserve Demand Deposits — March 31, 2012 Existing (Before) (¥ Millions)	Funds Transfers →	Converted Form (After) DEMAND SECTION	→	II. Split into Deposit Only and Commercial Bank — Depositor Owned Depository (¥ Millions) DEMAND SECTION	Commercial Intermediary (¥ Millions)	Reconciliation Total (¥ Millions)
CASH							
Cash and cash equivalents	¥3,230,409	¥130,365,589	¥133,595,998	→	¥133,595,998	¥0	¥133,595,998
Interest earning deposits at other banks	¥5,897,732	¥0	¥5,897,732	% Deposits	¥5,897,732	¥0	¥5,897,732
Total Cash	¥9,128,141	¥130,365,589	¥139,493,730	100.0%	¥139,493,730	¥0	¥139,493,730
JAPANESE GOVERNMENT SECURITIES		→	NON-DEMAND SECTION			NON-DEMAND SECTION	
Gov't & agency debt securities, available for sale[2]	¥48,736,276	-¥48,736,276	¥0	→		¥0	¥0
Gov't & agency debt securities, held for maturity[2]	¥590,147	-¥590,147	¥0	→		¥0	¥0
Total Japanese Gov't Securities	¥49,326,423	-¥49,326,423	¥0	→	¥0	¥0	¥0
INVESTMENTS		→					
Call loans and funds sold	¥451,433	¥0	¥451,433	→		¥451,433	¥451,433
Receivables under resale agreements	¥4,481,863	¥0	¥4,481,863	→		¥4,481,863	¥4,481,863
Receivables under securities borrowing transactions	¥3,282,656	¥0	¥3,282,656	→		¥3,282,656	¥3,282,656
Trading assets (may contain nat'l gov't securities)	¥34,953,245	¥0	¥34,953,245	→		¥34,953,245	¥34,953,245
Investment securities, net nat'l gov't available for sale	¥9,004,125	¥0	¥9,004,125	→		¥9,004,125	¥9,004,125
Investment securities, net nat'l gov't held for maturity	¥1,795,221	¥0	¥1,795,221	→		¥1,795,221	¥1,795,221
Other investment securities	¥909,765	¥0	¥909,765	→		¥909,765	¥909,765
Total Investments	¥54,878,308	¥0	¥54,878,308	→	¥0	¥54,878,308	¥54,878,308
LOANS		→					
Loans, net of unearned income, premiums & fees	¥92,298,243	¥0	¥92,298,243	→		¥92,298,243	¥92,298,243
LESS: Allowance for credit losses	-¥1,285,507	¥0	-¥1,285,507	→		-¥1,285,507	-¥1,285,507
Total Loans	¥91,012,736	¥0	¥91,012,736	→	¥0	¥91,012,736	¥91,012,736
OTHER ASSETS		→					
Premises and equipment[7]	¥987,474	¥0	¥987,474	Start-up(Est.)[7]	¥493,737	¥493,737	¥987,474
Accrued interest	¥250,351	¥0	¥250,351	→		¥250,351	¥250,351
Customers' acceptance liability	¥88,082	¥0	¥88,082	→		¥88,082	¥88,082
Intangible fixed assets	¥896,483	¥0	¥896,483	→		¥896,483	¥896,483
Goodwill	¥354,283	¥0	¥354,283	→		¥354,283	¥354,283
Deferred tax assets	¥950,395	¥0	¥950,395	→		¥950,395	¥950,395
Other assets	¥7,329,838	¥0	¥7,329,838	→		¥7,329,838	¥7,329,838
Total Other Assets	¥10,856,906	¥0	¥10,856,906	→	¥493,737	¥10,363,169	¥10,856,906
Total Assets	**¥215,202,514**	**¥81,039,166**	**¥296,241,680**	**Total Assets**	**¥139,987,467**	**¥156,254,213**	**¥296,241,680**
LIABILITIES & EQUITY							
DEPOSITS (ALL TYPES, DEMAND & TIME)		→	DEMAND SECTION	→	DEMAND SECTION		
Domestic Non-interest bearing deposits[3,4]	¥14,980,210	¥0	¥14,980,210	→	¥14,980,210		¥14,980,210
Domestic Interest bearing deposits[3,4]	¥99,610,994	¥0	¥99,610,994	→	¥99,610,994		¥99,610,994
Overseas Non-interest bearing deposits[3,4]	¥2,708,186	¥0	¥2,708,186	→	¥2,708,186		¥2,708,186
Overseas Interest bearing deposits[3,4]	¥22,194,340	¥0	¥22,194,340	→	¥22,194,340		¥22,194,340
Total Deposits	¥139,493,730	¥0	¥139,493,730	→	¥139,493,730	¥0	¥139,493,730
BORROWINGS		→	NON-DEMAND SECTION			NON-DEMAND SECTION	
Call money and funds purchased	¥2,796,221	¥0	¥2,796,221	→		¥2,796,221	¥2,796,221
Payables under repurchase agreements	¥13,572,712	¥0	¥13,572,712	→		¥13,572,712	¥13,572,712
Payables under securities lending transactions	¥4,978,917	¥0	¥4,978,917	→		¥4,978,917	¥4,978,917
Other short term borrowings	¥10,881,525	¥0	¥10,881,525	→		¥10,881,525	¥10,881,525
Long term debt[7]	¥12,593,062	¥0	¥12,593,062	For Start-up[7]	¥493,737	¥12,099,325	¥12,593,062
Total Borrowings	¥44,822,437	¥0	¥44,822,437	→	¥493,737	¥44,328,700	¥44,822,437
OTHER LIABILITIES		→					
Bonded Debt to Japanese Government[5]	¥0	¥81,039,166	¥81,039,166	→		¥81,039,166	¥81,039,166
Due to trust account	¥627,331	¥0	¥627,331	→		¥627,331	¥627,331
Obligations to return securities received as collateral	¥3,639,838	¥0	¥3,639,838	→		¥3,639,838	¥3,639,838
Trading account liabilities	¥11,967,182	¥0	¥11,967,182	→		¥11,967,182	¥11,967,182
Acceptances & guarantees	¥88,082	¥0	¥88,082	→		¥88,082	¥88,082
Accrued interest	¥152,836	¥0	¥152,836	→		¥152,836	¥152,836
Other liabilities[6]	¥5,552,631	¥0	¥5,552,631	→		¥5,552,631	¥5,552,631
Total Other Liabilities	¥22,027,900	¥81,039,166	¥103,067,066	→	¥0	¥103,067,066	¥103,067,066
Total Liabilities	**¥206,344,067**	**¥81,039,166**	**¥287,383,233**	**Total Liabilities**	**¥139,987,467**	**¥147,395,766**	**¥287,383,233**
EQUITY		→					
Shareholder equity	¥8,858,447	¥0	¥8,858,447	→	¥0	¥8,858,447	¥8,858,447
Total Equity	**¥8,858,447**	**¥0**	**¥8,858,447**	**Total Equity**	**¥0**	**¥8,858,447**	**¥8,858,447**
Total Liabilities & Equity	**¥215,202,514**	**¥81,039,166**	**¥296,241,680**	→	**¥139,987,467**	**¥156,254,213**	**¥296,241,680**
Equity to Assets Ratio	4.12%	→	2.99%	Equity to Assets Ratio	0.00%	5.67%	2.99%

NOTES

1-Mitsubishi UFJ Financial Group, Inc. considered representative bank. Conversion into a depositor owned depository and intermediation bank is a general estimation.

2-Japanese government securities would be retired as a book entry and netted with borrowing from government required to fully reserve and fund cash demand deposit accounts.

3-All types deposits treated as demand deposits and reserved 100%.

4-Savings accounts at Mitsubishi UFJ Financial Group converted to time deposits such as CD's or transferred to new Depository within a reasonable transition period, say up to three months.

5-Bonded debt to Japanese government at market rate for equivalent secured debt and repaid as loans payoff, est. at 0.25% premium over Treasuries or risk free rate (r_f) but not less than zero.

6-Some "Other Liabilities" may be considered demand liabilities, in which case they would require 100% reserves also and transfer to the new Depository Institution.

7-Start-up for depository locations & FF&E estimated % of Premises & equipment at   **50.0%**   Match fund w/Borrowings Long term debt liability.

SOURCE:

1-Mitsubishi UFJ Financial Group Annual Report Fiscal Year Ended Mar. 2012, Annual Report (USGAAP) PDF (1.61MB) pp. F-4 to F-7 (pp. 225-228 of PDF) at
http://www.mufg.jp/english/ir/annualreport/
http://www.mufg.jp/english/ir/annualreport/2012mufg-ar/pdffile/ar2012.pdf

Economic Recovery Plan for Japan

Bank of Japan (BOJ) Conversion Estimate[1]

March 31, 2012

(¥ Millions)

ASSETS	I. Conversion to 100% Reserve Demand Deposits			→	II. Split into Deposit Only and Commerce Ministry		
	March 31, 2012			→	March 31, 2012	[Ministry of Economy, Trade and Industry]	
	Existing (Before)	**Funds Transfers** →	**Converted Form (After)**	→	**Ministry Finance Depository**	**Commerce/ Sunset**[7]	**Reconciliation Total**
	(¥ Millions)	→	DEMAND SECTION		DEMAND SECTION		
CASH EQUIVALENTS							
Gold	¥441,253	¥0	¥441,253	→	¥441,253		
Cash	¥358,139	¥36,929,377	¥37,287,517	% DD Deposits	¥1,391,157	¥35,896,360	¥37,287,517
Total Cash	¥799,393	¥36,929,377	¥37,728,770	100.00%	¥1,832,410	¥35,896,360	¥37,728,770
JAPANESE GOVERNMENT SECURITIES		→					
Japanese government securities[2]	¥87,247,193	-¥87,247,193	¥0	→		¥0	¥0
Total Japanese Gov't Securities	¥87,247,193	-¥87,247,193	¥0	→	¥0	¥0	¥0
INVESTMENTS		→					
Commercial paper[3]	¥1,594,876	¥0	¥1,594,876	→		¥1,594,876	¥1,594,876
Corporate bonds[3]	¥1,990,644	¥0	¥1,990,644	→		¥1,990,644	¥1,990,644
Pecuniary trusts (stocks held as trust property)[3]	¥1,428,289	¥0	¥1,428,289	→		¥1,428,289	¥1,428,289
Pecuniary trusts (indexed ETFs held as trust proper	¥847,855	¥0	¥847,855	→		¥847,855	¥847,855
Pecuniary trusts (Japan REITs held as trust propert	¥73,635	¥0	¥73,635	→		¥73,635	¥73,635
Foreign currency assets[3]	¥5,872,387	¥0	¥5,872,387	→		¥5,872,387	¥5,872,387
Total Investments	¥11,807,686	¥0	¥11,807,686	→	¥0	¥11,807,686	¥11,807,686
LOANS		→					
Loans[3]	**¥38,995,460**	¥0	¥38,995,460	→		¥38,995,460	¥38,995,460
Total Loans	¥38,995,460	¥0	¥38,995,460	→	¥0	¥38,995,460	¥38,995,460
OTHER ASSETS		→					
Deposits with agents	¥32,401	¥0	¥32,401	→		$32,401	$32,401
Tangible fixed assets	¥207,223	¥0	¥207,223	→		$207,223	$207,223
Intangible fixed assets	¥149	¥0	¥149	→		$149	$149
Other Assets[3]	¥367,431	¥0	¥367,431	Start-up(Est.)[7]	¥0	¥367,431	¥367,431
Total Other Assets	¥607,204	¥0	¥607,204	→	¥0	¥607,204	¥607,204
Total Assets	**¥139,456,936**	**-¥50,317,816**	**¥89,139,120**	**Total Assets**	**¥1,832,410**	**$87,306,710**	**$89,139,120**
LIABILITIES & EQUITY							
DEPOSITS - JAPANESE GOVERNMENT		→	DEPOSITS SECTION		GOV'T DEPOSITS		
Treasury deposits	¥150,001	¥0	¥150,001	→	¥150,001		¥150,001
Domestic designated deposits	¥1,264,752	¥0	¥1,264,752	→	¥1,264,752		¥1,264,752
Other government deposits	¥417,657	¥0	¥417,657	→	¥417,657		¥417,657
Total Japanese Government Deposits[6]	¥1,832,410	¥0	¥1,832,410	→	¥1,832,410	¥0	¥1,832,410
DEPOSITS - NON-JAPANESE GOVERNMENT		→				NON-GOV'T DEPOSITS	
Current deposits	¥34,432,345	¥0	¥34,432,345	→		¥34,432,345	¥34,432,345
Other deposits	¥1,464,015	¥0	¥1,464,015	→		¥1,464,015	¥1,464,015
Total Non-Japanese Government Deposits[6]	¥35,896,360	¥0	¥35,896,360	→	¥0	¥35,896,360	¥35,896,360
Total Deposits	¥37,728,770	¥0	¥37,728,770	→	¥1,832,410	¥35,896,360	¥37,728,770
NON-DEPOSIT LIABILITIES[6]							
Banknotes[2]	¥80,842,816	-¥80,842,816	¥0	→		¥0	¥0
Bonded Debt to Japanese Government[5]	¥0	**¥30,525,000**	**¥30,525,000**	→		**¥30,525,000**	**¥30,525,000**
Payables under repurchase agreements	¥14,397,137	¥0	¥14,397,137	→		¥14,397,137	¥14,397,137
Provision for retirement benefits	¥199,163	¥0	¥199,163	→		¥199,163	¥199,163
Provision for possible losses on bond transactions	¥2,243,349	¥0	¥2,243,349	→		¥2,243,349	¥2,243,349
Provision for possible losses on foreign exchange tr	¥794,500	¥0	¥794,500	→		¥794,500	¥794,500
Other liabilities[4]	¥35,850	¥0	¥35,850	For Start-up[7]	¥0	¥35,850	¥35,850
Total Non-Deposit Liabilities	¥98,512,815	-¥50,317,816	¥48,194,999	→	¥0	¥48,194,999	¥48,194,999
Total Liabilities	**¥136,241,585**	**-¥50,317,816**	**¥85,923,769**	**Total Liabilities**	**¥1,832,410**	**$84,091,359**	**$85,923,769**
EQUITY/CAPITAL		→					
Capital and Net Income	¥529,167	¥0	¥529,167	→		¥529,167	¥529,167
Reserves (Legal & Special)	¥2,686,184	¥0	¥2,686,184	→	¥0	¥2,686,184	¥2,686,184
Total Capital/Equity	¥3,215,351	¥0	¥3,215,351	**Total Capital**	¥0	¥3,215,351	¥3,215,351
Total Liabilities & Equity/Capital	**¥139,456,936**	**-¥50,317,816**	**¥89,139,120**	→	**¥1,832,410**	**$87,306,710**	**$89,139,120**
Equity to Assets Ratio	2.31%	→	3.61%			3.68%	3.61%

NOTES

1-General estimation of Bank of Japan conversion into a Ministry of Finance Depository and remaining sunsetting bank operated by appropriate governmental Ministry.

2-Japanese Government Securities Holdings would be credited and retired against Bank of Japan Banknotes which would be exchanged for new non-debt Japanese Bills.

3-Investment sales and loan payoffs and would be credited to Japanese government and retired.

4-Some "Other Liabilities" may be considered demand liabilities, in which case they would require 100% reserves also and transfer to the new Finance Ministry Deposit Institution.

5-Bonded debt to Japanese government at market rate for equivalent secured debt and repaid as loans payoff, est. at risk free rate (r_f), but not less than zero, plus a risk premium of 0.25%.

6-All types deposits reserved 100%.

7-Remaining operations of BOJ would be assigned to assumed Ministry of Economy, Trade and Industry and sunset. Loan payoffs would be credited to government debt and retired or dividended to the people of Japan's new depository accounts.

SOURCE:

1-Bank of Japan 2012 Annual Review (Fiscal 2011) Balance Sheets pp. 67-68 at
http://www.boj.or.jp/en/about/activities/act/index.htm/

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December 10, 2012

Bank of Japan Consolidated Statement Change from conversion to 100% Demand Deposits[1]	
(¥ Millions) For Period Ending	3/31/2012
Bank of Japan Banknotes (currency) Retired & Replaced with Japanese Bills	¥80,842,816
Plus: Cash Equivalents Needed to cover Japanese Gov't Demand Deposits	¥36,929,377
Less: Japanese Government Securities Holdings Retired	-¥87,247,193
Bonded Debt to Japanese Government from Funding 100% Demand Deposit Conversion	¥30,525,000
Source: Bank of Japan 2012 Annual Review (Fiscal 2011) Balance Sheets pp. 67-68.	

Economic Recovery Plan for Japan

Japanese Government Consolidated Balance Sheet

Conversion Estimate[a,1]
March 31, 2011
Fiscal Year 2010[b]

ASSETS	I. Conversion Retiring Fed Debt Holdings at Book		
	March 31, 2011		
	Existing (Before)	Funds Transfers →	Converted Form (After)
CURRENT ASSETS	(¥ Millions)	→	(¥ Millions)
Cash and deposit	¥15,747,299	¥0	¥15,747,299
Securities	¥89,266,186	¥0	¥89,266,186
Inventories	¥2,553,650	¥0	¥2,553,650
Accounts receivable	¥7,705,642	¥0	¥7,705,642
Accrued income	¥944,251	¥0	¥944,251
Money in trust	¥115,606,939	¥0	¥115,606,939
Other credits	¥2,570,436	¥0	¥2,570,436
Total Current Assets	¥234,394,403	¥0	¥234,394,403
INVESTMENTS		→	
Bonded Debt to Japanese Gov't from Conversion[c]	¥0	¥488,660,183	**¥488,660,183**
Loans	¥147,996,553	¥0	¥147,996,553
Investments	¥57,443,767	¥0	¥57,443,767
Allowance for doubtful	-¥2,666,860	¥0	-¥2,666,860
Total Investments	¥202,773,460	¥488,660,183	¥691,433,643
OTHER ASSETS		→	
Accrued insurance premiums	¥5,020,661	¥0	¥5,020,661
Tangible fixed assets	¥182,696,464	¥0	¥182,696,464
Intangible fixed assets	¥248,340	¥0	¥248,340
Total Other Assets	¥187,965,465	¥0	¥187,965,465
Total Assets	**¥625,133,328**	**¥488,660,183**	**¥1,113,793,511**
LIABILITIES & EQUITY			
CURRENT LIABILITIES		→	
Accounts payable	¥9,437,991	¥0	¥9,437,991
Reserves claims	¥461,389	¥0	¥461,389
Accrued liabilities	¥1,396,177	¥0	¥1,396,177
Money in custody	¥569,339	¥0	¥569,339
Advance received	¥131,869	¥0	¥131,869
Differed revenues	¥4,336	¥0	¥4,336
Money on deposit	¥6,096,790	¥0	¥6,096,790
Total Current Liabilities	¥18,097,891	¥0	¥18,097,891
OTHER LIABILITIES		→	
Prepaid insurance premiums	¥82,516	¥0	¥82,516
Allowance for bonus payment	¥283,778	¥0	¥283,778
Liability Reserves	¥9,729,855	¥0	¥9,729,855
Deposit reserved for public pension	¥123,868,838	¥0	¥123,868,838
Allowance for retirement benefits	¥11,286,563	¥0	¥11,286,563
Other liabilities	¥7,094,409	¥0	¥7,094,409
Total Operational Liabilities	¥152,345,959	¥0	¥152,345,959
GOVERNMENT DEBT LIABILITIES		→	
Federal debt held by the Bank of Japan retired[d,2]	¥87,247,193	-¥87,247,193	¥0
Federal debt held by commercial banks retired[d,3]	¥166,881,245	-¥166,881,245	¥0
Federal debt remaining (Bills, bonds & borrowings)	¥618,331,210	¥0	¥618,331,210
Total Government Debt Liabilities	¥872,459,648	-¥254,128,438	¥618,331,210
Total liabilities	**¥1,042,903,498**	**-¥254,128,438**	**¥788,775,060**
EQUITY/CAPITAL (Net Position)			
Net Financial Assets (Total Assets - Total Liabilities)	-¥417,770,170	¥742,788,621	¥325,018,451
Total net position (Capital Shortage/Equity Gap)	**-¥417,770,170**	**¥742,788,621**	**¥325,018,451**
Total Liabilities & Equity/Capital	**¥625,133,328**	**¥488,660,183**	**¥1,113,793,511**
Equity to Assets Ratio	-66.83%	→	29.18%

Totals may not equal sum of components due to rounding.

Japanese Government Debt (Before Conversion)			
(¥ Millions)	As of	3/31/2011	% Total
Financing bills		¥90,669,554	10.4%
Government bonds		¥758,697,718	87.0%
Borrowings		¥23,092,376	2.6%
Total Japanese Government Debt		¥872,459,648	100.0%

Japanese Government Debt (After Conversion)			
(¥ Millions)	As of	3/31/2011	% Total
Total Japanese Fed Government Debt		¥872,459,648	100.0%
- Fed debt held by the BOJ retired[c,2]		-¥87,247,193	-10.0%
- Fed debt held by com. banks retired[c,3]		-¥166,881,245	-19.1%
- Debt to Gov't from Conversion[b]		-¥488,660,183	-56.0%
Japanese Gov't Debt after conversion		¥129,671,027	14.9%

NOTES

a-General estimation of financial impact of converting to 100% reserve system retiring Japanese federal government debt holdings. (Not all dates match so general purposes only)

b-Japanese government's financial year runs from April 1st to March 31st. Fiscal Year (FY) 2010 ended March 31, 2011.

c-Initial seigniorage, first use new money creation, allocated to government to loan for 100% funding of commercial bank demand deposits. Bank debt to Japanese Government est. at 0.25% premium over risk free rate (r_f) [net GDP growth rate] secured by Loan Assets and/or other assets and would be repaid as loans payoff. Subsequent seigniorage to be direct issued to the peop who created increased productivity to justify it, on a pro rata basis as a "Labor Dividend" or as interest to demand deposit accounts held at new depositor owned 100% depository only institutions.

d-Federal debt holdings by BOJ and Commercial Banks would be retired as a book entry and netted with bank borrowing required to fully fund Japanese Bill cash demand deposit accounts.

SOURCE:

1-Ministry of Finance Japan 2012 Debt Management Report published October 5, 2012 Appendices Supplement (15) Balance Sheet of Japanese Government (General Account and Special Accounts) (as of the end of FY2010 3/31/2011) p.166 at http://www.mof.go.jp/english/jgbs/publication/debt_management_report/2012/index.html
http://www.mof.go.jp/english/jgbs/publication/debt_management_report/index.htm   http://www.mof.go.jp/english/jgbs/publication/debt_management_report/2012/saimu.pdf

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b-Commercial bank & BOJ monetary debt to Japanese government from conversion to 100% reserve deposit accounts			
(¥ Millions)	For Week Ending	3/31/2012	% Total
Bank of Japan Bonded Debt to Japanese Government from Monetary Conversion - Attachment 9(c)		¥30,525,000	6.2%
Commercial Bank Deposits (Assumed all Demand)		¥664,991,225	136.1%
Less: Cash and due from commercial banks		-¥39,974,797	-8.2%
Less: Commercial Bank Japanese Government Securities Holdings Retired		-¥166,881,245	-34.2%
Bonded Debt to Japanese Government from Funding 100% Demand Deposit Conversion		¥488,660,183	100.0%
Source: Japanese Bankers Assn FY2011 Financial Statements All Banks, Each Catagory Bank, Balance sheet All Banks-A9(a)			

Attachment 10
Economic Recovery Plan for Japan
Japanese Central Government Debt[1]
As of March 31, 2012
(¥ Million Yen)

1. Outstanding Government Bonds and Borrowings	FY 2011		FY2010
(¥ Million Yen)	3/31/2012 Amount	Change (+/-) from Previous Fiscal Year	3/31/2011 Amount
	(¥ Millions)	(¥ Millions)	(¥ Millions)
General Bonds			
Long-term (10 years or more)	¥432,957,700	¥28,589,800	¥404,367,900
Medium-term (2 to 5 years)	¥195,097,600	¥2,466,200	¥192,631,400
Short-term (one year or less)	¥41,812,100	¥2,499,800	¥39,312,300
Total General Bonds	¥669,867,400	¥33,555,800	¥636,311,600
(of which Reconstruction Bonds [from March 2011 earthquake and tsunami])	¥10,652,900	¥10,652,900	¥0
Fiscal Investment and Loan Program Bonds			
Long-term (10 years or more)	¥91,906,800	-¥8,882,000	¥100,788,800
Medium-term (2 to 5 years)	¥19,005,500	¥1,602,500	¥17,403,000
Total Fiscal Investment & Loan Program Bonds	¥110,912,300	-¥7,279,500	¥118,191,800
Other Bonds			
Subsidy Bonds	¥282,600	-¥84,700	¥367,300
Subscription/Contribution Bonds	¥1,874,200	¥251,200	¥1,623,000
Government Bonds issued to Development Bank of Japan	¥1,343,800	-¥6,200	¥1,350,000
Government Bonds issued to Nuclear Damage Liability Facilitation Fund	¥4,336,400	¥4,336,400	¥0
Government Bonds converted from The Japan Expressway Holding and Debt Repayment Agency Bonds	¥725,400	¥0	¥725,400
Total Government Bonds	¥789,342,100	¥30,773,000	¥758,569,100
Borrowings			
Long-term (over one year)	¥18,226,700	-¥1,464,800	¥19,691,500
Short-term (one year or less)	¥35,514,200	¥200,000	¥35,314,200
Total Borrowings	¥53,740,900	-¥1,264,800	¥55,005,700
Financing Bills	¥116,867,300	¥6,082,600	¥110,784,700
Total Bonds and Borrowings	**¥959,950,300**	**¥35,590,800**	**¥924,359,500**

2. Outstanding Government Guaranteed Debts	FY2011		FY2010
(¥ Million Yen)	3/31/2012 Amount	Change (+/-) from Previous Fiscal Year	3/31/2011 Amount
Government Guaranteed Debts	(¥ Millions)	(¥ Millions)	(¥ Millions)
Total Government Guaranteed Debts	¥44,039,700	-¥704,800	¥44,744,500

NOTES

1-Figures may not sum up to total because of rounding.

2-Above "Outstanding Government Bonds and Borrowings" contains government bonds and borrowings held by government.

3-Figures are total of the general account and all special accounts. The coverage is different from the central government defined in SNA.

4-The data as of June 30, 2012 will be released on August 10, 2012.

SOURCE

1-Ministry of Finance Japan, Central Government Debt (As of March 31, 2012) Press Release May 10, 2012 at
http://www.mof.go.jp/english/jgbs/reference/gbb/201203.html
3-1-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8940, JAPAN Tel: +81-(0)3-3581-4111 (9:00 AM - 6:30 PM JST)
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Attachment 11
Economic Recovery Plan for Japan
Bank of Japan Monetary Intermediation Cost Impact on Economy and Jobs

Assumptions

a-BOJ Reserve Requirement (From Attachment 1)	1.30%
b-Bank Note Rate Est.(Risk Free Rate(r_f) [Not less than zero] + Risk Premium est. at 25bp)	0.25%
c-Economic Growth Rate (Est.) for Cap Rate	4.00%
d-Capital Value per Job Est. (Adjustable)	¥80,000,000
Exchange Rate $1 U.S. Dollar to Yen[7] 3/31/2012	¥82.87
New York Times 7/6/2009 Estimated Job Creation Cost ($)	$31,169
8-New York Times 7/6/2009 article $31,169 job creation cost converted to Yen (¥)	¥2,582,975

Step 1. Estimate Monetary Intermediation Cost

I. Historical Average (1984-2011, 28-years)

	(¥ Billions)
1. BOJ Operations (Fiscal 2011 Actual Net)[1]	¥286.8
2. New Money (M1) Issued times (1 - reserve requirement)[1,a]	¥15,989.5
Total Annual Intermediation	¥16,276.3
Intermediation Capitalized[2,c]	¥406,907.5

II. Fiscal 2011 Actual

	(¥ Billions)
1. BOJ Operations (Fiscal 2011 Actual Net)[1]	¥286.8
2. New Money (M1) Issued times (1 - reserve requirement)[1,a]	¥19,688.3
Total Annual Intermediation	¥19,975.2
Intermediation Capitalized[2,c]	¥499,379.2

III. Monetary Debt Impact[1,2,3 Notes]

	(¥ Billions)
Bank note to Gov't to cover fractional reserve deposit cash shortage[3,b]	¥488,660.2
Commercial Bank Federal Gov.t Securities Holdings Retired[3]	¥166,881.2
Bank of Japan Gov't Securities Holdings Retired[3]	¥87,247.2
Intermediation Capitalized	¥742,788.6

Step 2. Estimate Monetary Intermediation Cost Impact on Japanese Economy and Jobs

There is no economic reward for monetary leverage from M&M Theorem
(Corollary, risk free rate (r_f) should be GDP growth rate, not gov't debt rate.)

Japanese Economic Indicators (as of 3/31/2012)

GDP Fiscal 2011 (¥ Billions)[4]	¥469,545.0
Total Central Government Debt (¥ Billions)[5]	¥959,950.3
Unemployment, 2012-3 [une_nb_m][6]	3,070,000

Risk Free Rate (r_f) for bank note, not less than 0%

[GDP] - [Monetary Intermediation] (Net % GDP)

1956 to 2011 (56 Years)	4.04%
1984 to 2011 (28 Years)	-1.72%
2002 to 2011 (10 Years)	-5.98%
Last Year 2011	-6.25%
Sources: Attachments 5 & 7	

Bank of Japan Monetary Intermediation Cost Economic Impact Estimates

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Intermediation Cost		Jobs Impact Estimates			Unemployment Reduction %	GDP % Improvement	Federal Debt Reduction %
	Annual	Capitalized	Annual	Capitalized	Average			
Estimation Basis	(¥ Billions)	(¥ Billions)	=(A)/NYT Est[8]	=(B)/¥80,000,000 (d)	=[(C)+(D)]/2	=(E)/[Unemployment]	=(A) / [GDP]	=(B)/[Fed Debt]
I. Historical Average	¥16,276.3	¥406,907.5	6,301,377	5,086,343	5,693,860	185.5%	3.5%	
II. Fiscal 2011 Actual	¥19,975.2	¥499,379.2	7,733,396	6,242,240	6,987,818	227.6%	4.3%	
III. Monetary Debt Est.	¥29,711.5	¥742,788.6	11,502,839	9,284,858	10,393,848	338.6%	6.3%	77.4%
Averages	**¥21,987.7**	**¥549,691.8**	**8,512,537**	**6,871,147**	**7,691,842**	**250.5%**	**4.7%**	**77.4%**

The BOJ fractional reserve monetary system has an average 98.7% (1 - RR) intermediation cost (wealth transfer effect) of new money creation. This is a loss of capital from the other sectors of the economy to the banking sector. Assuming ¥80,000,000 Yen of capital value per job creation, the average ¥549.7 trillion capitalized cost represents an estimated 6,871,000 private sector jobs. Per NY Times estimate the ¥22.0 tillion annual cost would be approximately 8,512,000 jobs. These estimates indicate the approximate cost of monetary intermediation is on the order of 7.7 million jobs.

Notes

1-Japanese government debt holdings by commercial banks expected to be credited and retired for use in funding full reserve deposits.

2-Bank debt to Japanese government estimated to be first lien at the same interest rate for all banks based on the risk free rate (r_f) for Japan, but not less than zero + a risk premium estimated at 25 basis points (0.25%).

3-Ignores potential interest rate manipulation intermediation costs.

Sources

1-BOJ Operations and M1 increases from Attachment 5 BOJ Annual Monetary Intermediation Cost 1984 to 2011 using M1 Money Stock.

2-Intermediation Capitalized = [Annual Intermediation] ÷ [Economic Growth est. for Cap Rate (c)]

3-Bank Note amounts from Attachment 9(a) Japanese Commercial Banks Consolidated Conversion Estimate and Attachment 9(c) Bank of Japan (BOJ) Conversion Estimate.

4-GDP from "What Was the Japan GDP or CPI Then?" MeasuringWorth at
   http://www.measuringworth.com/datasets/japandata/

5-Total Central Government debt from Attachment 10 Japanese Central Government Debt.

6-Unemployment data from European Commission eurostat, Harmonised unemployment by gender - total (teilm010) at
   http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_nb_m&lang=en

7-Historical exchange rate for U.S. Dollar ($) to Yen (¥) from x-rates.com at   http://www.x-rates.com/historical/   Lookup Date   10/3/2012

8-New York Times 7-6-2009 article "The Costs of Entrepreneurial Job Creation" estimated at $31,169 per job at
http://boss.blogs.nytimes.com/2009/07/06/how-much-does-it-cost-to-create-a-job-by-encouraging-entrepreneurship/

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Attachment 12

Economic Recovery Plan for Japan

Direct Issuance and First Use (Seigniorage) Money Supply Intermediation to the Japanese People (Estimated)

M1[1] Money Stock Basis Assumed

Initial Conditions

Initial conditions would be to take GDP of economy in base year and divide it by itself and call the result 100 and the same for the money stock, take the chosen money stock indicator and divide it by itself and call it 100. Then, one possible way to allocate the productivity increase of the economy back to the economy itself in the most direct, efficient and least costly way would be for any increases in the money stock to be directly issued by the government as interest/Labor Dividend pro rata to the accounts held at the new 100% cash depositories. If the economy grows at a 2% rate then 2% seigniorage interest would be credited to the demand deposit accounts. In recessionary cycles, if any, no interest/Labor Dividend would be paid. In that sense these 100% reserve checking accounts would appear to earn interest/Labor Dividends and be the same as today's fractional reserve checking accounts that are paying effectively no interest in recessionary periods and some interest in expansionary periods. There would be no need for deposit insurance because the depository would have 100% cash and demand deposits - it would not be possible for such a depository to not have 100% funds on hand to cover any withdrawal situation including up to 100%. Commercial Banks would no longer take demand deposits but could take CDs and make time matched funding loans and lend their own capital and continue to offer other financial services without government insurance.

Formula — If economy declines, no Labor Dividend until fully recovered to avoid inflation.

$$[\% \text{ Change MS}_N] = \frac{[MS_N - MS_{N-1}]}{[MS_{N-1}]} = \frac{\text{Money Stock}_0 \times GDP_N}{\text{Money Stock}_{N-1} \times GDP_0} - 1$$

[Labor Dividend (LD)]

[Seigniorage]

Provided [GDP$_N$] greater than any previous [GDP$_X$] in the series 0 to N-1, if not then [% Change MS$_N$] = 0%

Where
- MS = Money Stock/Supply
- GDP = Gross Domestic Product, measure of economic performance
- N = Year, (period between measurements used)
- LD = Labor Dividend [Seigniorage/interest]

Economic (GDP) Performance

Year/Period (N)	0	1	2	3	4	5	6	7	8	9	10
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GDP[2] (End of Year ¥ Billions)	¥497,720.0	¥491,312.0	¥490,294.0	¥498,328.0	¥501,734.0	¥507,365.0	¥515,520.0	¥504,378.0	¥470,937.0	¥479,172.0	¥469,545.0
Economy GDP (Begin GDP$_{N-1}$)		100.000	98.713	98.508	100.122	100.806	101.938	103.576	101.338	94.619	96.273
Economy GDP (End GDP$_N$/GDP$_0$)	100.000	98.713	98.508	100.122	100.806	101.938	103.576	101.338	94.619	96.273	94.339
% GDP Change (GDP$_N$/GDP$_{N-1}$ -1)		-1.287%	-0.207%	1.639%	0.683%	1.122%	1.607%	-2.161%	-6.630%	1.749%	-2.009%
% Change Cumulative (GDP$_N$/GDP$_0$ -1)	0.000%	-1.287%	-1.492%	0.122%	0.806%	1.938%	3.576%	1.338%	-5.381%	-3.727%	-5.661%

Money Stock Growth

Year/Period (N)	0	1	2	3	4	5	6	7	8	9	10
Money Stock (Begin 1/1)		100.000	100.000	100.000	100.122	100.806	101.938	103.576	103.576	103.576	103.576
% Change (Period N from GDP% N-1)		-1.287%	-0.207%	1.639%	0.683%	1.122%	1.607%	-2.161%	-6.630%	1.749%	-2.009%
% Change Cumulative (∑ MS from 0)		-1.287%	-1.492%	0.122%	0.806%	1.938%	3.576%	1.338%	-5.381%	-3.727%	-5.661%
Labor Dividend (Year N)[3]		0.000%	0.000%	0.122%	0.683%	1.122%	1.607%	0.000%	0.000%	0.000%	0.000%
Money Stock (End)	100.000	100.000	100.000	100.122	100.806	101.938	103.576	103.576	103.576	103.576	103.576
Labor Div Cumulative (MS$_N$/MS$_0$ - 1)	0.000%	0.000%	0.000%	0.122%	0.806%	1.938%	3.576%	3.576%	3.576%	3.576%	3.576%
Money Stock (LD Model) (Begin)		$274,829.7	$274,829.7	$274,829.7	$275,165.4	$277,046.1	$280,155.5	$284,658.5	$284,658.5	$284,658.5	$284,658.5
Labor Dividend (Year/Period N)		$0.0	$0.0	$335.7	$1,880.7	$3,109.3	$4,503.0	$0.0	$0.0	$0.0	$0.0
Money Stock (LD Model) (End)	$274,829.7	$274,829.7	$274,829.7	$275,165.4	$277,046.1	$280,155.5	$284,658.5	$284,658.5	$284,658.5	$284,658.5	$284,658.5
Money Stock (M1 Actual)	¥274,829.7	¥342,348.0	¥444,850.6	¥464,476.9	¥487,020.7	¥480,108.9	¥492,570.2	¥487,895.8	¥492,680.4	¥508,212.8	¥528,100.0
Variance (with LD Model) Over / (Under)		24.6%	61.9%	68.8%	75.8%	71.4%	73.0%	71.4%	73.1%	78.5%	85.5%
Money Stock (LD Model)/GDP Ratio	100.0%	101.3%	101.5%	100.0%	100.0%	100.0%	100.0%	102.2%	109.5%	107.6%	109.8%
Variance	0.0%	1.3%	1.5%	0.0%	0.0%	0.0%	0.0%	2.2%	9.5%	7.6%	9.8%

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Notes/Sources
1-M1 Money Stock data (Not Seasonally Adjusted) from Federal Reserve Bank of St. Louis at
http://research.stlouisfed.org/fred2/series/MYAGM1JPM189N/downloaddata?cid=32281
3-GDP data from "What Was the Japan GDP or CPI Then?" MeasuringWorth at
http://www.measuringworth.com/datasets/japandata/
3-Also known as Seigniorage. It is percent (%) increase in money stock for period N, provided the economy has total net positive growth above all previously paid Labor Dividends.
Seigniorage money supply expansions would be paid like interest, direct deposited into depository account holders accounts on a pro rata basis.

Attachment 13
Economic Recovery Plan for Japan
Historical Support for 100% Full Reserve Demand Deposit Banking

All of the persons listed supported a 100% reserve banking system and although many likely had different versions of the exact structure such a system might have they were all supportive of 100% reserve (time matched lending without money creation ability) banking. One version was known as "The Chicago Plan" primarily by Henry Simons was supported by hundreds of economists in the 1930's.

 # Nobel Prize Winners

1 Milton Friedman — Nobel Prize Economics 1976, Economics Professor primarily University of Chicago.
2 James Tobin — Nobel Prize Economics 1981, Economics Professor Yale and Harvard, (March 5, 1918 – March 11, 2002)
3 Maurice Allais — Nobel Prize Economics 1988, Economics Professor, École Nationale Supérieure des Mines de, Paris (May 31, 1911 – October 9, 2010)
4 Merton H. Miller — Nobel Prize Economics 1990 for discovery of M&M Theorem, Economics Professor primarily University of Chicago in "Do the M&M propositions apply to Banks?" Journal of Banking & Finance 19, 1995.
5 Frederick Soddy — Nobel Prize Chemistry 1921 (believed to be first discover of 100% reserve principle in 1926, author 1934 *The Role of Money* pp. 67-68 quote "[Fractional Reserve] Banks have never been solvent".

 # Bankers

1 Frank A. Vanderlip — President National City Bank (1909-1919) (now Citicorp), Assistant Secretary of Treasury (1891-1901) and member of original Jekyll Island Conference for the creation of the Federal Reserve System (1864 – June 30, 1937).
2 Alexander Efron — Originated no minimum balance checking known as Checkmaster Plan while Vice President National Safety Bank & Trust, New York, (1893 – December 24, 1950).
3 Mervyn King — Current governor of the Bank of England, England's Central Bank in "Banking: From Bagehot to Basel, and Back Again" Speech at Buttonwood Gathering, New York City, Monday October 25, 2010.

 # Economists

1 Irving Fisher — Economics Professor, Yale, one of the most respected economists from the first half of the 20th century advocated for 100% reserve system from 1934 for the remainder of his life (1867-1947).
2 Herman E. Daly — Economics Professor, University of Maryland, author in 2007 of "Ecological economics and sustainable development: selected essays of Herman Daly", p.114.
3 Laurence Jacob Kotlikoff — Economics Professor, Boston University (January 30, 1951 –)
4 Jesús Huerta de Soto Ballester — Economics Professor, Rey Juan Carlos University, Madrid, Spain (December 23, 1956 –)
5 Jörg Guido Hülsmann — Economics and Law Professor, Université d'Angers, Angers, France
6 Richard A. Werner — International Banking Professor, University of Southampton, England
7 Joseph Huber — co-author with James Robertson of *Creating New Money: A Monetary Reform for the Information Age*, 2000, chair of economic and environmental sociology at Martin Luther University of Halle-Wittenberg, Germany (1948-).
8 James Robertson — co-author with Joseph Huber of *Creating New Money: A Monetary Reform for the Information Age*, 2000, British political and economic thinker/activist (born August 11, 1928).
9 Lauchlin Currie — Assistant to Former Federal Reserve Chairman Marriner Eccles during Roosevelt administration (October 8, 1902 – December 23, 1993).
10 Murray Rothbard — Notable Austrian School Economist (March 2, 1926 – January 7, 1995)
11 Ludwig von Mises — Prominent Early Austrian School Economist (September 29, 1881 – October 10, 1973)
12 Henry C. Simons — Economics and Law Professor, U. Chicago and a primary author of the "Chicago Plan" 100% banking reserves plan letter March 1933 on file in Roosevelt Library in Hyde Park, NY.
13 Garfield V. Cox — Finance Professor and Dean of the Chicago School of Business (1945-52), signed 100% banking reserves letter March 1933 on file in Roosevelt Library in Hyde Park, NY. (May 4, 1893 –)
14 Aaron Director — Economics and Law Professor, U. Chicago signed 100% banking reserves letter March 1933 on file in Roosevelt Library in Hyde Park, NY (1901 – September 11, 2004).
15 Albert Gailord Hart — Economics professor at Columbia University, supported "Chicago Plan" signing March 1933 Letter on file in Roosevelt Library in Hyde Park, NY.
16 Frank H. Knight — Economics Professor, U. Chicago (1922-52) signed 100% banking reserves letter March 1933 on file in Roosevelt Library in Hyde Park, NY (November 7, 1885 - April 15, 1972).
17 Lloyd W. Mints — Economics professor, U. Chicago signed 100% banking reserves letter March 1933 on file in Roosevelt Library in Hyde Park, NY (1888 –).
18 Henry Schultz — Economics professor, U. Chicago signed 100% banking reserves letter March 1933 on file in Roosevelt Library in Hyde Park, NY (September 4, 1893 – November 26, 1938).
19 Frank D. Graham — Economics and International Finance Professor Princeton (1890-1949). Frank D. Graham Memorial Lecture at Princeton is named in his honor.
20 Charles R. Whittlesley — Economics professor at Princeton and Wharton School, U. Penn (1900-79).
21 Richard A. Lester — Labor Economics Professor and Former Chairman Princeton Department of Economics author "Gold Money, Bank Money, and Real Money" VQR Spring 1941 (March 1, 1908 – December 31, 1997).
22 Earl J. Hamilton — Economics Professor Duke (1927-44) and U. Chicago (1947-67), also editor of the Journal of Political Economy for seven years and president of the Economic History Association 1951-52. (1899 – 1989).
23 Willford I. King — Economics Professor, NYU 1927-45 (1880–1962).
24 Charles O. Hardy — Associate Economist at Fed during Marriner Eccles Roosevelt era Chairmanship, fellow at Brookings Institution and author including "Credit Policies of the Federal Reserve System in 1932.
25 John R. Commons — Economics Professor and Labor Historian University of Wisconsin-Madison (October 13, 1862 – May 11, 1945).
26 James W. Angell — Economics Professor Columbia University (1898-1986).
27 American Economic Association — Leading economics society in the world, 1937 poll by Irving Fisher indicated 1,100 members had signed approval of 100% reserve banking with 96 indicating specific reservations.

 # Government Members

1 Robert L. Owen — U.S. Senator (D-OK) 1907-25, Chairman Senate Committee on Banking and Currency (1913-1919) and Senate sponsor of the Glass-Owen Bill (H.R. 7837) which became the Federal Reserve Act signed into law 12/23/1913, (February 2, 1856 – July 19, 1947).
2 Henry Wallace — 33rd Vice President of the United States, Secretary of Agriculture and Secretary of Commerce under Roosevelt Administration
3 Paul Howard Douglas — U.S. Senator from Illinois 1948-66 and former Univ of Chicago economics professor supported 100% reserve banking including co-authoring *A Program for Monetary Reform* in July 1939 (March 26, 1892 – September 24, 1976).
4 Bronson Cutting — U.S. Senator from New Mexico (interim 1928 and 1929-35) introduced 100% reserve banking legislation in Senate June 6, 1934 (S. 3744)(June 23, 1888 – May 6, 1935).
5 Wright Patman — U.S. Congressman (D) from 1st District Texas (1929-1976) and chair of the House Committee on Banking and Currency (1965–75) introduced legislation in House in 1934 (H.R. 9855)(August 6, 1893 – March 7, 1976).
6 Jerry Voorhis — U.S. Congressman (D) from 12th District California 1937-1947. Voorhis supported 100% reserve banking and teamed with Wright Patman to force Fed to pay most interest earned on federal securities to the U.S. Government (April 6, 1901 – September 11, 1984).
7 T. Alan Goldsborough — U.S. Congressman (D) from 1st District Maryland (1921-1939) introduced legislation to end fractional reserve banking system in 1937 (HR 31) (September 16, 1877 – June 16, 1951).
8 Ron Paul — U.S. Congressman from 14th District Texas (1997-2012) and two time Republican candidate for President.
9 Dennis J. Kucinich — U.S. Congressman from 10th District Ohio (1997-2012).
10 Douglas Carswell — MP in British Parliament

 # Notable Historic Supporters

1 Thomas Edison — Greatest Inventor of 20th Century (February 11, 1847 – October 18, 1931).
2 David Hume — One of the most important figures in the history of Western philosophy in *Of Money* 1752.
3 Robert de Fremery — Respected financial writer and author *Money and Freedom* 1955.
4 Gertrude M. Coogan — First woman to receive MBA from Northwestern, earned in 1922 with special honors and author of *Money Creators* 1935.

SOURCES:
1-Robert de Fremery from *Money and Freedom*, 1954 at
http://www.wcf.com/mandf/
2-"Irving Fisher and the 100% Reserve Proposal", William Allan, UCLA, 1993 at
http://www.fullreservebanking.com/papers.htm
3-"The 'Chicago Plan' and New Deal Banking Reform", Ronnie J. Phillips, 1992 at
http://www.levyinstitute.org/pubs/wp/76.pdf

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December 10, 2012

Attachment 14
Economic Recovery Plan for Japan
Deposit Insurance Corporation of Japan Financial Assistance (by Fiscal Year)
(as of September 30, 2012)

The Deposit Insurance Corporation of Japan (DICJ) provides financial assistance to ensure the smooth transfer of business in case a failed financial institution transfers business to or merges with the assuming financial institution. The financial assistance may take the form of a monetary grant, loan or deposit of funds, purchase of assets, guarantee or assumption of debts, subscription of preferred stock or loss sharing. From FY1992 to FY2011, financial assistance amounting to ¥25.4 trillion has been implemented in 182 cases.

(Unit: ¥ billion)	Cases of Financial Assistance	Monetary Grants To Assuming Financial Institutions	Monetary Grants To Failed Financial Institutions (Equitable Financial Assistance)	Asset Purchases	Others	Total Assistance
Fiscal Year						
1992	2	¥20.0		-	¥8.0	¥28.0
1993	2	¥45.9		-	-	¥45.9
1994	2	¥42.5		-	-	¥42.5
1995	3	¥600.8		-	-	¥600.8
1996	6	¥1,315.8		¥90.0	-	¥1,405.8
1997	7	¥152.4		¥239.1	¥4.0	¥395.5
1998	30	¥2,674.1		¥2,681.5	-	¥5,355.6
1999	20	¥4,637.4		¥1,304.4	-	¥5,941.8
2000	20	¥5,154.7		¥850.1	-	¥6,004.8
2001	37	¥1,639.4		¥406.4	-	¥2,045.8
2002	51	¥2,326.8		¥794.9	-	¥3,121.7
2003	0	-		-	-	¥0.0
2004	0	-		-	-	¥0.0
2005	0	-		-	-	¥0.0
2006	0	-		-	-	¥0.0
2007	0	-		-	-	¥0.0
2008	1	¥256.3		¥1.7	-	¥258.0
2009	0	-		-	-	¥0.0
2010	0	-		-	-	¥0.0
2011	1	¥46.1	¥76.3	¥53.0	-	¥175.4
2012	0	-	-	¥0.1	-	¥0.1
Total	182	¥18,912.2	¥76.3	¥6,421.2	¥12.0	¥25,421.7

Total Monetary Grants ¥18,988.5 Figures are rounded off.

Notes

1-Figures are based on the date when financial assistance was implemented.(Monetary grants include reductions taken place later.) Midori Bank cases (asset purchase in FY1998 and monetary grant in FY1999) are counted only in FY1998.

2-Monetary grants include that those to failed financial institutions (equitable financial assistance) in order to ensure equitable treatment among creditors, other than those to assuming financial institutions.

3-Asset purchase in FY2012 is the fourth asset purchase from Incubator Bank of Japan, which stood at ¥63 million (the figures are rounded off). The number of the cases was recorded for FY2011 when the first financial assistance was implemented. (As for Incubator Bank of Japan, from the first to the third asset purchases and asset purchases from assuming financial institutions in re-succession are combined to record as one case.)

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Source

1-Deposit Insurance Corporation of Japan, Financial Assistance (by Fiscal Year) (as of September 30, 2012) at
http://www.dic.go.jp/english/e_katsudo/e_shikinenjo/e_jisseki-nendo.html

Attachment 15
Economic Recovery Plan for Japan
Formulas

Symbol Key

GDP = Gross Domestic Product (¥), measure of economic output of economy.

MS = Money Stock (¥) at end of given period X (M1-NS used for calculations).

N = Last Observation in series 0 to N, assumed year but could be quarterly or other selected period.

RR = % Reserve Requirement for Bank of Japan Member Banks. [% demand deposit accounts banks must hold in reserve for withdrawals from demand deposit (checking/debit card type) liabilities].

X = Any specific observation in time series 0 to N.

Annual Monetary Intermediation Cost (¥) of Bank of Japan Banking System Estimate

$= [(MS_N)-(MS_{N-1})] \times [1-RR(\%)] + [\text{Net Annual Operating Expenses}]$

Annual Monetary Intermediation Cost (%) of Bank of Japan Banking System Estimate

$$= \frac{[(MS_N)-(MS_{N-1})] \times [1-RR(\%)] + [\text{Net Annual Operating Expenses}]}{[GDP_N]}$$

Economy Increase/Change Formula

$$[\% \text{ Change } GDP_N] = \frac{[GDP_N - GDP_{N-1}]}{[GDP_{N-1}]}$$

Money Stock Increase Formulas

$[\% \text{ Change Money Stock}_N] = \frac{[\text{Money Stock}_0] \times [GDP_N]}{[\text{Money Stock}_{N-1}] \times [GDP_0]} - 1$

[Labor Dividend]

[Interest]

[Seigniorage]

Provided if [% Change Money Stock$_N$] less than 0%, then 0%.
(Positive growth condition, [GDP$_N$] must be greater than any previous [GDP$_X$] in the series 0 to N-1 for Payment of Labor/Productivity Dividend)

Money stock increase will remain at zero [Money Stock$_{N-1}$] until economy fully recovered from GDP decline. Since people receive seigniorage, creation and first use of new money, directly on a pro rata basis there is no economic benefit of inflating the money stock during periods of economic decline. [Money stock is increased now via direct wealth transfer from the other sectors of the economy to the banking system, making recessions worse for everyone but the banking sector.]

$$[\text{Money Stock}_N] = [\text{Money Stock}_{N-1}] \times \frac{[GDP_N]}{[GDP_{N-1}]}$$

Provided if [% Change Money Stock$_N$] less than 0%, then [Money Stock$_N$] = [Money Stock$_{N-1}$].
(Positive growth condition, [GDP$_N$] must be greater than any previous [GDP$_X$] in series 0 to N-1 for [Money Stock$_N$] increase)

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