

## Attachment 10

# Federal Reserve System Monetary Intermediation Cost

## Monetary Intermediation Cost Impact on Economy and Jobs

	Assumptions
a-Bank Reserve Requirement (From Attachment 1)	10.00%
b-Bank Note Rate Est.(Risk Free Rate( $r_f$ ) [Not less than zero] + Risk Premium est. at 25bp)	0.25%
c-Federal Funds Overnight Rate for Reference Rate	1/11/2013 0.16%
c-Economic Growth Rate (Est.) for Cap Rate	4.00%
d-Capital Value per Job Est. (Adjustable)	\$1,000,000
7-New York Times 7/6/2009 Estimated Job Creation Cost (\$)	\$31,169

### Step 1. Estimate Monetary Intermediation Cost

I. Historical Average (2003-2012, Last 10-years)	
	(\$ Billions)
1. Fed Operations (Fiscal 2012 Actual Net) <sup>1</sup>	\$3.74
2. New Money (M2M) Issued times ( 1 - reserve requirement) <sup>1,a</sup>	\$447.17
Total Annual Intermediation	\$450.90
Intermediation Capitalized <sup>2,c</sup>	\$11,272.56

II. Fiscal 2012 Actual	
	(\$ Billions)
1. Fed Operations (Fiscal 2012 Actual Net) <sup>1</sup>	\$3.74
2. New Money (M2M) Issued times ( 1 - reserve requirement) <sup>1,a</sup>	\$827.10
Total Annual Intermediation	\$830.84
Intermediation Capitalized <sup>2,c</sup>	\$20,770.93

III. Monetary Debt Impact <sup>1,2,3 Notes</sup>	
	(as of 9/30/2012) (\$ Billions)
Bank note to Gov't to cover fractional reserve deposit cash shortage <sup>3,d</sup>	\$5,524.20
Commercial Bank Federal Gov.t Securities Holdings Retired <sup>3</sup>	\$1,848.40
Federal Reserve Gov't Securities Holdings Retired <sup>3</sup>	\$1,146.35
Intermediation Capitalized	\$8,518.95

#### Notes

- 1-United States government debt holdings by commercial banks expected to be credited and retired for use in funding full reserve deposits.
- 2-Bank debt to U.S. gov't estimated to be first lien at the same interest rate for all banks based on the risk free rate ( $r_f$ ) for United States, 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-Fed Operations and M2M increases from Attachment 4 Fed Annual Monetary Intermediation Cost 1984 to 2012 using M2M Money Stock.
- 2-Intermediation Capitalized = [Annual Intermediation] ÷ [Economic Growth est. for Cap Rate (c)]
- 3-Bank Note and Treasuries Retired from attachment 8(d) United States Consolidated Balance Sheet.
- 4-GDP from St. Louis Fed economic data at <http://research.stlouisfed.org/fred2/series/GDP> Last Updated 3/28/2013
- 5-Total Central Government debt from Attachment 9 Federal Debt Securities Held by the Public and Accrued Interest.
- 6-Unemployment data from European Commission eurostat, Harmonised unemployment, Not seasonally adjusted, total of both sexes - total (teilm010) at [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une\\_nb\\_m&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_nb_m&lang=en) Last Updated 5/21/2013
- 7-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/>

### Step 2. Estimate Monetary Intermediation Cost Impact on 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.)	
United States Economic Indicators (as of 12/31/2012 or Fiscal 9/30/2012)	
GDP Fiscal 2012 (\$ Billions) <sup>4</sup>	\$15,864.1
Total Central Government Debt (\$ Billions) <sup>5</sup>	\$11,332.3
Unemployment, 2012-12 [une_nb_m] <sup>6</sup>	11,845,000

Risk Free Rate ( $r_f$ ) for bank note, not less than 0%	
[GDP] - [Monetary Intermediation] (Net % GDP)	
1984 to 2012 ( 29 Years)	2.55%
2003 to 2012 (10 Years)	0.77%
2008 to 2012 (5 Years)	-2.24%
Last Year 2012	-1.69%
Source: Attachment 4	

Federal Reserve System Monetary Intermediation Cost Economic Impact Estimates	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Intermediation Cost		Jobs Impact Estimates			Unemployment	GDP %	Federal Debt
	Annual	Capitalized	Annual	Capitalized	Average	Reduction %	Improvement	Reduction %
<b>Estimation Basis</b>	(\$ Billions)	(\$ Billions)	= (A)/NYT Est <sup>7</sup>	= (B)/\$1,000,000 (d)	=[(C)+(D)]/2	=(E)/[Unemployment]	=(A) / [GDP]	=(B)/[Fed Debt]
I. Last 10 Ave (03-12)	\$450.90	\$11,272.56	14,466,367	11,272,555	12,869,461	108.6%	2.8%	
II. Fiscal 2012 Actual	\$830.84	\$20,770.93	26,655,882	20,770,930	23,713,406	200.2%	5.2%	
III. Monetary Debt Est.	\$340.76	\$8,518.95	10,932,589	8,518,947	9,725,768	82.1%	2.1%	75.2%
<b>Averages</b>	<b>\$540.83</b>	<b>\$13,520.81</b>	<b>17,351,613</b>	<b>13,520,811</b>	<b>15,436,212</b>	<b>130.3%</b>	<b>3.4%</b>	<b>75.2%</b>
The Fed fractional reserve monetary system has an average 90.0% (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 \$1,000,000 of capital value per job creation, the average \$13.5 trillion capitalized cost represents an estimated 13,520,000 private sector jobs. Per NY Times estimate the \$540.8 billion annual cost would be approximately 17,351,000 jobs. These estimates indicate the approximate cost of monetary intermediation is on the order of thirteen to fifteen million or more jobs.								

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