## Federal Reserve Monetary Intermediation Cost to the American Economy Fed Annual Monetary Intermediation Cost 1984 to 2016 using M2M Money Stock<sup>1</sup>

Intermediation Cost Federal Reserve System (\$)

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Assumptions

Fed Reserve Requirement (RR)

10.0%

			(5) (4) (4)	(C) = (B <sup>a</sup> ) x (1-RR)				(0) (5 5 )/5					
(N)		(A)	$(B) = (A_N) - (A_{N-1})$	. , . , . ,	(D)	(E) = (C) + (D)	(F)	$(G) = (F_N - F_{N-1})/F_{N-1}$	( ) ( ) ( )	(1)	(J) = (G) - (H)	(K) = (G) - ( I )	(L) = (J) - (K)
		MoneyStock	\$ Increase	Money Stock Change	, ,	Total Annual			on Cost Federal	Reserve Syst	em (% Est.)	Compariso	n Analysis
	Year	M2M-NS <sup>1</sup>	Prior Year	Intermediation Cost	Budget <sup>2</sup>	Intermediation	GDP <sup>3</sup>	GDP <sup>3</sup>	Intermediation		GDP-Intermediation	GDP-Inflation	Real r <sub>f</sub> GDP -
#	(End 12/31)	(\$ Billions)	(\$ Billions)	(\$ Billions)	(\$ Billions)	Cost (\$ Billions)	(\$ Billions)	(% Growth)	(% GDP Cost)	CPI-U (EOY)⁴	Net (% GDP) (r <sub>f</sub> )	Net (% GDP)	Nominal GDP
0	1983	\$1,349.6					\$3,638.1					Reported Growth	Difference w/Real
1	1984	\$1,448.7	\$99.1	\$89.19	\$0.607	\$89.797	\$4,040.7	11.065%	2.222%	3.949%	8.843%	7.116%	1.726%
2	1985	\$1,617.8	\$169.1	\$152.19	\$0.487	\$152.677	\$4,346.7	7.574%	3.512%	3.799%	4.062%	3.775%	0.286%
3	1986	\$1,894.6	\$276.8	\$249.12	\$0.504	\$249.624	\$4,590.2	5.600%	5.438%	1.098%	0.162%	4.502%	-4.340%
4	1987	\$1,921.4	\$26.8	\$24.12	\$0.504	\$24.624	\$4,870.2	6.101%	0.506%	4.434%	5.596%	1.667%	3.929%
5	1988	\$1,946.5	\$25.1	\$22.59	\$0.564	\$23.154	\$5,252.6	7.852%	0.441%	4.419%	7.411%	3.433%	3.979%
6	1989	\$2,017.6	\$71.1	\$63.99	\$0.582	\$64.572	\$5,657.7	7.712%	1.141%	4.647%	6.570%	3.064%	3.506%
7	1990	\$2,113.4	\$95.8	\$86.22	\$0.604	\$86.824	\$5,979.6	5.690%	1.452%	6.106%	4.238%	-0.417%	4.654%
8	1991	\$2,339.0	\$225.6	\$203.04	\$0.685	\$203.725	\$6,174.0	3.252%	3.300%	3.064%	-0.048%	0.188%	-0.235%
9	1992	\$2,565.9	\$226.9	\$204.21	\$0.771	\$204.981	\$6,539.3	5.916%	3.135%	2.901%	2.781%	3.015%	-0.234%
10	1993	\$2,704.7	\$138.8	\$124.92	\$0.894	\$125.814	\$6,878.7	5.190%	1.829%	2.748%	3.361%	2.442%	0.919%
11	1994	\$2,661.7	(\$43.0)	(\$38.70)	\$0.958	(\$37.742)	\$7,308.8	6.252%	-0.516%	2.675%	6.768%	3.577%	3.191%
12	1995	\$2,717.6	\$55.9	\$50.31	\$1.029	\$51.339	\$7,664.1	4.861%	0.670%	2.538%	4.191%	2.323%	1.869%
13	1996	\$2,879.2	\$161.6	\$145.44	\$1.084	\$146.524	\$8,100.2	5.691%	1.809%	3.322%	3.882%	2.368%	1.514%
14	1997	\$3,081.3	\$202.1	\$181.89	\$1.124	\$183.014	\$8,608.5	6.275%	2.126%	1.702%	4.149%	4.573%	-0.424%
15	1998	\$3,451.2	\$369.9	\$332.91	\$1.192	\$334.102	\$9,089.2	5.583%	3.676%	1.612%	1.908%	3.972%	-2.064%
16	1999	\$3,696.5	\$245.3	\$220.77	\$1.214	\$221.984	\$9,660.6	6.287%	2.298%	2.685%	3.989%	3.603%	0.387%
17	2000	\$3,914.0	\$217.5	\$195.75	\$1.245	\$196.995	\$10,284.8	6.461%	1.915%	3.387%	4.545%	3.074%	1.471%
18	2001	\$4,474.7	\$560.7	\$504.63	\$1.411	\$506.041	\$10,621.8	3.277%	4.764%	1.552%	-1.487%	1.725%	-3.212%
19	2002	\$4,890.4	\$415.7	\$374.13	\$1.534	\$375.664	\$10,977.5	3.349%	3.422%	2.377%	-0.073%	0.972%	-1.045%
20	2003	\$5,229.1	\$338.7	\$304.83	\$1.655	\$306.485	\$11,510.7	4.857%	2.663%	1.879%	2.194%	2.977%	-0.783%
21	2004	\$5,549.8	\$320.7	\$288.63	\$1.498	\$290.128	\$12,274.9	6.640%	2.364%	3.256%	4.276%	3.384%	0.892%
22	2005	\$5,683.4	\$133.6	\$120.24	\$1.476	\$121.716	\$13,093.7	6.670%	0.930%	3.416%	5.741%	3.255%	2.486%
23	2006	\$5,865.6	\$182.2	\$163.98	\$1.613	\$165.593	\$13,855.9	5.821%	1.195%	2.541%	4.626%	3.280%	1.346%
24	2007	\$6,199.5	\$333.9	\$300.51	\$2.411	\$302.921	\$14,477.6	4.487%	2.092%	4.081%	2.395%	0.406%	1.989%
25	2008	\$6,809.7	\$610.2	\$549.18	\$2.536	\$551.716	\$14,718.6	1.664%	3.748%	0.091%	-2.084%	1.573%	-3.657%
26	2009	\$7,289.0	\$479.3	\$431.37	\$2.914	\$434.284	\$14,418.7	-2.037%	3.012%	2.721%	-5.049%	-4.759%	-0.291%
27	2010	\$7,920.0	\$631.0	\$567.90	\$3.211	\$571.111	\$14,964.4	3.784%	3.816%	1.496%	-0.032%	2.288%	-2.321%
28	2011	\$8,984.0	\$1,064.0	\$957.60	\$3.398	\$960.998	\$15,517.9	3.699%	6.193%	2.962%	-2.494%	0.737%	-3.230%
29	2012	\$9,858.8	\$874.8	\$787.32	\$3.737	\$791.057	\$16,155.3	4.107%	4.897%	1.741%	-0.790%	2.366%	-3.156%
30	2013	\$10,528.9	\$670.1	\$603.09	\$3.877	\$606.967	\$16,691.5	3.319%	3.636%	1.502%	-0.317%	1.818%	-2.135%
31	2014	\$11,231.3	\$702.4	\$632.16	\$4.045	\$636.205	\$17,427.6	4.410%	3.651%	0.756%	0.759%	3.653%	-2.894%
32	2015	\$12,062.7	\$831.4	\$748.26	\$4.154	\$752.414	\$18,120.7	3.977%	4.152%	0.730%	-0.175%	3.248%	-3.423%
33	2016	\$12,002.7	\$864.9	\$778.41	\$4.339	\$782.749	\$18,624.5	2.780%	4.203%	2.075%	-1.423%	0.705%	-2.128%
33													
	TOTALS		\$11,578.0	\$10,420.20	\$57.858		\$348,497.2	5.07%	2.71%	2.67%	2.33%	2.40%	-0.07%
	•	s (1984-2016)	\$350.85	\$315.76		\$317.52	Count(Years)	33	33	33	33	33	33
₹ve L	ast 10 Year	s (2007-2016)	\$706.20	\$635.58	\$3.46	\$639.04	Last 10 Yrs	3.00%	3.93%	1.81%	-0.94%	1.18%	-2.14%
н					1	_	Count(Years)	10	10	10	10	10	10
ļ	Federal Reserve Monetary Intermediation Cost Estimate					Last	5 Yrs Annual	<b>3.72%</b> 5	4.11%	1.36%	-0.39%	2.35%	-2.75%
	Intermediation cost percentage estimated as [(M2M Money Stock growth in \$) times					Count(Years)			5	5	5	5	5
(1- Reserve Requirement) + Fed net operating cost] divided by [GDP (\$)].					2016 Economy to 2008 (Last 5 Compounded)			120.0%	122.3%	107.0%	98.1%	112.3%	87.0%
Change since 2012 (Last 5 Compounded Net Change)							20.0%	22.3%	7.0%	-1.9%	12.3%	-13.0%	
								Nominal GDP Growth	Compounded	Compounded	Real rf GDP Growth	Nominal GDP -	Real rf GDP -
	2011225					w/Inflation	Intermediation	Inflation	•	Inflation	Nominal GDP		
	SOURCES:										Difference between re	ported nominal GD	P and real r <sub>f</sub> GDP.

## SOURCES:

1-M2M Money Stock data from St. Louis Fed at Last Updated http://research.stlouisfed.org/fred2/series/M2MNS 11/1/2017

2-FRS actual budget data from Publications Annual Reports Net System Operating Expenses, Table 1 since 2013 at http://www.federalreserve.gov/publications/budget-review/default.htm (Table 2 from 2010-2012)

3-GDP numbers from St. Louis Fed economic data Last Updated https://fred.stlouisfed.org/series/GDPA 10/27/2017

4-Inflation CPI-U (Dec to Dec) data from Bureau of Labor Statistics at http://www.bls.gov/cpi/ Download Date 12/22/2017 Notes

For last five years, [GDP-Inflation] shows misleading higher growth rate than real rf. First

use new money creation wealth transfer to banks hides economy's contracting GDP. 1-M2M-NS Money Stock consists of: 1) currency in circulation, 2) traveler's checks of nonbank issuers, 3) demand deposits, 4) other checkable deposits (OCDs), primarily negotiable order of withdrawal

(NOW) accounts, 5) savings deposits (which include money market deposit accounts, or MMDAs), and 6) balances in retail money market mutual funds (MMMFs). NS - Not seasonally adjusted. 2-FRS actual budget report net system expenses, Table 1.1 (1996-2009) Table 1.2 (1986-1995) Report.

a-Ignores interest rate manipulation intermediation cost since primarily funded by monetary expansion.