



## CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

### NEWS RELEASE

EMBARGOED UNTIL RELEASE AT 9:00 A.M. EDT, WEDNESDAY, MAY 22, 2013.

## CFS DIVISIA MONETARY DATA FOR THE UNITED STATES:<sup>1</sup> APRIL 2013

### The CFS Featured Broad Divisia Monetary Aggregates in April 2013

- CFS Divisia M4, including Treasuries (DM4) – the broadest and most important measure of money calculated by the Center for Financial Stability – grew by 5.1% in April 2013, on a year-over-year basis. In contrast, CFS Divisia M4 increased by 1.4% in April 2012 over the preceding year.
- The narrower version of the CFS Divisia M4, excluding Treasuries, (DM4-), increased by 5.0% in April 2013 over the year, relative to a year-over-year gain of 1.7% in April 2012.
- CFS Divisia M3 (DM3) advanced by 5.1% year-over-year, relative to an increase of 3.2% in April 2012.

### The Narrow Divisia Monetary Aggregates in April 2013<sup>2</sup>

- CFS Divisia M2 (DM2) advanced by 7.3% year-over-year, relative to an increase of 10.1% in April 2012 over the preceding year.
- CFS Divisia M1 (DM1) advanced by 14.8% year-over-year, relative to an increase of 11.6% in April 2012 over the preceding year.

### Most Significant Factors Influencing CFS Divisia M4 in April 2013

#### *Positive Contributors to CFS Divisia M4 Growth*

- The largest positive contributor to CFS Divisia M4 growth was commercial banks' savings deposits (sweeps adjusted), contributing an increase of 2.3% in the last 12 months ending April 2013. Their growth-rate weight was 27.4%. Unweighted, they increased 8.7% in the last 12 months. This component is included in all of the aggregates, except the narrowest (DM1).
- The second largest positive contributor to growth was demand deposits (sweeps adjusted), contributing an increase of 1.8% in the last 12 months ending April 2013. Their growth-rate weight was 8.5%. Unweighted, they increased 23.3% in the last 12 months. This component is included in all of the aggregates.
- The third largest positive contributor to growth was T-bills, contributing an increase of 0.5% in the last 12 months ending April 2013. Their growth-rate weight was 9.3%. Unweighted, they increased 5.4% in the last 12 months. This component is included only in the broadest aggregate (DM4).

---

<sup>1</sup> The CFS Divisia indexes in this release were constructed under the direction of Professor William A. Barnett. Dr. Barnett is the originator of the Divisia monetary aggregates, which he has been developing and refining for decades, in accordance with modern advances in economic aggregation and index-number theory.

<sup>2</sup> The narrow aggregates, DM1 and DM2, are similar to the MSI (monetary services index) Divisia aggregates, supplied by the St. Louis Federal Reserve Bank. See page 18 for the relationship between the CFS and the MSI aggregates. The broad Divisia monetary aggregates, DM3, DM4-, and DM4, are available only from the CFS, since no other source currently exists for broad Divisia monetary aggregates for the US.

© Center for Financial Stability 2013. All rights reserved.



## CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

### *Negative Contributors to CFS Divisia M4 Growth*

- The largest negative contributor to CFS Divisia M4 growth was commercial banks' small time deposits, contributing a decrease of 0.5% in the last 12 months ending April 2013. Their growth-rate weight was 2.6%. Unweighted, they decreased 17.7% in the last 12 months. This component is included in all of the aggregates, except the narrowest (DM1).
- The second largest negative contributor to CFS Divisia M4 growth was repurchase agreements, contributing a decrease of 0.2% in the last 12 months ending April 2013. Their growth-rate weight was 9.4%. Unweighted, they decreased 1.8% in the last 12 months. This component is included in DM3, DM4-, and DM4, but not in the narrower aggregates (DM1 and DM2).
- The third largest negative contributor to CFS Divisia M4 growth was thrifts' small time deposits, contributing a decrease of 0.2% in the last 12 months ending April 2013. Their growth-rate weight was 0.9%. Unweighted, they decreased 19.3% in the last 12 months. This component is included in all of the aggregates, except the narrowest (DM1).

### **Contents**

### **Page**

Figure 1 - Recent Growth in Broad CFS Divisia Monetary Data	3
Figure 2 - Recent Growth in Narrow CFS Divisia Monetary Data	3
Figure 3 - CFS Divisia Monetary Aggregates Table, Year-Over-Year Percent Change	4
Figure 4 - CFS Divisia Data Table (DM4, DM4-, and DM3)	5
Figure 5 - CFS Divisia Data Table (DM2 and DM1)	6
Figure 6 - Components of CFS Divisia M4 - Highlights for April 2013	7
Figure 7 - CFS Divisia Monetary Growth Charts	8
Figure 8 - CFS Divisia Monetary Aggregates Level Charts	9
Figure 9 - Components of All CFS Divisia Aggregates	10
Figure 10 - Components of CFS Divisia M4 - Highlights for April 2013	11
Figure 11 - Components of CFS Divisia M4 (Asset Levels in Billions of Dollars)	12
Figure 12 - Components of CFS Divisia M4 (Year-Over-Year Growth Rates)	13
Figure 13 - CFS Divisia M4 Growth-Rate Weights	14
Figure 14 - Weighted Contributions to Divisia M4 Growth (12-Month Moving Average)	15
Figure 15 - Unweighted Components of CFS Divisia M4 (Year-Over-Year Growth Rates)	16
Figure 16 - CFS Divisia M4 Quarterly Growth Triangle	17
Introduction to CFS Divisia Monetary Aggregates	18
CFS Divisia Resources on the Center for Financial Stability Site	19
About the Center for Financial Stability	19
CFS Divisia Contacts	19

---

The next CFS Divisia M4 data are scheduled to be released at 9:00 AM EDT on Wednesday, June 19, 2013.

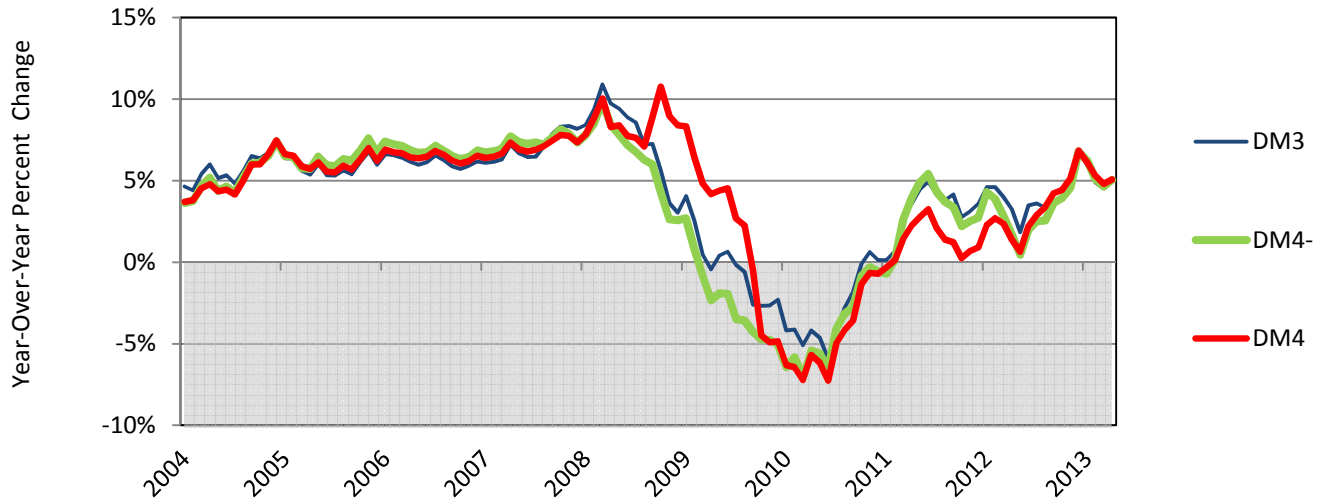
---



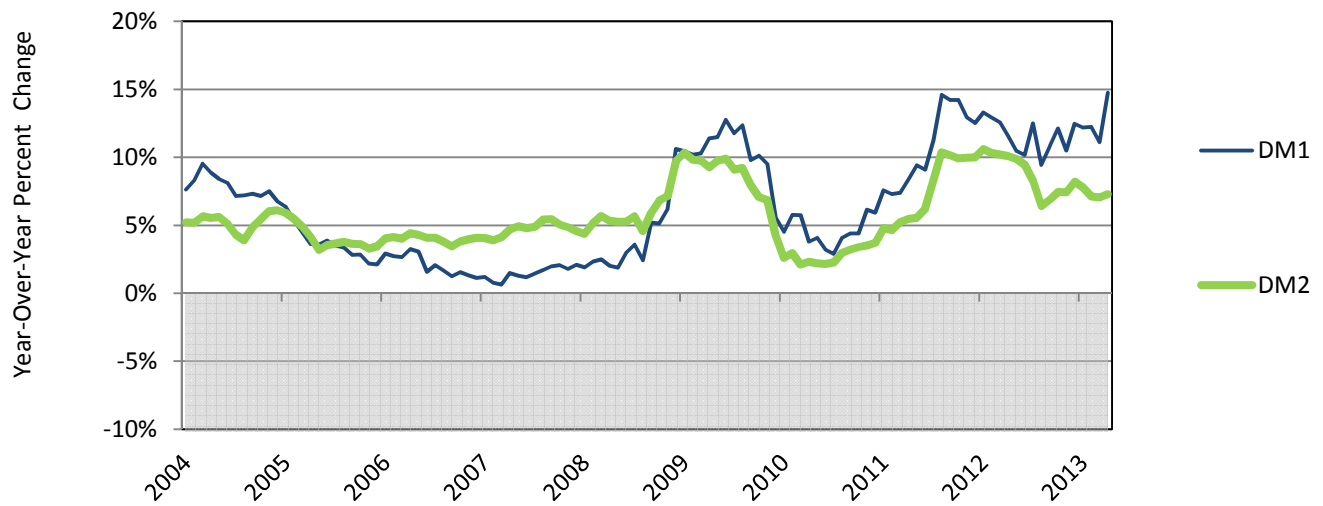
# CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

**Figure 1 - Recent Growth in Broad CFS Divisia Monetary Data<sup>3</sup>**



**Figure 2 - Recent Growth in Narrow CFS Divisia Monetary Data<sup>4</sup>**



<sup>3</sup> The broadest CFS Divisia monetary aggregates are **best** for most purposes. See p. 18 for background on the supporting research. We nevertheless provide the narrower CFS Divisia aggregates in Figure 2 for comparison.

<sup>4</sup> The narrow aggregates shown here, DM1 and DM2, are similar to the MSI (monetary services index) Divisia aggregates, supplied by the St. Louis Federal Reserve Bank. For more information about the St. Louis Fed's MSI Divisia aggregates and their relationship to the CFS Divisia monetary aggregates, see p. 18.



# CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

**Figure 3 - CFS Divisia Monetary Aggregates Table, Year-Over-Year Percent Change**

Date	Divisia M4 Including Treasuries (DM4)	Divisia M4 Excluding Treasuries (DM4-)	Divisia M3	Divisia M2 (Sweeps Adjusted) <sup>5</sup>	Divisia M1 (Sweeps Adjusted) <sup>5</sup>
Jul-10	-5.0%	-4.1%	-4.2%	2.3%	2.9%
Aug-10	-4.1%	-3.2%	-2.8%	3.0%	4.1%
Sep-10	-3.6%	-2.8%	-1.8%	3.2%	4.4%
Oct-10	-1.3%	-0.8%	-0.1%	3.4%	4.4%
Nov-10	-0.7%	-0.3%	0.6%	3.5%	6.1%
Dec-10	-0.7%	-0.6%	0.1%	3.7%	5.9%
Jan-11	-0.3%	-0.7%	0.1%	4.8%	7.6%
Feb-11	0.1%	0.1%	0.7%	4.6%	7.3%
Mar-11	1.4%	2.6%	2.9%	5.2%	7.4%
Apr-11	2.2%	3.9%	3.6%	5.5%	8.4%
May-11	2.8%	4.9%	4.5%	5.5%	9.4%
Jun-11	3.2%	5.4%	4.9%	6.2%	9.1%
Jul-11	2.1%	4.3%	4.1%	8.2%	11.2%
Aug-11	1.4%	3.7%	3.8%	10.4%	14.6%
Sep-11	1.2%	3.4%	4.1%	10.2%	14.2%
Oct-11	0.2%	2.2%	2.8%	9.9%	14.2%
Nov-11	0.7%	2.5%	3.1%	10.0%	12.9%
Dec-11	0.9%	2.7%	3.6%	10.0%	12.5%
Jan-12	2.3%	4.3%	4.6%	10.6%	13.3%
Feb-12	2.7%	3.9%	4.6%	10.3%	12.9%
Mar-12	2.4%	2.9%	4.0%	10.2%	12.6%
Apr-12	1.4%	1.7%	3.2%	10.1%	11.6%
May-12	0.6%	0.5%	1.8%	9.9%	10.5%
Jun-12	2.2%	2.0%	3.5%	9.4%	10.2%
Jul-12	2.9%	2.5%	3.6%	8.2%	12.5%
Aug-12	3.4%	2.6%	3.4%	6.4%	9.4%
Sep-12	4.2%	3.6%	4.2%	6.9%	10.8%
Oct-12	4.4%	3.9%	4.5%	7.4%	12.1%
Nov-12	5.1%	4.5%	4.9%	7.4%	10.5%
Dec-12	6.8%	6.8%	6.7%	8.2%	12.5%
Jan-13	6.1%	6.3%	6.0%	7.8%	12.2%
Feb-13	5.3%	5.1%	4.9%	7.1%	12.2%
Mar-13	4.8%	4.6%	4.5%	7.1%	11.1%
Apr-13	5.1%	5.0%	5.1%	7.3%	14.8%

Note: Cells are shaded on a gradient from dark green (maximum) to dark red (minimum).

<sup>5</sup> While the broadest Divisia monetary aggregates are best for most purposes, we provide the narrower CFS Divisia aggregates for comparison. The narrow aggregates shown here, DM1 and DM2, are similar to the MSI (monetary services index) Divisia aggregates, supplied by the St. Louis Federal Reserve Bank. For more information about the St. Louis Fed's MSI Divisia aggregates and their relationship to the CFS Divisia monetary aggregates, see p. 18.



# CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

**Figure 4 - CFS Divisia Data Table (DM4, DM4-, and DM3)**

Levels are normalized to equal 100 in Jan. 1967

Date	Divisia M4 Including Treasuries (DM4)			Divisia M4 Excluding Treasuries (DM4-)			Divisia M3		
	Level	Yr-Over-Yr % Growth Rate	Interest-Rate Aggregate %	Level	Yr-Over-Yr % Growth Rate	Interest-Rate Aggregate %	Level	Yr-Over-Yr % Growth Rate	Interest-Rate Aggregate %
Jul-10	1,201	-5.0%	0.20%	1,103	-4.1%	0.20%	1,081	-4.2%	0.19%
Aug-10	1,208	-4.1%	0.17%	1,111	-3.2%	0.17%	1,090	-2.8%	0.16%
Sep-10	1,210	-3.6%	0.16%	1,113	-2.8%	0.16%	1,089	-1.8%	0.15%
Oct-10	1,221	-1.3%	0.15%	1,124	-0.8%	0.15%	1,102	-0.1%	0.14%
Nov-10	1,218	-0.7%	0.14%	1,122	-0.3%	0.15%	1,102	0.6%	0.14%
Dec-10	1,213	-0.7%	0.14%	1,116	-0.6%	0.15%	1,096	0.1%	0.14%
Jan-11	1,207	-0.3%	0.14%	1,107	-0.7%	0.14%	1,091	0.1%	0.13%
Feb-11	1,205	0.1%	0.14%	1,115	0.1%	0.14%	1,096	0.7%	0.13%
Mar-11	1,211	1.4%	0.13%	1,128	2.6%	0.13%	1,106	2.9%	0.12%
Apr-11	1,225	2.2%	0.11%	1,142	3.9%	0.12%	1,114	3.6%	0.11%
May-11	1,234	2.8%	0.10%	1,155	4.9%	0.11%	1,127	4.5%	0.10%
Jun-11	1,225	3.2%	0.10%	1,147	5.4%	0.11%	1,119	4.9%	0.10%
Jul-11	1,227	2.1%	0.10%	1,151	4.3%	0.10%	1,126	4.1%	0.10%
Aug-11	1,225	1.4%	0.11%	1,153	3.7%	0.11%	1,131	3.8%	0.11%
Sep-11	1,225	1.2%	0.11%	1,151	3.4%	0.12%	1,134	4.1%	0.11%
Oct-11	1,224	0.2%	0.11%	1,149	2.2%	0.12%	1,132	2.8%	0.11%
Nov-11	1,226	0.7%	0.12%	1,151	2.5%	0.13%	1,136	3.1%	0.12%
Dec-11	1,224	0.9%	0.12%	1,146	2.7%	0.13%	1,136	3.6%	0.13%
Jan-12	1,234	2.3%	0.12%	1,154	4.3%	0.13%	1,141	4.6%	0.12%
Feb-12	1,238	2.7%	0.12%	1,159	3.9%	0.12%	1,147	4.6%	0.12%
Mar-12	1,240	2.4%	0.12%	1,160	2.9%	0.13%	1,150	4.0%	0.12%
Apr-12	1,242	1.4%	0.12%	1,161	1.7%	0.13%	1,150	3.2%	0.12%
May-12	1,242	0.6%	0.12%	1,160	0.5%	0.13%	1,148	1.8%	0.12%
Jun-12	1,252	2.2%	0.13%	1,169	2.0%	0.13%	1,158	3.5%	0.12%
Jul-12	1,262	2.9%	0.12%	1,180	2.5%	0.12%	1,166	3.6%	0.12%
Aug-12	1,266	3.4%	0.11%	1,182	2.6%	0.11%	1,169	3.4%	0.11%
Sep-12	1,277	4.2%	0.11%	1,193	3.6%	0.11%	1,182	4.2%	0.11%
Oct-12	1,279	4.4%	0.12%	1,194	3.9%	0.12%	1,184	4.5%	0.11%
Nov-12	1,289	5.1%	0.10%	1,203	4.5%	0.11%	1,192	4.9%	0.10%
Dec-12	1,308	6.8%	0.10%	1,224	6.8%	0.10%	1,212	6.7%	0.10%
Jan-13	1,310	6.1%	0.09%	1,226	6.3%	0.10%	1,209	6.0%	0.09%
Feb-13	1,303	5.3%	0.10%	1,217	5.1%	0.09%	1,203	4.9%	0.09%
Mar-13	1,300	4.8%	0.10%	1,214	4.6%	0.10%	1,202	4.5%	0.09%
Apr-13	1,305	5.1%	0.09%	1,220	5.0%	0.10%	1,209	5.1%	0.09%



# CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

**Figure 5 - CFS Divisia Data Table (DM2 and DM1)**

Levels are normalized to equal 100 in Jan. 1967

Date	Divisia M2 (Sweeps Adjusted)			Divisia M1 (Sweeps Adjusted)		
	Level	Yr-Over-Yr % Growth Rate	Interest-Rate Aggregate %	Level	Yr-Over-Yr % Growth Rate	Interest-Rate Aggregate %
Jul-10	987	2.3%	0.12%	1,221	2.9%	0.03%
Aug-10	992	3.0%	0.12%	1,235	4.1%	0.03%
Sep-10	997	3.2%	0.11%	1,244	4.4%	0.03%
Oct-10	1,003	3.4%	0.10%	1,252	4.4%	0.03%
Nov-10	1,008	3.5%	0.10%	1,274	6.1%	0.03%
Dec-10	1,011	3.7%	0.09%	1,279	5.9%	0.02%
Jan-11	1,014	4.8%	0.09%	1,288	7.6%	0.02%
Feb-11	1,020	4.6%	0.09%	1,299	7.3%	0.02%
Mar-11	1,025	5.2%	0.09%	1,306	7.4%	0.02%
Apr-11	1,031	5.5%	0.09%	1,312	8.4%	0.02%
May-11	1,037	5.5%	0.09%	1,331	9.4%	0.02%
Jun-11	1,047	6.2%	0.08%	1,336	9.1%	0.02%
Jul-11	1,069	8.2%	0.08%	1,359	11.2%	0.02%
Aug-11	1,095	10.4%	0.08%	1,415	14.6%	0.02%
Sep-11	1,099	10.2%	0.08%	1,421	14.2%	0.01%
Oct-11	1,102	9.9%	0.07%	1,430	14.2%	0.01%
Nov-11	1,108	10.0%	0.07%	1,439	12.9%	0.01%
Dec-11	1,112	10.0%	0.07%	1,439	12.5%	0.01%
Jan-12	1,121	10.6%	0.06%	1,459	13.3%	0.01%
Feb-12	1,126	10.3%	0.07%	1,467	12.9%	0.01%
Mar-12	1,130	10.2%	0.07%	1,470	12.6%	0.01%
Apr-12	1,135	10.1%	0.07%	1,464	11.6%	0.01%
May-12	1,140	9.9%	0.07%	1,470	10.5%	0.01%
Jun-12	1,146	9.4%	0.07%	1,472	10.2%	0.01%
Jul-12	1,157	8.2%	0.06%	1,529	12.5%	0.01%
Aug-12	1,165	6.4%	0.06%	1,549	9.4%	0.01%
Sep-12	1,174	6.9%	0.06%	1,574	10.8%	0.01%
Oct-12	1,184	7.4%	0.06%	1,603	12.1%	0.01%
Nov-12	1,191	7.4%	0.05%	1,590	10.5%	0.01%
Dec-12	1,204	8.2%	0.05%	1,619	12.5%	0.01%
Jan-13	1,208	7.8%	0.06%	1,637	12.2%	0.01%
Feb-13	1,206	7.1%	0.07%	1,646	12.2%	0.01%
Mar-13	1,209	7.1%	0.07%	1,633	11.1%	0.01%
Apr-13	1,218	7.3%	0.07%	1,680	14.8%	0.01%



CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

Figure 6 - Components of CFS Divisia M4 - Highlights for April 2013

Components in this table build from the narrowest aggregate at the top to the broadest at the bottom. For example, the darkest green in the left column includes components of DM1. The next tier shows the components included in DM2, but not within DM1.

	Weighted Contribution To DM4 Money Annual Growth Rate*	Divisia Growth-Rate Weights (Average of Last 12 Months)	Unweighted Year-Over-Year Percentage Growth Rate
<b>DM1</b>			
Currency	0.4%	6.4%	7.3%
Traveler's Checks	0.0%	0.0%	-9.8%
Demand Deposits **	1.8%	8.5%	23.3%
OCDs at Commercial Banks **	0.2%	2.4%	7.9%
OCDs at Thrift Institutions **	0.2%	1.8%	12.8%
<b>Added into DM2</b>			
Savings Deposits at Commercial Banks **	2.3%	27.4%	8.7%
Savings Deposits at Thrift Institutions **	-0.1%	4.7%	-1.5%
Retail Money-Market Funds	0.0%	3.7%	-0.6%
Small Time Deposits at Commercial Banks	-0.5%	2.6%	-17.7%
Small Time Deposits at Thrifts	-0.2%	0.9%	-19.3%
<b>Added into DM3</b>			
Institutional Money-Market Funds	0.1%	10.2%	1.0%
Large Time Deposits	0.2%	7.1%	3.3%
Repurchase Agreements	-0.2%	9.4%	-1.8%
<b>Added into DM4-</b>			
Commercial Paper	0.2%	5.3%	4.5%
<b>Added into DM4</b>			
T-Bills	0.5%	9.3%	5.4%

Note: The row labels in the first column are shaded to show which components are included into which aggregates. Each data column is shaded on a gradient from dark green (maximum) to dark red (minimum). See the figures 10-15 for these calculations over time and a chart version of the above table.

\* Average of last 12 monthly weighted contributions to CFS Divisia M4 growth rates (annual rates). Unlike the other percent calculations in this report, the weighted contributions use continuous percent changes computed from natural logs.

\*\* Sweeps adjusted.

**Components That Are Pulling CFS Divisia M4 Up**

The largest positive contributor to CFS Divisia M4 growth was commercial banks' savings deposits (sweeps adjusted), contributing an increase of 2.3% in the last 12 months ending April 2013. Their growth-rate weight was 27.4%. Unweighted, they increased 8.7% in the last 12 months. This component is included in all of the aggregates, except the narrowest (DM1).

The second largest positive contributor to growth was demand deposits (sweeps adjusted), contributing an increase of 1.8% in the last 12 months ending April 2013. Their growth-rate weight was 8.5%. Unweighted, they increased 23.3% in the last 12 months. This component is included in all of the aggregates.

The third largest positive contributor to growth was T-bills, contributing an increase of 0.5% in the last 12 months ending April 2013. Their growth-rate weight was 9.3%. Unweighted, they increased 5.4% in the last 12 months. This component is included only in the broadest aggregate (DM4).

**Components That Are Pulling CFS Divisia M4 Down**

The largest negative contributor to CFS Divisia M4 growth was commercial banks' small time deposits, contributing a decrease of 0.5% in the last 12 months ending April 2013. Their growth-rate weight was 2.6%. Unweighted, they decreased 17.7% in the last 12 months. This component is included in all of the aggregates, except the narrowest (DM1).

The second largest negative contributor to CFS Divisia M4 growth was repurchase agreements, contributing a decrease of 0.2% in the last 12 months ending April 2013. Their growth-rate weight was 9.4%. Unweighted, they decreased 1.8% in the last 12 months. This component is included in DM3, DM4-, and DM4, but not in the narrower aggregates (DM1 and DM2).

The third largest negative contributor to CFS Divisia M4 growth was thrifts' small time deposits, contributing a decrease of 0.2% in the last 12 months ending April 2013. Their growth-rate weight was 0.9%. Unweighted, they decreased 19.3% in the last 12 months. This component is included in all of the aggregates, except the narrowest (DM1).



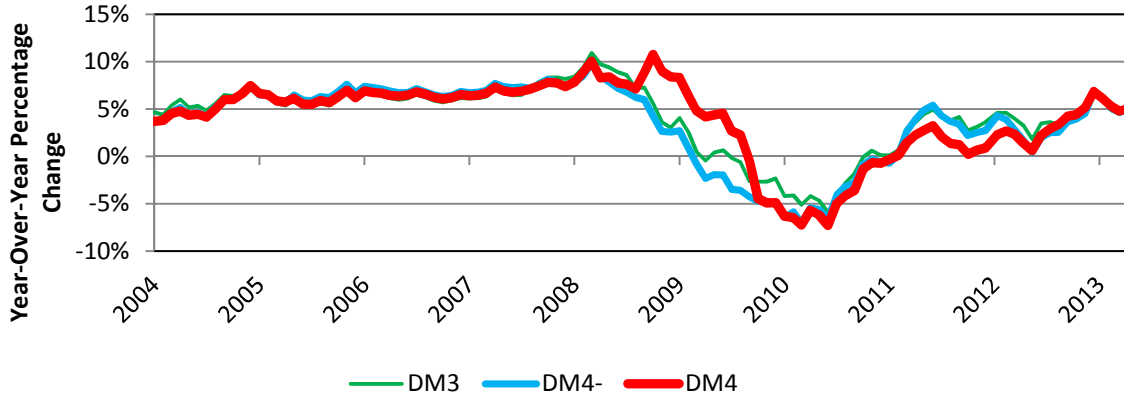
# CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

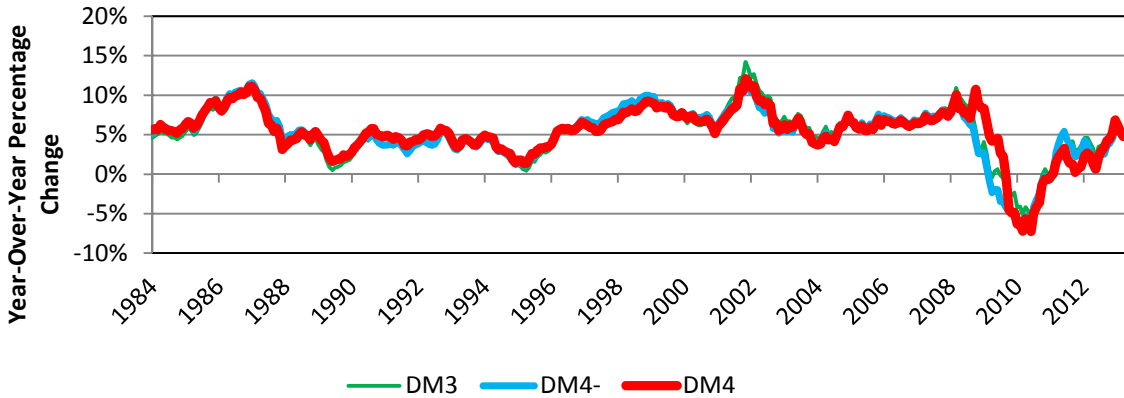
**Figure 7 - CFS Divisia Monetary Growth Charts**

DM3, DM4-, and DM4 Year-Over-Year Percent Change, Three Date Horizons

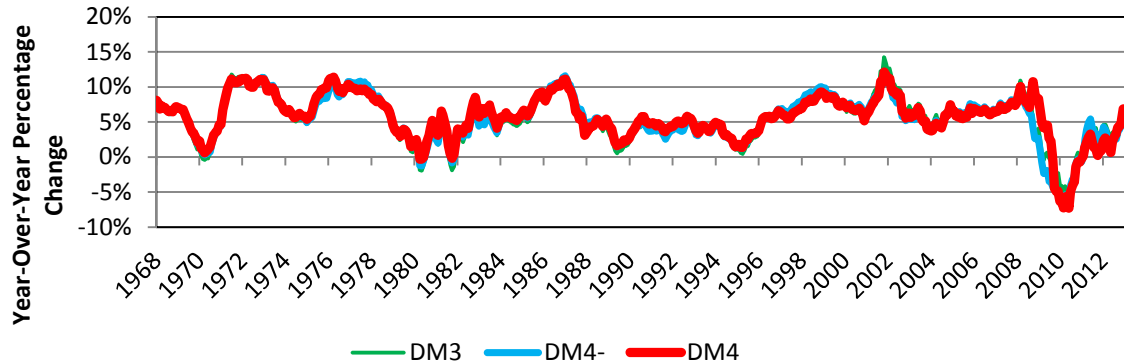
### 2004 to Present



### 1984-Present



### 1968 to Present







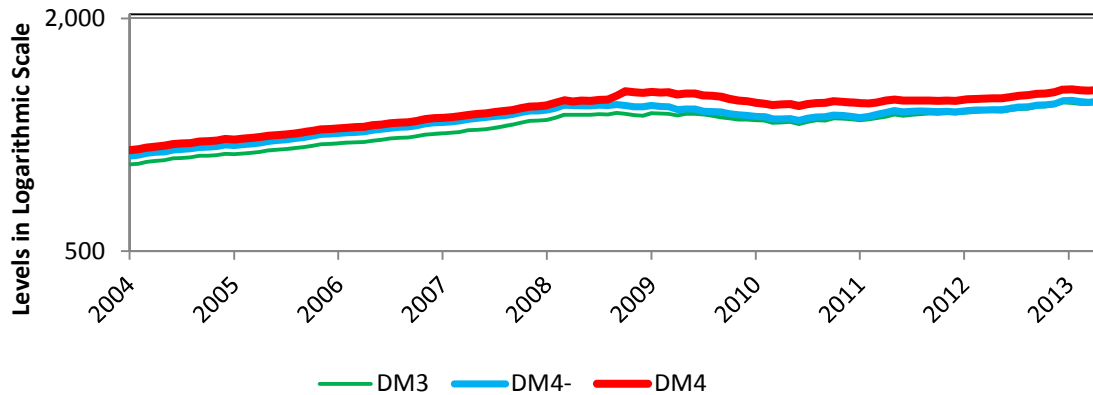
# CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

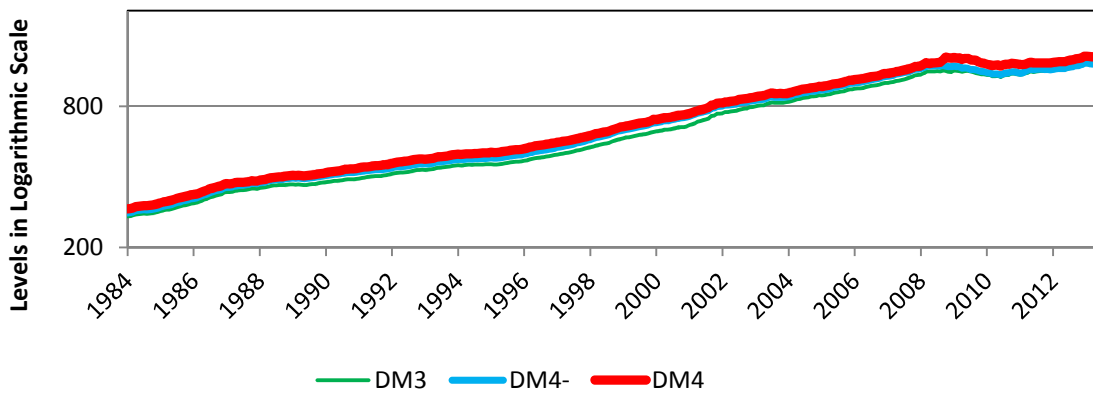
**Figure 8 - CFS Divisia Monetary Aggregates Level Charts**

DM3, DM4-, and DM4 Levels, Normalized to Equal 100 in Jan. 1967, Logarithmic Scales

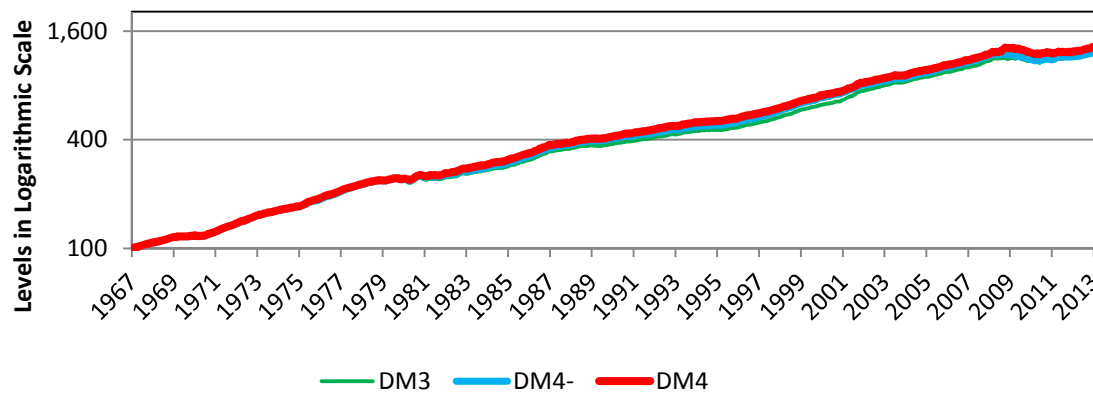
## 2004 to Present



## 1984 to Present



## 1967 to Present





## CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

**Figure 9 - Components of All CFS Divisia Aggregates  
Growth-Rate Weights Used in Latest Month (April 2013)**

	Divisia M1	Divisia M2M	Divisia M2M	Divisia M2	Divisia ALL	Divisia M3	Divisia M4-	Divisia M4
Currency	32.6%	11.5%	9.8%	10.9%	9.3%	7.5%	7.0%	6.4%
Traveler's Checks	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Demand Deposits (Sweeps Adjusted)	45.6%	16.2%	13.7%	15.3%	13.0%	10.5%	9.9%	8.9%
OCDs at Commercial Banks (Sweeps Adjusted)	12.2%	4.3%	3.7%	4.1%	3.5%	2.8%	2.6%	2.4%
OCDs at Thrift Institutions (Sweeps Adjusted)	9.5%	3.4%	2.9%	3.2%	2.7%	2.2%	2.1%	1.9%
Savings Deposits at Commercial Banks (Sweeps Adjusted)		49.7%	42.1%	47.0%	40.1%	32.2%	30.3%	27.5%
Savings Deposits at Thrift Institutions (Sweeps Adjusted)		8.3%	7.0%	7.8%	6.7%	5.4%	5.1%	4.6%
Retail Money-Market Funds		6.6%	5.5%	6.2%	5.3%	4.2%	4.0%	3.6%
Small Time Deposits at Commercial Banks				4.1%	3.5%	2.8%	2.6%	2.4%
Small Time Deposits at Thrifts				1.4%	1.2%	1.0%	0.9%	0.8%
Institutional Money-Market Funds			15.4%		14.6%	11.8%	11.1%	10.0%
Large Time Deposits						9.0%	8.4%	7.6%
Repurchase Agreements						10.7%	10.1%	9.1%
Commercial Paper							5.8%	5.3%
T-Bills								9.3%
<b>Sum of Weights</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

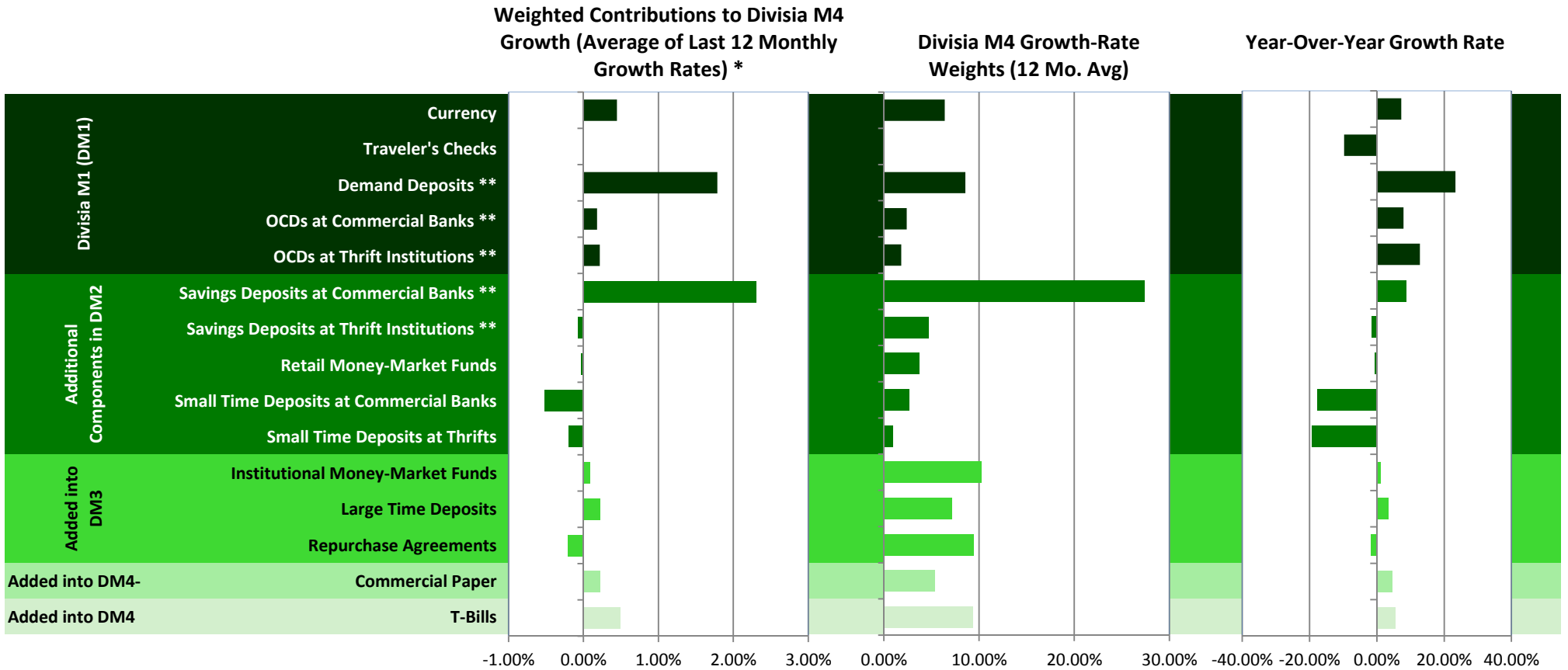
\* Sweeps adjusted.



CENTER FOR FINANCIAL STABILITY

Figure 10 - Components of CFS Divisia M4 - Highlights for April 2013

Note: Each component's influence on DM4 growth (left chart column) reflects the component's unweighted growth (right chart column) and its growth-rate weight (middle chart column). The background and the bar colors are shaded to show which components are included in which aggregates. The lighter the green, the broader the aggregate.



\* Average of last 12 monthly weighted contributions to CFS Divisia M4 growth rates (annual rates). Unlike the other percent calculations in this report, the weighted contributions use continuous percent changes computed from natural logs e.g.  $(\ln(x)-\ln(x-1))$ .

\*\* Sweeps adjusted.



CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

**Figure 16 - CFS Divisia M4 Quarterly Growth Triangle**

Recent Quarterly History (Compound Annual Rates of Change)

This triangular report design was originated by Federal Reserve Bank of St. Louis to show seasonally adjusted annualized growth rates for a variety of time periods.

Terminal Period	Initial Period																			
	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012		Q2 2012	Q3 2012	Q4 2012
Q3 2008	6.2																			1,241.68
Q4 2008	11.2	16.3																		1,289.56
Q1 2009	7.2	7.7	-0.3																	1,288.50
Q2 2009	4.4	3.7	-2.0	-3.7																1,276.40
Q3 2009	2.4	1.5	-3.0	-4.4	-5.1															1,259.95
Q4 2009	0.3	-0.9	-4.7	-6.2	-7.4	-9.7														1,228.31
Q1 2010	-1.0	-2.1	-5.4	-6.7	-7.6	-8.9	-8.1													1,202.69
Q2 2010	-1.2	-2.2	-4.9	-5.8	-6.4	-6.8	-5.3	-2.5												1,195.01
Q3 2010	-0.6	-1.4	-3.7	-4.3	-4.4	-4.2	-2.3	0.7	4.0											1,206.70
Q4 2010	-0.2	-0.9	-2.8	-3.2	-3.1	-2.7	-0.9	1.6	3.8	3.5										1,217.24
Q1 2011	-0.5	-1.1	-2.9	-3.2	-3.1	-2.8	-1.3	0.4	1.4	0.2	-3.1									1,207.67
Q2 2011	0.1	-0.4	-1.9	-2.1	-1.9	-1.5	0.0	1.7	2.8	2.4	1.8	6.9								1,227.93
Q3 2011	0.1	-0.4	-1.8	-2.0	-1.8	-1.4	-0.1	1.3	2.0	1.6	0.9	3.0	-0.7							1,225.65
Q4 2011	0.0	-0.4	-1.7	-1.8	-1.6	-1.3	-0.1	1.0	1.6	1.2	0.6	1.9	-0.5	-0.3						1,224.68
Q1 2012	0.3	-0.1	-1.3	-1.3	-1.1	-0.7	0.3	1.4	2.0	1.7	1.3	2.5	1.0	1.9	4.2					1,237.32
Q2 2012	0.5	0.1	-1.0	-1.0	-0.8	-0.4	0.6	1.6	2.1	1.8	1.5	2.5	1.4	2.1	3.4	2.6				1,245.34
Q3 2012	0.9	0.5	-0.4	-0.4	-0.2	0.2	1.2	2.2	2.7	2.5	2.4	3.3	2.6	3.5	4.8	5.1	7.7			1,268.52
Q4 2012	1.2	0.9	0.0	0.1	0.3	0.8	1.7	2.6	3.2	3.1	3.0	3.9	3.4	4.3	5.5	5.9	7.6	7.5		1,291.72
Q1 2013	1.4	1.1	0.3	0.3	0.6	1.0	1.9	2.7	3.2	3.2	3.1	3.9	3.5	4.2	5.2	5.4	6.4	5.7	4.0	1,304.31

**How to Read this Table:**

To find a growth rate for a particular date range, find the column that contains the start quarter; then find the row that contains the end quarter of the date range. The cell where they intersect represents the annualized growth rate for that time period. For example, the last row contains the growth rates ending in the most recent quarter for each starting quarter going back 4 3/4 years. The outer diagonal shows the growth rates that are the quarter-over-quarter rates for the last few years. Red and green shades highlight the largest negative and positive growth rates.

**Quarterly Data Highlights:**

- In the last quarter, CFS Divisia M4 grew by 4.0% (seasonally adjusted annual rate).
- In the last year, CFS Divisia M4 grew by 5.4% (seasonally adjusted annual rate).
- In the last 2 years, CFS Divisia M4 grew by 3.9% (seasonally adjusted annual rate).
- In the last 3 years, CFS Divisia M4 grew by 2.7% (seasonally adjusted annual rate).
- In the last 4 years, CFS Divisia M4 grew by 0.3% (seasonally adjusted annual rate).



# CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

**Figure 11 - Components of CFS Divisia M4 (Asset Levels in Billions of Dollars)**

	Divisia M1 (DM1)					Additional Components in DM2					Additional Components in DM3			Added into DM4-	Added into DM4
	Currency	Traveler's Checks	Demand Deposits *	OCDs at Commercial Banks *	OCDs at Thrift Institutions *	Savings Deposits at Commercial Banks *	Savings Deposits at Thrift Institutions *	Retail Money-Market Funds	Small Time Deposits at Commercial Banks	Small Time Deposits at Thrifts	Institutional Money-Market Funds	Large Time Deposits	Repurchase Agreements	Commercial Paper	T-Bills
Mar-11	938	5	1,006	437	308	3,845	816	662	624	260	1,847	1,733	1,842	1,076	1,620
Apr-11	947	5	1,019	423	312	3,896	818	657	615	257	1,876	1,754	1,852	1,168	1,614
May-11	957	5	1,051	426	304	3,914	829	656	604	254	1,896	1,786	1,917	1,175	1,564
Jun-11	964	5	1,059	428	300	3,994	831	658	593	251	1,873	1,741	1,789	1,171	1,550
Jul-11	970	5	1,108	420	298	4,136	842	659	582	247	1,838	1,666	1,790	1,138	1,518
Aug-11	977	4	1,229	410	295	4,240	850	673	570	243	1,747	1,556	1,815	1,091	1,478
Sep-11	983	4	1,237	407	296	4,276	852	668	559	239	1,768	1,555	1,801	1,029	1,496
Oct-11	987	4	1,258	400	297	4,292	856	673	550	235	1,765	1,533	1,769	1,019	1,514
Nov-11	995	4	1,265	404	296	4,336	864	667	542	231	1,758	1,504	1,791	993	1,512
Dec-11	1,002	4	1,259	402	297	4,378	869	662	537	228	1,763	1,493	1,754	938	1,540
Jan-12	1,011	4	1,291	400	301	4,425	868	657	534	222	1,760	1,482	1,758	976	1,576
Feb-12	1,019	4	1,293	401	304	4,483	852	646	533	213	1,747	1,479	1,805	964	1,565
Mar-12	1,027	4	1,288	402	307	4,522	861	640	525	208	1,751	1,473	1,809	937	1,584
Apr-12	1,034	4	1,285	391	301	4,582	873	638	516	205	1,739	1,471	1,786	951	1,592
May-12	1,040	4	1,291	392	301	4,615	884	634	507	203	1,735	1,459	1,722	971	1,600
Jun-12	1,046	4	1,297	383	301	4,671	889	631	499	200	1,727	1,473	1,796	966	1,619
Jul-12	1,053	4	1,374	405	313	4,659	890	628	492	196	1,730	1,497	1,786	1,000	1,618
Aug-12	1,060	4	1,406	405	315	4,699	894	625	485	193	1,742	1,498	1,726	997	1,649
Sep-12	1,069	4	1,446	403	319	4,735	893	625	478	189	1,751	1,495	1,814	976	1,648
Oct-12	1,078	4	1,494	408	318	4,767	897	625	470	186	1,742	1,483	1,758	968	1,658
Nov-12	1,083	4	1,471	398	318	4,923	829	630	464	179	1,735	1,482	1,819	984	1,681
Dec-12	1,091	4	1,504	411	324	4,971	833	640	455	176	1,743	1,516	1,943	1,010	1,653
Jan-13	1,098	4	1,513	424	333	4,958	846	652	446	176	1,771	1,530	1,815	1,081	1,656
Feb-13	1,099	4	1,535	420	333	4,938	850	636	437	173	1,768	1,546	1,737	1,045	1,684
Mar-13	1,103	4	1,508	413	337	5,000	862	634	431	169	1,755	1,541	1,713	998	1,685
Apr-13	1,109	4	1,585	422	340	4,982	860	634	425	166	1,756	1,520	1,753	994	1,677

Note: Four components are not included, because they ended in Aug. '91 (MMDAs at commercial banks, MMDAs at thrifts, savings deposits at commercial banks excluding MMDAs, savings deposits at thrifts excluding MMDAs).

\*Sweeps adjusted.



# CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

**Figure 12 - Components of CFS Divisia M4 (Year-Over-Year Growth Rates)**

	Divisia M1 (DM1)					Additional Components in DM2					Additional Components in DM3			Added into DM4-	Added into DM4
	Currency	Traveler's Checks	Demand Deposits *	OCDs at Commercial Banks *	OCDs at Thrift Institutions *	Savings Deposits at Commercial Banks *	Savings Deposits at Thrift Institutions *	Retail Money-Market Funds	Small Time Deposits at Commercial Banks	Small Time Deposits at Thrifts	Institutional Money-Market Funds	Large Time Deposits	Repurchase Agreements	Commercial Paper	T-Bills
Mar-11	7.6%	-8.0%	14.7%	-4.8%	3.6%	13.2%	11.9%	-9.2%	-22.5%	-15.3%	-11.1%	-5.3%	18.6%	-1.5%	-8.5%
Apr-11	8.2%	-6.1%	15.1%	-0.6%	1.6%	12.5%	11.6%	-8.2%	-22.2%	-14.9%	-5.8%	-1.7%	10.9%	8.3%	-11.4%
May-11	8.7%	-6.1%	18.1%	-0.6%	-0.6%	11.6%	11.7%	-8.2%	-22.0%	-14.6%	-2.4%	3.3%	8.3%	11.2%	-14.5%
Jun-11	9.1%	-6.3%	17.2%	-2.1%	0.1%	13.3%	11.1%	-8.1%	-22.0%	-14.5%	-2.3%	0.9%	11.7%	12.4%	-14.4%
Jul-11	9.3%	-6.3%	24.8%	-3.9%	-1.7%	16.3%	11.0%	-7.2%	-22.1%	-14.7%	-4.4%	-5.1%	2.0%	6.8%	-16.1%
Aug-11	9.4%	-6.4%	34.7%	-6.0%	-2.2%	18.0%	11.1%	-3.7%	-22.2%	-15.3%	-9.6%	-11.8%	0.5%	2.5%	-17.8%
Sep-11	9.2%	-6.4%	34.9%	-8.4%	-1.7%	17.4%	10.8%	-3.6%	-21.7%	-15.4%	-8.8%	-11.7%	3.2%	-6.8%	-16.6%
Oct-11	8.7%	-6.4%	36.1%	-9.4%	-2.8%	16.2%	10.3%	-2.1%	-20.7%	-15.7%	-8.4%	-13.1%	-6.1%	-5.4%	-16.2%
Nov-11	8.7%	-8.5%	32.5%	-10.9%	-1.4%	16.7%	10.6%	-2.0%	-19.6%	-15.8%	-8.6%	-14.2%	-3.0%	-5.8%	-15.0%
Dec-11	9.0%	-8.5%	30.7%	-10.4%	-1.9%	16.5%	10.4%	-1.8%	-18.2%	-15.6%	-6.9%	-13.5%	-2.4%	-9.6%	-14.4%
Jan-12	9.4%	-10.6%	31.7%	-9.3%	-2.4%	17.3%	9.7%	-2.0%	-17.1%	-16.3%	-4.7%	-13.7%	-0.3%	-0.2%	-14.1%
Feb-12	9.6%	-8.7%	29.4%	-8.3%	-1.1%	17.6%	6.0%	-2.8%	-16.0%	-18.9%	-4.3%	-14.0%	0.7%	-6.5%	-7.9%
Mar-12	9.6%	-10.9%	28.0%	-8.0%	-0.4%	17.6%	5.5%	-3.3%	-15.8%	-20.1%	-5.2%	-15.0%	-1.7%	-12.9%	-2.2%
Apr-12	9.2%	-10.9%	26.1%	-7.7%	-3.4%	17.6%	6.7%	-3.0%	-16.1%	-20.1%	-7.3%	-16.1%	-3.6%	-18.6%	-1.4%
May-12	8.7%	-13.0%	22.8%	-8.2%	-1.0%	17.9%	6.7%	-3.3%	-16.1%	-20.3%	-8.5%	-18.3%	-10.2%	-17.4%	2.3%
Jun-12	8.5%	-11.1%	22.5%	-10.3%	0.3%	17.0%	7.0%	-4.2%	-15.9%	-20.1%	-7.8%	-15.4%	0.4%	-17.5%	4.5%
Jul-12	8.5%	-11.1%	24.1%	-3.7%	5.0%	12.6%	5.7%	-4.8%	-15.5%	-20.5%	-5.9%	-10.1%	-0.2%	-12.1%	6.6%
Aug-12	8.5%	-11.4%	14.4%	-1.2%	6.7%	10.8%	5.2%	-7.2%	-14.9%	-20.4%	-0.3%	-3.7%	-4.9%	-8.7%	11.5%
Sep-12	8.8%	-11.4%	16.9%	-0.9%	7.7%	10.7%	4.8%	-6.5%	-14.5%	-20.7%	-1.0%	-3.8%	0.7%	-5.1%	10.1%
Oct-12	9.2%	-11.4%	18.8%	2.0%	7.2%	11.1%	4.8%	-7.0%	-14.6%	-20.8%	-1.3%	-3.3%	-0.6%	-5.0%	9.5%
Nov-12	8.9%	-9.3%	16.3%	-1.4%	7.3%	13.5%	-4.1%	-5.5%	-14.4%	-22.4%	-1.3%	-1.5%	1.5%	-0.9%	11.2%
Dec-12	8.9%	-11.6%	19.4%	2.2%	9.1%	13.6%	-4.1%	-3.3%	-15.3%	-22.8%	-1.1%	1.5%	10.8%	7.7%	7.3%
Jan-13	8.6%	-9.5%	17.2%	6.2%	10.7%	12.0%	-2.6%	-0.8%	-16.5%	-20.9%	0.6%	3.3%	3.3%	10.7%	5.0%
Feb-13	7.8%	-9.5%	18.8%	4.6%	9.5%	10.1%	-0.2%	-1.6%	-17.9%	-18.7%	1.2%	4.5%	-3.8%	8.4%	7.6%
Mar-13	7.3%	-7.3%	17.0%	2.8%	9.9%	10.6%	0.1%	-0.9%	-17.8%	-18.7%	0.2%	4.6%	-5.3%	6.6%	6.3%
Apr-13	7.3%	-9.8%	23.3%	7.9%	12.8%	8.7%	-1.5%	-0.6%	-17.7%	-19.3%	1.0%	3.3%	-1.8%	4.5%	5.4%

Note: Four components are not included, because they ended in Aug. '91 (MMDAs at commercial banks, MMDAs at thrifts, savings deposits at commercial banks excluding MMDAs, savings deposits at thrifts excluding MMDAs).

\*Sweeps adjusted.



# CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

**Figure 13 - CFS Divisia M4 Growth-Rate Weights (Based on Average of Contemporaneous and Previous Months)**

	Divisia M1 (DM1)					Additional Components in DM2					Additional Components in DM3			Added into DM4-	Added into DM4
	Currency	Traveler's Checks	Demand Deposits *	OCDs at Commercial Banks *	OCDs at Thrift Institutions *	Savings Deposits at Commercial Banks *	Savings Deposits at Thrift Institutions *	Retail Money-Market Funds	Small Time Deposits at Commercial Banks	Small Time Deposits at Thrifts	Institutional Money-Market Funds	Large Time Deposits	Repurchase Agreements	Commercial Paper	T-Bills
Mar-11	5.9%	0.0%	6.3%	2.7%	1.8%	23.2%	4.4%	4.1%	3.6%	1.3%	11.4%	8.9%	10.6%	5.9%	9.9%
Apr-11	5.9%	0.0%	6.3%	2.6%	1.8%	23.1%	4.4%	4.0%	3.5%	1.3%	11.4%	9.0%	10.9%	6.2%	9.6%
May-11	5.8%	0.0%	6.3%	2.5%	1.8%	22.9%	4.4%	4.0%	3.4%	1.3%	11.4%	9.1%	11.1%	6.4%	9.5%
Jun-11	5.9%	0.0%	6.4%	2.6%	1.7%	23.2%	4.4%	4.0%	3.3%	1.2%	11.4%	9.1%	10.9%	6.5%	9.3%
Jul-11	5.9%	0.0%	6.6%	2.5%	1.7%	24.0%	4.5%	4.0%	3.3%	1.2%	11.2%	8.7%	10.7%	6.5%	9.2%
Aug-11	6.0%	0.0%	7.1%	2.5%	1.7%	24.7%	4.5%	4.0%	3.3%	1.2%	10.9%	8.0%	10.7%	6.2%	9.0%
Sep-11	6.0%	0.0%	7.6%	2.5%	1.7%	25.3%	4.6%	4.1%	3.2%	1.2%	10.7%	7.5%	10.6%	5.8%	9.1%
Oct-11	6.1%	0.0%	7.7%	2.5%	1.7%	25.5%	4.7%	4.1%	3.2%	1.2%	10.8%	7.2%	10.5%	5.6%	9.2%
Nov-11	6.1%	0.0%	7.8%	2.5%	1.7%	25.8%	4.7%	4.1%	3.1%	1.2%	10.8%	6.8%	10.4%	5.5%	9.3%
Dec-11	6.2%	0.0%	7.8%	2.5%	1.8%	26.1%	4.8%	4.1%	3.1%	1.2%	10.8%	6.3%	10.5%	5.4%	9.4%
Jan-12	6.2%	0.0%	7.9%	2.4%	1.8%	26.3%	4.8%	4.0%	3.1%	1.2%	10.8%	6.3%	10.3%	5.3%	9.5%
Feb-12	6.2%	0.0%	7.9%	2.4%	1.8%	26.5%	4.8%	4.0%	3.1%	1.1%	10.7%	6.7%	10.2%	5.3%	9.4%
Mar-12	6.3%	0.0%	7.9%	2.4%	1.8%	26.6%	4.8%	3.9%	3.1%	1.1%	10.6%	6.8%	10.2%	5.3%	9.3%
Apr-12	6.4%	0.0%	8.0%	2.4%	1.8%	26.9%	4.8%	3.9%	3.0%	1.0%	10.6%	6.7%	9.9%	5.2%	9.4%
May-12	6.5%	0.0%	8.0%	2.4%	1.8%	27.2%	4.9%	3.9%	2.9%	1.0%	10.6%	6.5%	9.6%	5.2%	9.4%
Jun-12	6.5%	0.0%	8.0%	2.4%	1.8%	27.4%	4.9%	3.9%	2.9%	1.0%	10.6%	6.4%	9.5%	5.3%	9.4%
Jul-12	6.4%	0.0%	8.2%	2.4%	1.8%	27.3%	4.9%	3.8%	2.8%	1.0%	10.4%	6.7%	9.6%	5.3%	9.4%
Aug-12	6.4%	0.0%	8.4%	2.4%	1.8%	27.1%	4.9%	3.7%	2.8%	1.0%	10.3%	7.0%	9.5%	5.3%	9.3%
Sep-12	6.4%	0.0%	8.5%	2.4%	1.8%	27.2%	4.9%	3.7%	2.7%	1.0%	10.3%	7.2%	9.3%	5.3%	9.3%
Oct-12	6.4%	0.0%	8.8%	2.4%	1.8%	27.3%	4.9%	3.7%	2.7%	1.0%	10.3%	7.2%	9.1%	5.2%	9.3%
Nov-12	6.4%	0.0%	8.8%	2.4%	1.8%	27.7%	4.7%	3.7%	2.6%	0.9%	10.2%	7.2%	9.1%	5.2%	9.4%
Dec-12	6.3%	0.0%	8.7%	2.3%	1.8%	27.9%	4.4%	3.7%	2.6%	0.9%	10.0%	7.2%	9.6%	5.2%	9.3%
Jan-13	6.3%	0.0%	8.7%	2.4%	1.8%	27.6%	4.4%	3.7%	2.5%	0.9%	10.0%	7.4%	9.7%	5.5%	9.2%
Feb-13	6.3%	0.0%	8.8%	2.4%	1.8%	27.2%	4.5%	3.7%	2.4%	0.9%	10.1%	7.6%	9.5%	5.6%	9.2%
Mar-13	6.4%	0.0%	8.8%	2.4%	1.8%	27.4%	4.6%	3.6%	2.4%	0.9%	10.1%	7.7%	9.2%	5.5%	9.3%
Apr-13	6.4%	0.0%	8.9%	2.4%	1.9%	27.5%	4.6%	3.6%	2.4%	0.8%	10.0%	7.6%	9.1%	5.3%	9.3%
12 Mo Chg.	0.0%	0.0%	1.0%	0.0%	0.1%	0.6%	-0.2%	-0.3%	-0.6%	-0.2%	-0.6%	1.0%	-0.8%	0.1%	0.0%

Note: The growth-rate Divisia weights are the arithmetic average of the component's contemporaneous expenditure share and the asset's expenditure share for the prior month. The expenditure shares are each component's share in the sum of the products of each component's quantity and user-cost price.

\*Sweeps adjusted.



## CENTER FOR FINANCIAL STABILITY

*Dialog • Insight • Solutions*

**Figure 14 - Weighted Contributions to Divisia M4 Growth (12-Month Moving Average of Monthly Contributions at Annual Rates)**

	Divisia M1 (DM1)					Additional Components in DM2					Additional Components in DM3			Added into DM4-	Added into DM4
	Currency	Traveler's Checks	Demand Deposits *	OCDs at Commercial Banks *	OCDs at Thrift Institutions *	Savings Deposits at Commercial Banks *	Savings Deposits at Thrift Institutions *	Retail Money Market Funds	Small Time Deposits at Commercial Banks	Small Time Deposits at Thrifts	Institutional Money-Market Funds	Large Time Deposits	Repurchase Agreements	Commercial Paper	T-Bills
Mar-11	0.4%	0.0%	0.8%	-0.1%	0.1%	2.7%	0.5%	-0.4%	-1.0%	-0.2%	-1.5%	-0.5%	1.7%	-0.1%	-0.9%
Apr-11	0.5%	0.0%	0.8%	0.0%	0.0%	2.6%	0.5%	-0.4%	-1.0%	-0.2%	-0.7%	-0.2%	1.1%	0.5%	-1.2%
May-11	0.5%	0.0%	1.0%	0.0%	0.0%	2.5%	0.5%	-0.4%	-1.0%	-0.2%	-0.3%	0.3%	0.9%	0.7%	-1.6%
Jun-11	0.5%	0.0%	1.0%	-0.1%	0.0%	2.8%	0.5%	-0.4%	-1.0%	-0.2%	-0.3%	0.0%	1.1%	0.7%	-1.5%
Jul-11	0.5%	0.0%	1.4%	-0.1%	0.0%	3.5%	0.5%	-0.3%	-0.9%	-0.2%	-0.5%	-0.5%	0.2%	0.4%	-1.7%
Aug-11	0.5%	0.0%	2.0%	-0.2%	0.0%	3.9%	0.5%	-0.2%	-0.9%	-0.2%	-1.1%	-1.1%	0.1%	0.1%	-1.9%
Sep-11	0.5%	0.0%	2.0%	-0.2%	0.0%	3.8%	0.5%	-0.2%	-0.9%	-0.2%	-1.0%	-1.0%	0.3%	-0.4%	-1.8%
Oct-11	0.5%	0.0%	2.1%	-0.3%	0.0%	3.6%	0.4%	-0.1%	-0.8%	-0.2%	-1.0%	-1.2%	-0.7%	-0.3%	-1.7%
Nov-11	0.5%	0.0%	1.9%	-0.3%	0.0%	3.7%	0.4%	-0.1%	-0.8%	-0.2%	-1.0%	-1.2%	-0.3%	-0.3%	-1.6%
Dec-11	0.5%	0.0%	1.8%	-0.3%	0.0%	3.7%	0.4%	-0.1%	-0.7%	-0.2%	-0.8%	-1.1%	-0.3%	-0.6%	-1.5%
Jan-12	0.5%	0.0%	1.9%	-0.2%	0.0%	3.9%	0.4%	-0.1%	-0.6%	-0.2%	-0.5%	-1.1%	0.0%	0.0%	-1.5%
Feb-12	0.6%	0.0%	1.8%	-0.2%	0.0%	4.0%	0.3%	-0.1%	-0.6%	-0.3%	-0.5%	-1.2%	0.1%	-0.4%	-0.8%
Mar-12	0.6%	0.0%	1.7%	-0.2%	0.0%	4.0%	0.2%	-0.1%	-0.6%	-0.3%	-0.6%	-1.3%	-0.2%	-0.8%	-0.2%
Apr-12	0.5%	0.0%	1.6%	-0.2%	-0.1%	4.1%	0.3%	-0.1%	-0.6%	-0.3%	-0.8%	-1.4%	-0.4%	-1.2%	-0.1%
May-12	0.5%	0.0%	1.5%	-0.2%	0.0%	4.2%	0.3%	-0.1%	-0.6%	-0.3%	-1.0%	-1.6%	-1.1%	-1.1%	0.2%
Jun-12	0.5%	0.0%	1.5%	-0.3%	0.0%	4.0%	0.3%	-0.2%	-0.5%	-0.3%	-0.9%	-1.3%	0.0%	-1.1%	0.4%
Jul-12	0.5%	0.0%	1.6%	-0.1%	0.1%	3.1%	0.3%	-0.2%	-0.5%	-0.3%	-0.7%	-0.8%	0.0%	-0.8%	0.6%
Aug-12	0.5%	0.0%	1.1%	0.0%	0.1%	2.7%	0.2%	-0.3%	-0.5%	-0.3%	0.0%	-0.3%	-0.5%	-0.5%	1.0%
Sep-12	0.5%	0.0%	1.3%	0.0%	0.1%	2.7%	0.2%	-0.3%	-0.5%	-0.3%	-0.1%	-0.3%	0.0%	-0.3%	0.9%
Oct-12	0.6%	0.0%	1.4%	0.0%	0.1%	2.8%	0.2%	-0.3%	-0.5%	-0.3%	-0.1%	-0.2%	0.0%	-0.3%	0.9%
Nov-12	0.5%	0.0%	1.3%	0.0%	0.1%	3.4%	-0.2%	-0.2%	-0.4%	-0.3%	-0.1%	-0.1%	0.1%	-0.1%	1.0%
Dec-12	0.5%	0.0%	1.5%	0.1%	0.2%	3.5%	-0.2%	-0.1%	-0.5%	-0.3%	-0.1%	0.1%	1.0%	0.4%	0.7%
Jan-13	0.5%	0.0%	1.3%	0.1%	0.2%	3.1%	-0.1%	0.0%	-0.5%	-0.2%	0.1%	0.2%	0.3%	0.5%	0.5%
Feb-13	0.5%	0.0%	1.5%	0.1%	0.2%	2.6%	0.0%	-0.1%	-0.5%	-0.2%	0.1%	0.3%	-0.4%	0.4%	0.7%
Mar-13	0.5%	0.0%	1.3%	0.1%	0.2%	2.8%	0.0%	0.0%	-0.5%	-0.2%	0.0%	0.3%	-0.5%	0.3%	0.6%
Apr-13	0.4%	0.0%	1.8%	0.2%	0.2%	2.3%	-0.1%	0.0%	-0.5%	-0.2%	0.1%	0.2%	-0.2%	0.2%	0.5%

Note: This table shows the contribution of each component over the trailing 12 months. The Divisia index is a chain-weighted calculation, based on growth-rates and weights relative to the prior months. This table shows the 12-month moving average of the monthly contributions. These calculations on this page are based on continuous annual percent changes (using natural logs).

\*Sweeps adjusted.





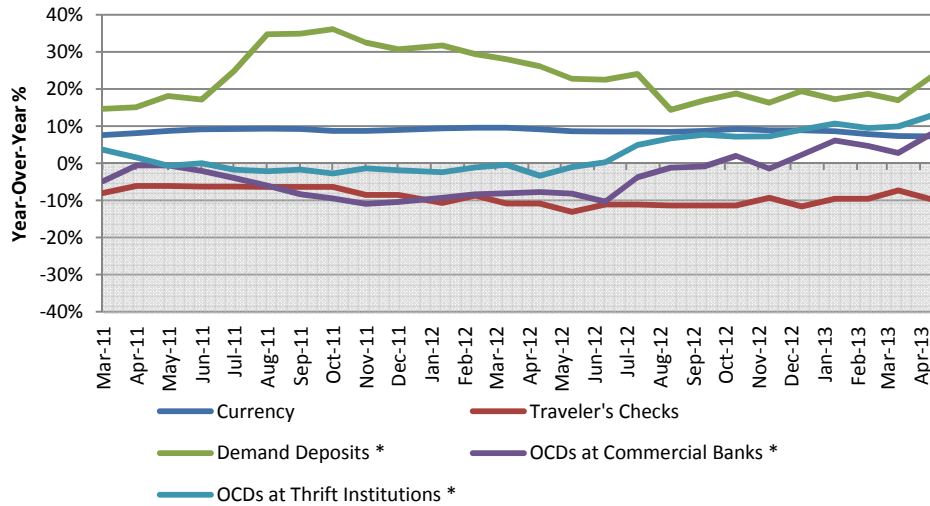
# CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

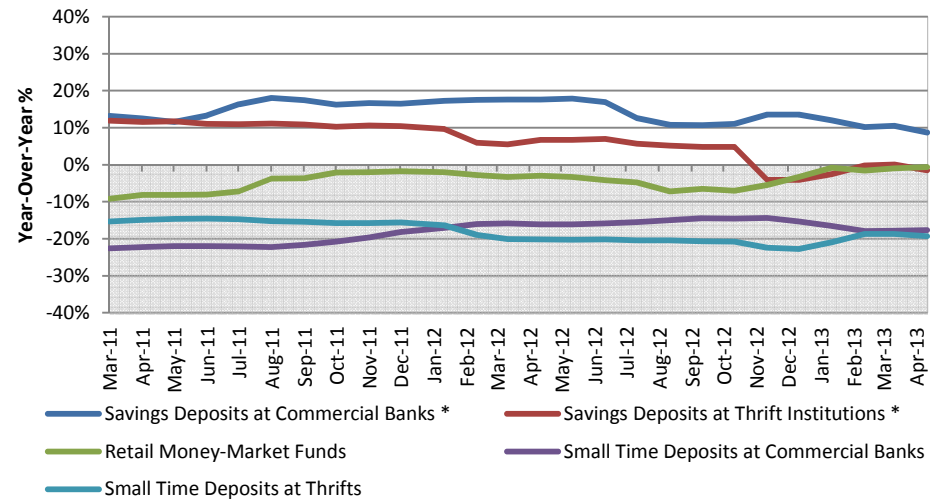
**Figure 15 - Unweighted Components of CFS Divisia M4 (Year-Over-Year Growth Rates)**

All charts share the same vertical axis range for comparison purposes. Gray area highlights negative growth.

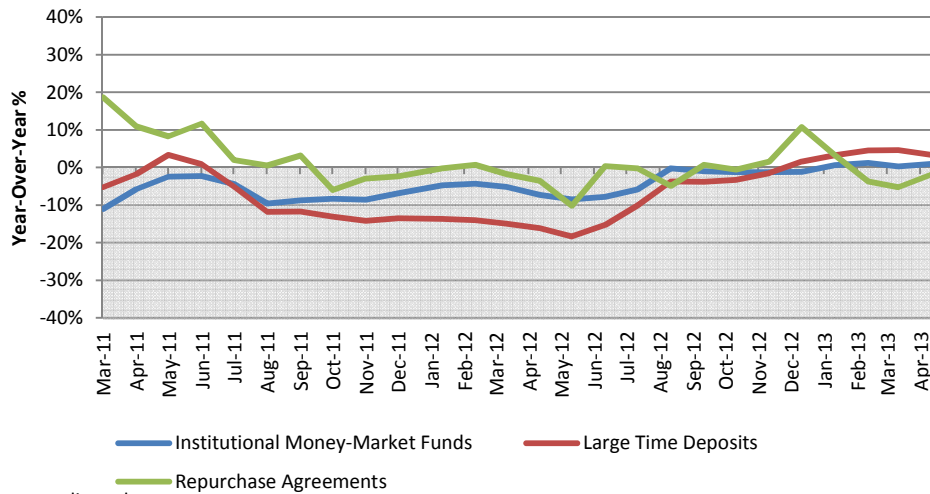
### DM1 Components



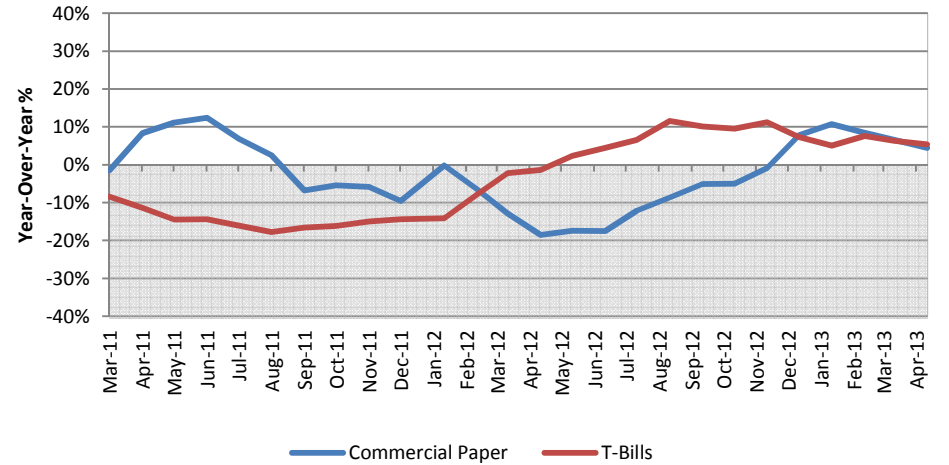
### Additional DM2 Components (That Are Not in DM1)



### Additional DM3 Components (That Are Not in DM2)



### Additional DM4 Components (That Are Not in DM3)



\* Sweeps adjusted.



## CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

### Introduction to CFS Divisia Monetary Aggregates

Conventional money-supply measures are not adjusted to account for differences in the degree to which various assets actually serve as money, and hence implicitly assume that all assets in the aggregates contribute equally to the economy's monetary services. This assumption has not been reasonable since monetary assets began yielding interest over a half century ago. Divisia measures, using a mathematical formula derived by the famous 20th-century French economist, Francois Divisia, are a weighted aggregate, providing a more accurate picture of what is really happening to the economy's monetary service flow. The growth-rate weights for each component asset are based on their expenditure shares, with expenditures within the shares evaluated with user-cost pricing. The user-cost prices measure the interest foregone by owning the asset in question, instead of the higher, expected, benchmark rate, defined to be the rate of return on pure investment capital, providing no monetary services.

When their components are properly weighted, the broadest monetary aggregates (DM3, DM4-, and DM4) are almost always the best monetary aggregates, with DM4 commonly being the most useful of the three. As a result, this report focuses on the broadest, CFS Divisia aggregate (DM4). See W. A. Barnett, "The Optimal Level of Monetary Aggregation," *Journal of Money, Credit, and Banking*, November 1982.<sup>6</sup> But we nevertheless provide the narrower CFS Divisia aggregates for comparison.

The CFS Divisia indexes in this release were developed by Professor William A. Barnett, based on his decades of work studying and refining Divisia measures of money supply, in accordance with the latest advances in economic measurement, modern economic aggregation theory, and state-of-the-art economic index-number theory. The Divisia formula for aggregating over imperfect substitutes was adapted for monetary and financial aggregation by W. A. Barnett in his seminal paper, "Economic Monetary Aggregates: An Application of Index Number and Aggregation Theory," *Journal of Econometrics*, September 1980, pp. 6-10.<sup>7</sup> For more information about the history and methodology in this large literature, see <http://www.centerforfinancialstability.org/amfm.php>.

We consider the St. Louis Fed's MSI (monetary services index) Divisia aggregates to be an admirable and important contribution to public information, and we are indebted to the St. Louis Fed for helping us develop our Divisia monetary aggregates. Our narrowest Divisia monetary aggregates are similar to the St. Louis Fed's MSI Divisia aggregates, which are available only as narrow aggregates. However, we use a different benchmark interest-rate assumption, based on the recently introduced Bank of Israel formula. Since the Divisia quantity-index formula is relatively robust to the benchmark rate,

---

<sup>6</sup> Reprinted in W. A. Barnett and A. Serletis, *The Theory of Monetary Aggregation*, Elsevier, 2000, chapter 7, pp. 125-149. Also see W. A. Barnett, *Getting It Wrong: How Faulty Monetary Statistics Undermine the Fed, the Financial System, and the Economy*, MIT Press, 2012, section 4.4, pp. 143-144.

<sup>7</sup> Reprinted in W. A. Barnett and A. Serletis, *The Theory of Monetary Aggregation*, chapter 2, pp. 11-48. Also see W. A. Barnett, *Getting It Wrong: How Faulty Monetary Statistics Undermine the Fed, the Financial System, and the Economy*, appendix A, pp. 159-215.



## CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

the CFS narrow Divisia quantity indexes can be expected usually to behave similarly to the St. Louis Fed's MSI Divisia aggregates; but the CFS and St. Louis Fed's corresponding user-cost price aggregates behave very differently. For more information about the St. Louis Fed's MSI, see <http://research.stlouisfed.org/msi/> and <http://research.stlouisfed.org/fred2/release?rid=62&soid=4>.

The broad Divisia monetary aggregates, DM3, DM4-, and DM4, are available only from the CFS, since no other source currently exists for broad Divisia monetary aggregates for the US.

### CFS Divisia Resources on the Center for Financial Stability Site

See [www.centerforfinancialstability.org/amfm.php](http://www.centerforfinancialstability.org/amfm.php) for more information about the following topics:

- Introduction to Advances in Monetary and Financial Measurement (Divisia)
- Monetary Data for the US: including methodology, data sources, and key takeaway points
- International Advances in Monetary and Financial Measurement: Divisia and Fisher-ideal monetary aggregates for a vast number of countries throughout the world
- Library: Key articles and books regarding advances in monetary and financial measurement

### About the Center for Financial Stability

The Center for Financial Stability is an independent, nonpartisan, and nonprofit think tank dedicated to financial markets for the benefit of investors, officials, and the public.

CFS balances the big picture and financial market mechanics; serves as a private sector check on government actions; integrates finance, law, and economics; and supplements research with a community of public officials, academics, and market participants.

The organization's website is [www.CenterforFinancialStability.org](http://www.CenterforFinancialStability.org).

### For more information about CFS Divisia please contact:

William A. Barnett	(Methodology)	(212) 626-2660	<a href="mailto:wbarnett@the-cfs.org">wbarnett@the-cfs.org</a>
Lawrence Goodman	(Application)	(212) 626-2660	<a href="mailto:lgoodman@the-cfs.org">lgoodman@the-cfs.org</a>

CFS Divisia Team: Jeff van den Noort (Chief Technology Officer), LeAnn Yee (Manager of Communications), Ryan Mattson (Research Associate), and Jia Liu (Research Associate).

With appreciation to Steve Hanke, Special Counselor at the CFS, for introducing Bill Barnett to the CFS.

---

*The Center for Financial Stability (CFS) is a private, nonprofit institution focusing on global finance and markets. Its research is nonpartisan. This publication reflects the judgments and recommendations of the author(s). They do not necessarily represent the views of members of the CFS Advisory Board or Trustees, whose involvement in no way should be interpreted as an endorsement of the report by either themselves or the organizations with which they are affiliated.*

© Center for Financial Stability 2013. All rights reserved.

1120 Avenue of the Americas, 4th Floor New York, NY 10036 T 212.626.2660 [www.centerforfinancialstability.org](http://www.centerforfinancialstability.org)