Cash Is Dead! Long Live Cash!

An Essay by President and CEO

John C. Williams

FEDERAL RESERVE BANK OF SAN FRANCISCO

2012 ANNUAL REPORT

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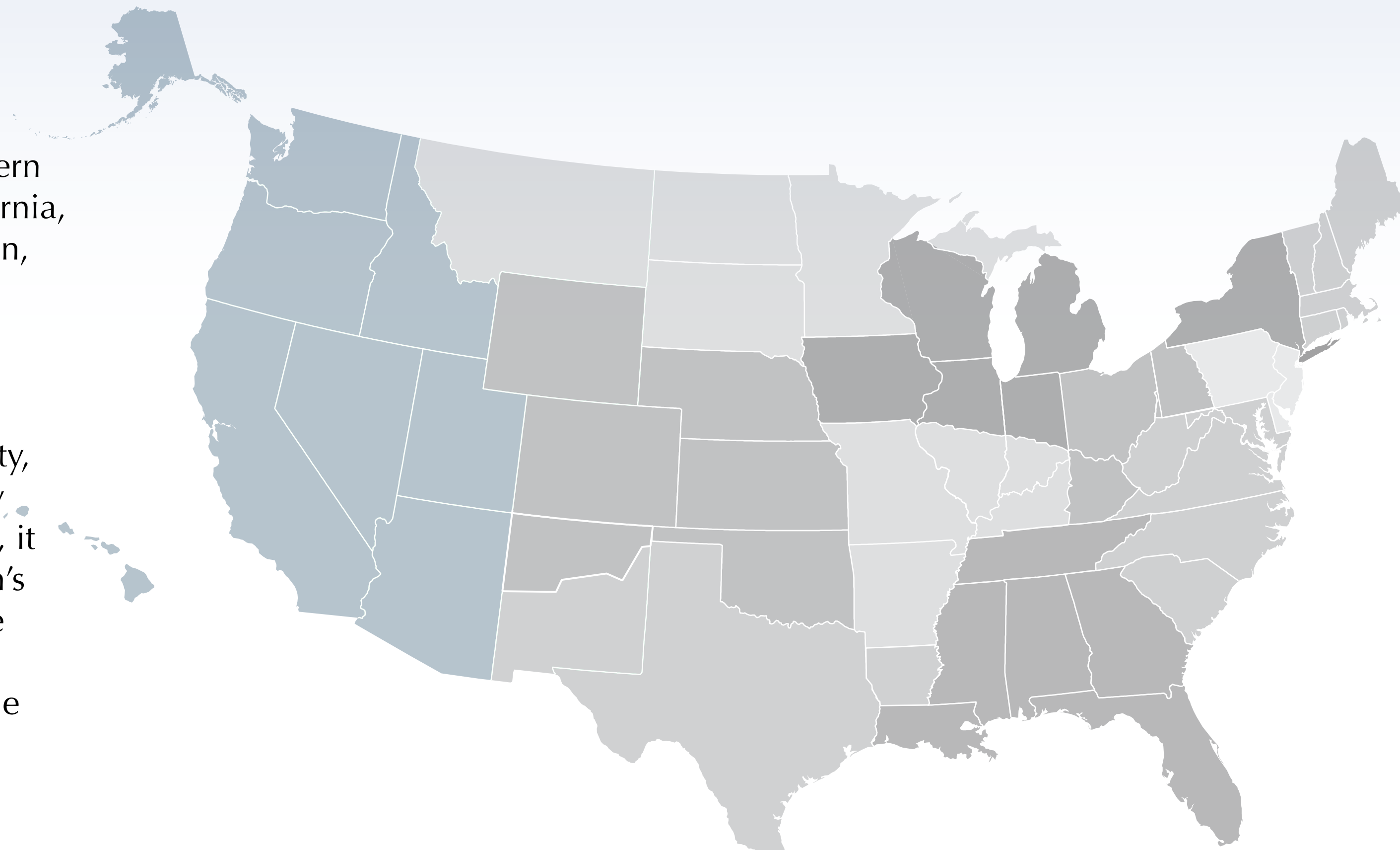
The Federal Reserve Bank of San Francisco is one of twelve regional Federal Reserve Banks across the United States that, together with the Board of Governors in Washington, D.C., serve as our nation's central bank.

The Twelfth Federal Reserve District includes the nine western states—Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Utah, and Washington—and American Samoa, Guam, and the Northern Mariana Islands. Branches are located in Los Angeles, Portland, Salt Lake City, and Seattle, with a cash facility in Phoenix. The largest District, it covers 35 percent of the nation's landmass, ranks first in the size of its economy, and is home to approximately 20 percent of the nation's population.



President's Letter

Welcome to the 2012 Annual Report of the Federal Reserve Bank of San Francisco. The report plays a special role at our institution. Once every year, it gives us an opportunity to describe our work to the public, consider vital questions about the economy, and explore timely and interesting topics related to the Federal Reserve's unique place in our nation's economic life.

This year, we've chosen to highlight the fascinating subject of cash. Our society is at an important juncture when it comes to the use of paper currency. The public is enthusiastically embracing alternative payment methods, including emerging digital technologies that might have seemed like science fiction a generation ago. At the same time, cash continues to hold its place in the economy and the amount in circulation is actually growing, as this year's essay explains.

The Federal Reserve is responsible for supplying currency and coin to the banking system. This is a vast operation for the 12 Reserve Banks that comprise the Federal Reserve System. So what the future holds for the greenback is a critical question for the Fed, and not a simple one to answer. The San Francisco Fed is a leader in the area of cash management in the Federal Reserve. In fact, the Fed's National Cash Product Office is located in our Bank. The office coordinates Federal Reserve cash services and also serves as an in-house think tank, carrying out research, setting strategy, and planning for the future of the Fed's cash operations. I hope this Annual Report conveys a sense of what an interesting and important area of work this is.

I noted above that the amount of cash in circulation continues to grow. One reason is that our nation's economy is also expanding. The harsh recession of 2007-09 ended almost four years ago, and the economy has been on the upswing since. But the recovery has lacked the vigor of previous expansions, and the elevated unemployment rate has declined all too slowly. That's a national tragedy that's caused hardship for millions of Americans and their families.

There are a number of reasons why the recovery has been lackluster, including cutbacks at all levels of government, economic turmoil overseas, and unusually high levels of business and consumer uncertainty. The good news is that the economy seems to be gradually building a bit of steam, both nationwide and in the nine states of the Twelfth Federal Reserve District. For example, motor vehicle sales have rebounded impressively. The housing market has also returned to life, something especially welcome given the devastation the market's collapse wreaked a few years ago.

What is appropriate monetary policy in this situation? When we consider the moderate pace of recovery and the deep hole the economy is still climbing out of, it's clear that powerful monetary stimulus remains essential. The Federal Open Market Committee

(FOMC), the Fed's policymaking body, said it intended to keep the Fed's benchmark interest rate exceptionally low, at least until several economic thresholds are reached, including the unemployment rate falling to 6.5%. The FOMC said it anticipates inflation will likely run at or below its 2% objective over the medium term. In addition, the FOMC said it expects to keep unconventional forms of stimulus in place, including purchases of longer-term Treasury and mortgage-related securities, until the outlook for the labor market shows evidence of substantial improvement.

I have no doubt these policies have helped fuel the recovery. In particular, they've helped keep interest rates across the board exceptionally low, and that's allowed millions of people to afford mortgages so they could buy homes or get financing for other major purchases.

Staff in all areas of the Bank demonstrated outstanding commitment to their work and the public in 2012. A few examples illustrate the breadth of activities. Supervisory staff worked hard to help financial institutions put in place changes required under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, also known as the Dodd-Frank Act. Staff in our Cash Product Office made significant progress in a multi-year initiative to update the Fed's cash technology infrastructure to meet future demand. As part of our ongoing efforts to promote economic stability in hard-hit regions in our District, staff in our Community Development department organized more than 140 events addressing areas such as affordable housing, foreclosure mitigation, asset building, and other topics. And the Bank's Procurement area, with support from the Office of Minority Women and Inclusion, moved forward with its Supplier Diversity Program, which gives women- and minority-owned businesses greater opportunity to do business with the San Francisco Fed.

I would like to sincerely thank our employees for the important work they do for the public. I also would like to extend my thanks and appreciation to our Twelfth District directors and advisory council members for their service and counsel over the past year. Their independent assessment of economic and financial conditions in our nine-state region was invaluable. It allowed me to hear first-hand what the economy looked like to people in towns, cities, and rural areas across our District, information essential to making good monetary policy decisions.

In particular, I would like to acknowledge the contributions made by Douglas W. Shorenstein, chairman and chief executive officer, Shorenstein Properties LLC. Mr. Shorenstein completed nearly six years of service to the San Francisco Fed, the last two as its chairman. I would also like to acknowledge the following individuals who completed their service on the Head Office Board at the end of 2012: William D. Jones, president, and chief executive officer, City Scene Management Company, San Diego, California, who completed five years of service as a director; Blake W. Nordstrom, president, Nordstrom, Inc., Seattle, Washington, who completed six years as a Head Office director and two years as a Seattle Branch director; and Kenneth P. Wilcox, chairman, Silicon Valley Bank, Santa Clara, California, who completed seven years of service.

Finally, I would like to express my sincere thanks and appreciation to the other directors and advisory council members who concluded their terms of service during 2012:

- **on the Los Angeles Branch board:** Joseph C. Berenato, director and former chairman of the board, Ducommun Incorporated, Carson, California; and Andrew J. Sale, partner, Americas Automobile Leader, Ernst & Young LLP, Los Angeles, California, who served as chairman of the Los Angeles Branch board for two years;
- **on the Portland Branch board:** David Y. Chen, chief executive officer, Equilibrium Capital Group LLC, Portland, Oregon, who served as chairman of the Portland Branch board for two years;
- **on the Salt Lake City Branch board:** Carol Carter, president and chief executive officer, Industrial Compressor Products, Inc., Park City, Utah;
- **on the Seattle Branch board:** Henry L. (Skip) Kotkins, Jr., chairman and chief executive officer, SWL Holdings, Inc., Seattle, Washington, who previously served two years on the Economic Advisory Council;
- **on the Twelfth District Economic Advisory Council:** Mary F. Kaiser, president, California Community Reinvestment Corporation, Glendale, California. Ms. Kaiser completed six years of service on this council including serving as vice chair and chair; and Kim Roberts Hedgpeth, former co-national executive director, Screen Actors Guild – American Federation of Radio and Television Artists, Los Angles, California; and
- **on the Twelfth District Community Depository Institutions Advisory Council:** Ronald A. Barrick, president and chief executive officer, Advantis Credit Union, Milwaukee, Oregon, who completed two years of service as a member and vice chair; and William E. Castle, president and chief executive officer, South Valley Bank & Trust, Klamath Falls, Oregon.

John C. Williams

John C. Williams
President and Chief Executive Officer

Cash Is Dead! Long Live Cash!

By President and CEO John C. Williams

It is often said that cash is king. But a quick glance at the register in stores and restaurants might make you think the king is on his deathbed. Increasingly, customers are finding other ways to pay for things, whether it's credit, debit, or gift cards, or even mobile phones. At home, they use their computers to make payments from their bank or credit accounts, or turn to popular services such as PayPal. So it's easy to find commentators who blithely declare that we are on the cusp of a cashless society in which everything is paid for with the swipe of a card or the tap of a phone. Cash, they tell us, is doomed to go the way of the dinosaurs.

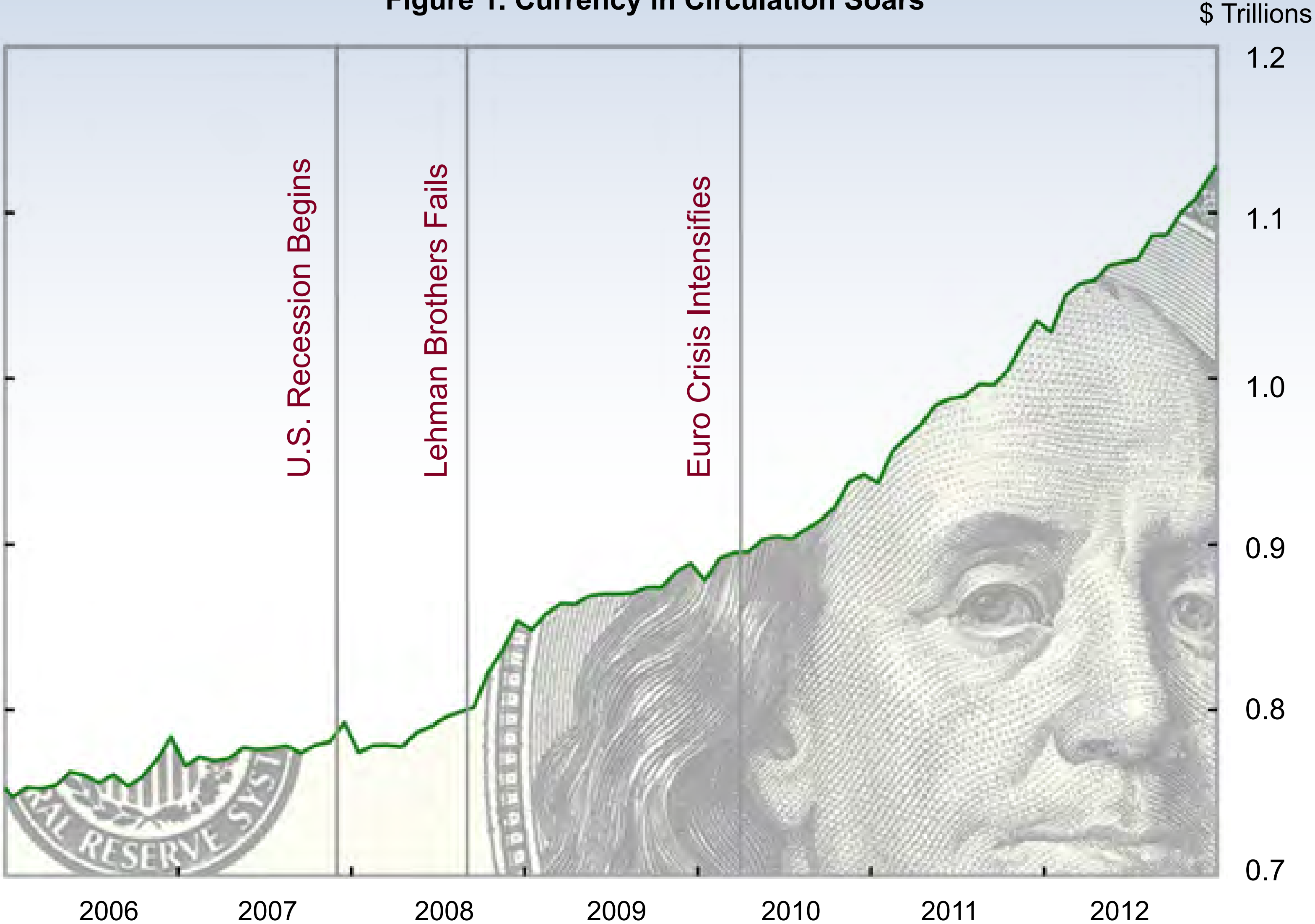
Yet, to paraphrase Mark Twain, reports of the demise of cash are greatly exaggerated. In fact, they are plain wrong. It's undeniable, of course, that alternative payment methods are growing rapidly and significantly increasing their market share. But cash lives on. The quantity of currency in the economy keeps growing. As **Figure 1** shows, since the start of the recession in December 2007 and throughout the recovery, the value of U. S. currency in circulation has risen dramatically. It is now fully 42% higher than it was five years ago.

"What explains the rapid rise in currency holdings at the same time that other methods of payment are displacing the greenback?"

What explains the rapid rise in currency holdings at the same time other methods of payment are displacing the greenback? And what is the future of cash? Are we truly becoming a society in which paper currency is obsolete? Or will the supply of currency continue to grow? It's useful to approach these questions and explain recent trends in the use of cash by considering the key economic and social factors behind what's happening in the payment market.

We are all affected by changes in payment technologies. These innovations are critically important to organizations and businesses in managing cash flow and making sure that transactions are convenient for customers. They are also of great importance to the Federal Reserve. Our nation's central bank is responsible for overseeing key parts of our payment system. A vital part of that responsibility is processing and distributing currency and coin. The Fed supplies them to the banking system so that they are available for use by the general public. Last year, the Federal Reserve processed 31.7 billion notes at our 28 processing centers across the country.

Figure 1. Currency in Circulation Soars



Since the start of the U.S. recession in December 2007 and throughout the recovery, the value of U.S. currency in circulation has risen dramatically.

Here at the Federal Reserve Bank of San Francisco, we are home to the Cash Product Office, the unit that provides operational and policy direction for the Fed's vast cash services. It is part of our job to understand what drives current demand for currency and predict future developments so that the Fed can plan for cash processing in the years and decades ahead.

The Supply and Demand for Cash

Why are holdings of currency soaring at the same time that Americans appear to be turning away from using cash to pay for purchases? To make sense of this paradox, it's helpful to understand the reasons people hold cash in the first place. Economists have identified two basic reasons why people use currency. First, it is exceptionally convenient as a medium of exchange. Cash is easy to carry, it's widely accepted, and it's easy to divide for transactions of different sizes. Importantly, you can count on cash even when other payment methods might not be working, during power outages and natural disasters, for example. And cash has another advantage to users: It's anonymous. Using cash keeps transactions away from the eyes of tax collectors, law enforcement agencies, and businesses that track the buying habits of individual Americans.

"Around the world, during periods of political unrest or war, cash—especially the currency of a stable country like the United States—is seen as a safe asset that can be spirited out of harm's way with relative ease."

The second reason to hold cash is that it serves as a store of value. Keeping a hoard of currency—whether under a mattress, in a safe, or in a safe deposit box—is often viewed as a low-risk way to hold financial assets. That's especially so during periods of political or financial turmoil. For example, during the recent financial crisis, some people may have withdrawn cash from accounts at banks and other institutions because they were afraid these institutions might fail. Around the world, during periods of political unrest or war, cash—especially the currency of a stable country like the United States—is seen as a safe asset that can be spirited out of harm's way with relative ease.

These two functions—medium of exchange and store of value—describe the benefits of holding cash. But there are costs as well. Unlike many bank accounts and other investments, currency does not bear interest. When you withdraw money from an account that pays interest and hold cash instead, you sacrifice the income you could have earned. Economists refer to this lost income as the opportunity cost of holding cash. In addition, people who keep large sums of currency can incur costs if they pay for protection against theft, by buying a safe, for example.

Understanding the benefits and costs of holding currency helps clarify what causes the demand for cash to rise or fall. First, reflecting its role as a medium of exchange, cash holdings tend to rise as total spending in the economy goes up over time. Second, cash holdings tend to rise during periods of political and economic turbulence. Third, when the interest rate depositors can earn from a bank account goes up, the opportunity cost of holding cash is higher and people tend to hold less of it. Finally, increased availability of low-cost alternatives to cash will tend to shrink cash holdings, all else equal.

". . . even though the amount of cash has continued to climb, the share of transactions using cash has fallen steadily in recent years."

So far, I've discussed what drives the demand for cash. But that's only half the story. Economics teaches us that if we want to understand the market for a commodity, we must also look at supply. What then determines the supply of currency? That's actually pretty straightforward. The Federal Reserve supplies currency elastically to the banking system. By elastically, I mean that, when people want to hold more cash, banks come to us, and we freely supply it to them. In turn, we debit the deposits the banks hold at the Fed. The result is that the amount of currency in circulation goes up. When people want to hold less cash, the process is reversed. We take back currency from banks and credit their accounts at the Fed. The amount of currency in circulation falls.

In fact, this rise and fall in the demand for cash actually takes place every year around the holiday shopping season. Late in the year, merchants and banks stock up on currency to meet the needs of shoppers. The quantity of currency in circulation shoots up. Then, after the New Year, the cash flows back into the Fed and currency in circulation declines.

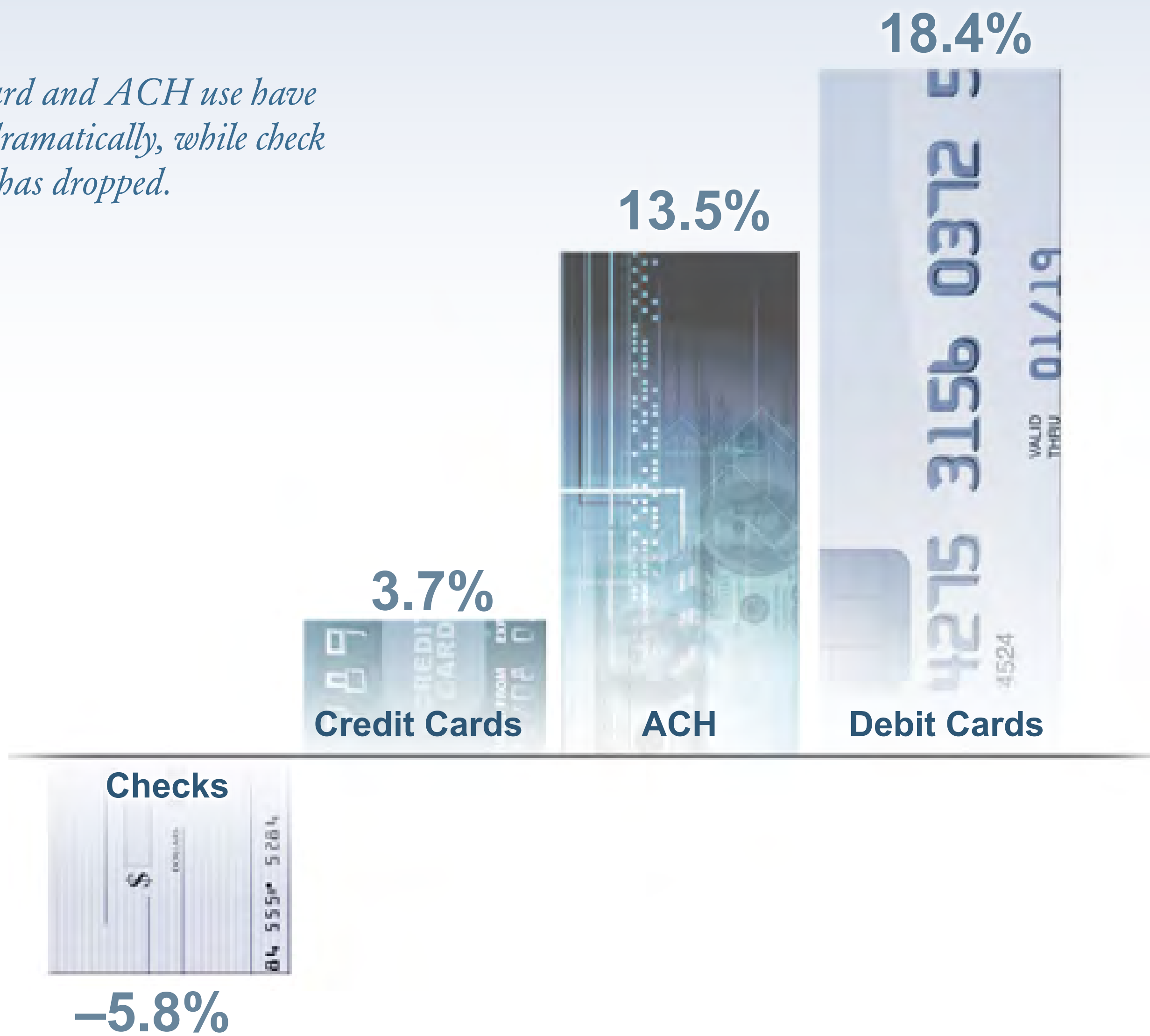
The Cash Paradox

There's no question that alternatives to cash have expanded dramatically over the past few decades. **Figure 2** shows trends in the use of the biggest payment alternatives—checks, debit cards, credit cards, and electronic payments cleared through the automated clearinghouse (ACH) system, which includes transactions such as bill payments and automated deposits of paychecks. Debit card and ACH use has grown dramatically, while check volume has dropped. Although not shown in the chart, there has also been significant growth in the use of prepaid cards.

The volume of currency transactions is harder to measure. But there's evidence that, even though the amount of cash has continued to climb, the share of transactions using cash has fallen steadily in recent years. One sign of this comes from comparing the growth of currency with face values of $50 and below with the overall growth of the economy. I look at these smaller bills because they are

Figure 2. Growth in Alternatives to Cash
Average annual percent growth in transaction volume, 2000-09

Debit card and ACH use have grown dramatically, while check volume has dropped.



the ones typically used for everyday purchases. In **Figure 3**, the green line shows the total value of all bills of $50 or less in circulation. The red line shows gross domestic product, which is the dollar value of everything the U.S. economy produces. Up until the mid-1990s, these lines track each other closely, indicating that the use of currency for transactions was growing in line with the economy. That's consistent with the medium-of-exchange role I described earlier. Around that time though, growth in the use of currency began lagging behind the growth of the economy, and it has never recovered. Some of this may be due to greater use of $100 bills in place of $20 and $50 bills as prices rose. But the size of the gap suggests that people turned to other means of payment besides cash, at least for small- and medium-sized transactions.

". . . in the six months following the fall of the investment bank Lehman Brothers in 2008, holdings of $100 bills soared by $58 billion, a 10% jump."

Despite the evidence that people are increasingly using other forms of payment, the amount of currency in circulation keeps piling up. The blue line in **Figure 3** shows the growth of total currency in circulation, including $100 bills and larger denominations that are no longer issued. Over the past five years, cash holdings increased on average about 7¼% annually, more than three times faster than the economy's growth rate over this period. At the end of 2012, currency in circulation stood at over $1.1 trillion, representing a staggering $3,500 for every man, woman, and child in the nation. If people aren't using this cash to pay for things, then what are they doing with it?

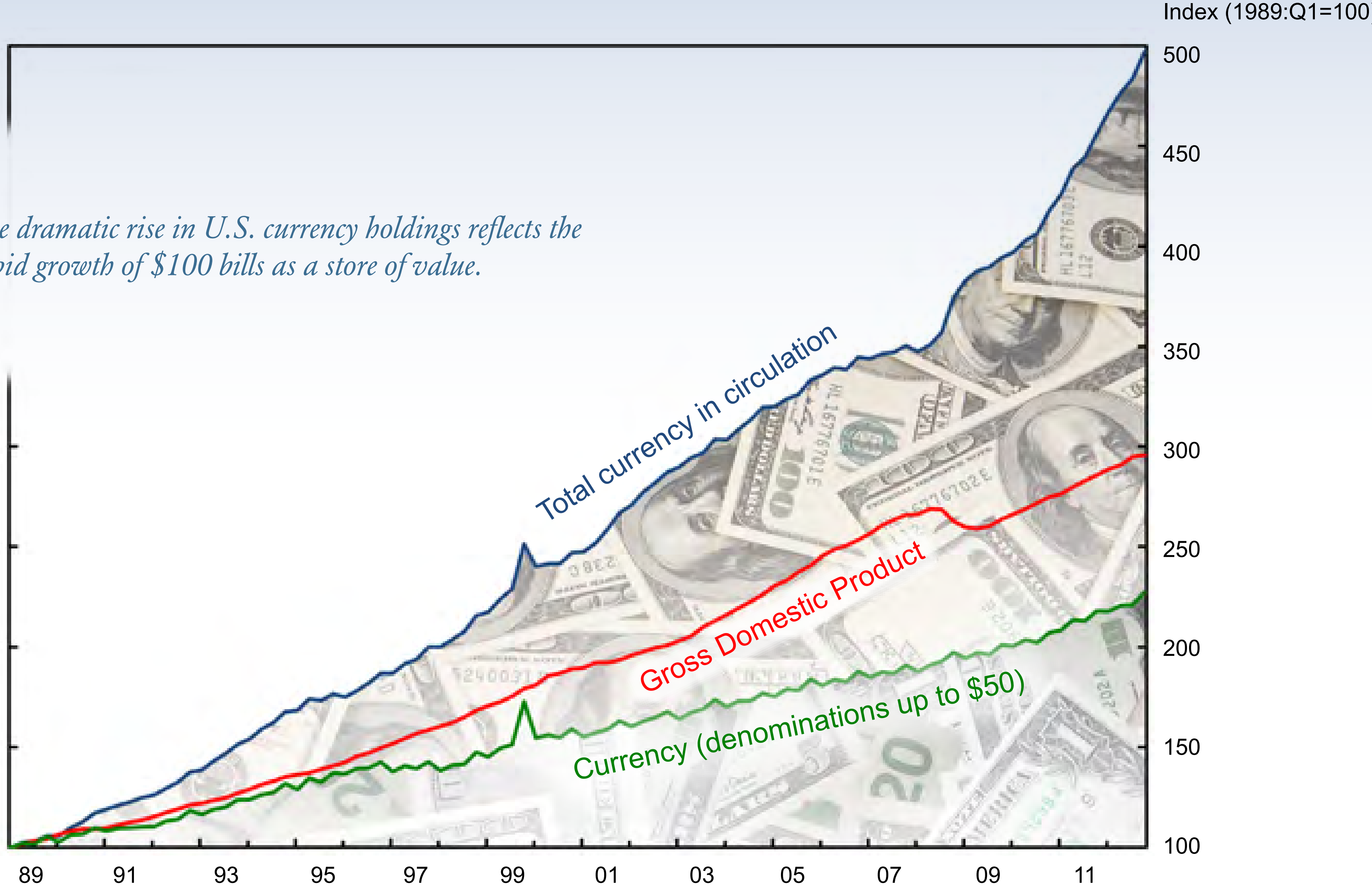
Follow the Franklins

The explanation for this cash mystery is hiding in plain view in **Figure 3**. The difference between the growth of total currency in circulation and currency in denominations of $50 and smaller reflects the rapid growth of holdings of $100 bills. But why would people hold so many more $100 bills now than before the recession? That brings us back to cash as a store of value. As fears about the safety of the banking system spread in late 2008, many people became terrified of losing their savings. Instead, they put their trust in cold, hard cash. Not surprisingly, as depositors socked away money to protect themselves against a financial collapse, they often sought $100 bills. Such a large denomination is easier to conceal or store in bulk than smaller bills. Indeed, in the six months following the fall of the investment bank Lehman Brothers in 2008, holdings of $100 bills soared by $58 billion, a 10% jump.

The U.S. financial crisis ended in 2009, and confidence in banks has largely returned. So, why have cash holdings continued to rise? One reason is that interest rates are very low in the United States and many other countries, dramatically lowering the opportunity cost of holding cash. In December 2008, the Federal Reserve lowered short-term interest rates close to zero, and they have remained low since. As a result, checking and short-term savings accounts offer extraordinarily low interest rates, if they pay anything at all. People have little incentive to put cash back into the banks.

Figure 3. Cash Transactions Lose Ground

The dramatic rise in U.S. currency holdings reflects the rapid growth of $100 bills as a store of value.



But there's more to the story. Demand for U.S. currency is not only affected by events at home. What happens in other countries is also important. Europe's financial crisis has played a powerful role in driving demand. As Europe's crisis worsened in the spring of 2010, U.S. currency holdings rose sharply. And they continued to rise as economic and political turmoil and uncertainty about the future sent Europeans scrambling to convert some of their euros to dollars. According to one estimate, the share of U.S. currency held abroad rose from about 56% before the tumultuous events of the past five years to nearly 66% in 2012.[1]

The Future of Cash in an Uncertain World

The unusually large rise in cash holdings over the past five years reflects a combination of circumstances. Interest rates in the United States and other countries have been exceptionally low. Economic and political uncertainty have been exceptionally high. Future demand for currency will be driven in large part by how these factors evolve. Developments in alternative payment methods will also affect demand. Meanwhile, when interest rates return to more-normal levels, the opportunity cost of holding cash will rise, which should cause currency demand to fall somewhat. But the $100 question is whether economic and political uncertainty will remain high. If uncertainty recedes, many people will probably take their $100 bills back to the banks. But if events in Europe or elsewhere around the globe stir more anxiety, appetite for U.S. dollars could surge anew. At the Federal Reserve, we need to plan for all contingencies and stand ready to meet the public's demand for currency, whatever the future holds.

1. These estimates of global demand for U.S. currency are from Judson (2012).

Further reading

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John C. Williams
President and
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as of January 1, 2013

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Not Pictured:

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Salt Lake City Branch Manager

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as of January 1, 2013

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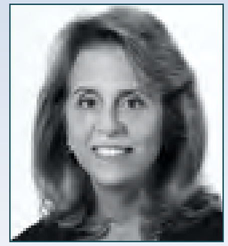
Chair of the Board and Federal Reserve Agent



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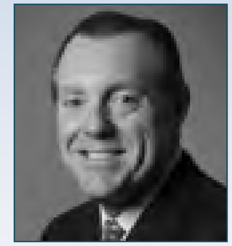
San Ramon, California

Deputy Chairman



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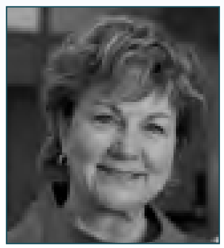

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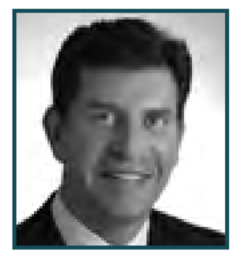

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*as of January 1, 2013**

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** Reflects one vacant seat*

Portland Branch Board of Directors

as of January 1, 2013

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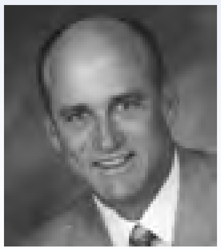

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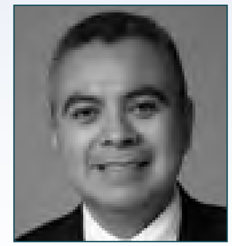

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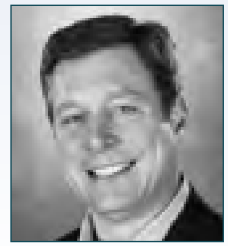

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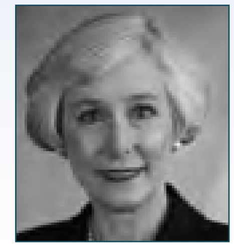

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Chief Executive Officer
Avista Corporation
Spokane, Washington

NICOLE W. PIASECKI
Vice President,
Business Development &
Strategic Integration
Boeing Commercial Airplanes
Seattle, Washington

PATRICK G. YALUNG
Regional President,
Washington
Wells Fargo Bank, N.A.
Seattle, Washington

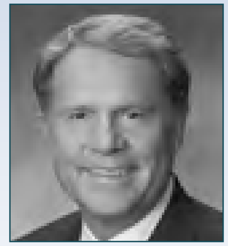
Twelfth District Economic Advisory Council

as of January 1, 2013

Established May 1985

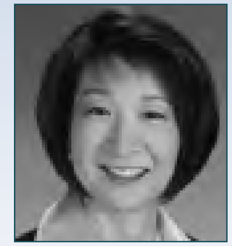
The Twelfth District Economic Advisory Council is a source of information on current and pending economic developments in the Twelfth District. The members provide observations, opinions, and advice to members of the boards of directors and management of the Federal Reserve Bank of San Francisco. The Twelfth District Economic Advisory Council members reside within the nine state District of this Reserve Bank.

Chairman



ALFRED A. PLAMANN
Chief Executive Officer
Unified Grocers, Inc.
Commerce, California

Vice Chair

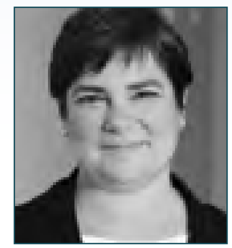


TRACEY C. DOI
Group Vice President and
Chief Financial Officer
Toyota Motor Sales, USA, Inc.
Torrance, California

RICHARD C. BLUM
Chairman and
Chief Executive Officer
Blum Capital Partners
San Francisco, California

IAN T. CLARK
Chief Executive Officer
Genentech
South San Francisco, California

PHILIP L. FRANCIS
Retired, Executive Chairman
PetSmart, Inc.
Phoenix, Arizona



KATHRYN A. HALL
Chief Executive Officer and
Chief Investment Officer
Hall Capital Partners, LLC
San Francisco, California

SANDRA R. HERNANDEZ, M.D.
Chief Executive Officer
The San Francisco Foundation
San Francisco, California

RICK R. HOLLEY
President and
Chief Executive Officer
Plum Creek Timber Co., Inc.
Seattle, Washington

GEORGE ZINN
Corporate Vice President and
Treasurer
Microsoft Corporation
Redmond, Washington

Twelfth District
Community Depository Institutions Advisory Council

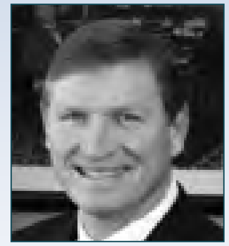
as of January 1, 2013

Established January 2011

The Twelfth District Community Depository Institutions Advisory Council (CDIAC) serves as an important source of information on the ability of community depository institutions to support local markets in the Twelfth District by providing observations, opinions, and advice to management of the Federal Reserve Bank of San Francisco and members of the Board of Governors of the Federal Reserve System. CDIAC members reside within the nine-state District of this Reserve Bank.

* *John V. Evans, Jr., chairman of the District CDIAC, represents the Twelfth District at the Board of Governors' CDIAC meetings.*

Chairman



JOHN V. EVANS, JR.*
Chief Executive Officer
DL Evans Bank
Burley, Idaho

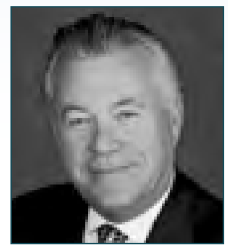
Vice Chairman

STEVEN R. GARDNER
President and
Chief Executive Officer
Pacific Premier Bank
Irvine, California

JAMES E. CHRISTENSEN
President and
Chief Executive Officer
Gateway Commercial Bank
Mesa, Arizona

DANIEL J. DOYLE
President and
Chief Executive Officer
Central Valley Community Bank
Fresno, California

MELANIE J. DRESSEL
President and
Chief Executive Officer
Columbia Bank
Tacoma, Washington



MALCOLM HOTCHKISS
President and
Chief Executive Officer
United Labor Bank, FSB
Oakland, California

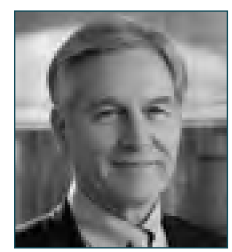
MARIA P. KUNAC
President and
Chief Executive Officer
Coronado First Bank
Coronado, California

CONSTANCE H. LAU
Chairman
American Savings Bank
Honolulu, Hawaii

ARVIND A. MENON
President and
Chief Executive Officer
Meadows Bank
Las Vegas, Nevada

DARIN B. MOODY
President and
Chief Executive Officer
Utah First Federal Credit Union
Salt Lake City, Utah

ROBERT A. STUART
President and
Chief Executive Officer
OnPoint Community Credit Union
Portland, Oregon



JAMES R. WOOLWINE
Chairman
Presidio Bank
San Francisco, California

Bank Officers and Principals

as of January 1, 2013

San Francisco Head Office

John C. Williams
President and Chief Executive Officer

John F. Moore
First Vice President and Chief Operating Officer

Glenn Rudebusch
Executive Vice President and Director of Research

Teresa M. Curran
Senior Vice President and Director of Banking Supervision and Regulation

Gopa Kumar
Senior Vice President and Chief Information Officer

Susan A. Sutherland
Senior Vice President and Director of Office of Minority and Women Inclusion

David M. Wright
Senior Vice President and Deputy Director of Banking Supervision and Regulation

Tracy A. Basinger
Group Vice President

Clifford N. Croxall
Group Vice President

Mary C. Daly
Group Vice President and Associate Director of Research

Lee C. Dwyer
Group Vice President and General Auditor

Fred T. Furlong
Group Vice President

Reuven Glick
Group Vice President

Joy K. Hoffmann
Group Vice President

Robert E. Kellar
Group Vice President

Donald R. Lieb
Group Vice President and Chief Financial Officer

Darren S. Post
Group Vice President

Erik Z. Revai
Group Vice President and General Counsel

Deborah S. Smyth
Group Vice President and Information Security Officer

David W. Walker
Group Vice President

Kevin E. Zerbe
Group Vice President

Barbara A. Bennett
Vice President

Kenneth R. Binning
Vice President

Sharon E. Chow
Vice President

Stanley M. Crisp
Vice President

Thomas M. Cunningham III
Vice President

Beverley-Ann Hawkins
Vice President and Equal Employment Opportunity Officer

Philip D. Jasienczyk
Vice President

Ann Marie Kohlligian
Vice President

Simon H. Kwan
Vice President

Patrick J. Loncar
Vice President

Jose A. Lopez
Vice President

William O. Riley
Vice President

Mark M. Spiegel
Vice President

David G. Tresmontan
Vice President

Scott C. Turner
Vice President

Rajat Agarwal
Director

Kevin C. Alecca
Director and Assistant General Auditor

Thomas A. Ballantyne
Director

Amy K. Burr
Director

Richard K. Cabral
Director

Marie C. Dimapasoc
Director

Michael J. Fernandez
Director

Julie Ann Guimond
Director

Chad K. Harper
Director

Dawn D. Hennings
Director

Jackie C. Hicks
Director

Donna Leung
Director

Joe A. Lozano
Director

Rick A. Miller
Director

David J. Moore
Director

Ashish V. Rawal
Director

David E. Reiser
Director

Jeremy R. Schley
Director

Byeongyong Seo
Director

Millen L. Simpson
Director

Kenneth J. Simurdiak
Director

Steven P. Takizawa
Director

Gerald C. Tsai
Director and Associate General Counsel and Secretary of the Board

Paulette M. Wallace
Director

Adair L. Willard
Director

Susan T. Wong
Director

Walter Y. Yao
Director

Kathleen Anne Young
Director

Wallace A. Young
Director

John G. Fernald
Senior Research Advisor

Bart Hobijn
Senior Research Advisor

Eric T. Swanson
Senior Research Advisor

Oscar Jorda
Research Advisor

Sylvain Leduc
Research Advisor

Zheng Liu
Research Advisor

Bharat Trehan
Research Advisor

Robert G. Valletta
Research Advisor

Michael V. Derry
Director

Cynthia L. Course
Principal

Maureen E. O'Byrne
Principal

Los Angeles Branch

Mark L. Mullinix
Executive Vice President

Roger W. Replogle
Senior Vice President

Deborah Awai
Group Vice President

Rita G. Aguilar
Director

Jose Alonso
Director

Anthony P. Dazzo
Director

Philip Bernard Johnson
Director

James LeVoir
Director

Richard Shershenovich
Director

Marla E. Borowski
Principal

Dale L. Vaughan
Principal

Portland Branch

Peggy L. Speck
Vice President

Steven H. Walker
Vice President

Salt Lake City Branch

Robin A. Rockwood
Vice President

Seattle Branch

Mark A. Gould
Senior Vice President

Lynn M. Jorgensen
Director

Darlene R. Wilczynski
Director

Summary of Operations

	(volume in thousands)	
	2012	**2011**
Cash Services		
Currency notes paid into circulation	5,992,667	5,653,561
Unfit currency destroyed	832,184	780,645
Coin bags paid into circulation (bags)	1,689	1,632
Discounts and Advances		
Total discounts and transactions*	346	258
Number of financial institutions accommodated*	139	133

**Whole number (not in thousands)*

Financial Statements

2012

Auditor Independence

The Board of Governors engaged Deloitte & Touche LLP (D&T) to audit the 2012 combined and individual financial statements of the Reserve Banks and those of the consolidated LLC entities.[1] In 2012, D&T also conducted audits of internal controls over financial reporting for each of the Reserve Banks, Maiden Lane LLC, Maiden Lane III LLC, and TALF LLC. Fees for D&T's services totaled $7 million, of which $1 million was for the audits of the consolidated LLC entities. To ensure auditor independence, the Board requires that D&T be independent in all matters relating to the audits. Specifically, D&T may not perform services for the Reserve Banks or others that would place it in a position of auditing its own work, making management decisions on behalf of the Reserve Banks, or in any other way impairing its audit independence. In 2012, the Bank did not engage D&T for any non-audit services. The Bank leases office space to Deloitte LLC.

View the Federal Reserve Bank of San Francisco's 2012 financial statements, along with financial statements for the entire Federal Reserve System, at:

http://www.federalreserve.gov/monetarypolicy/files/BSTSanFranciscofinstmt2012.PDF

1. In addition, D&T audited the Office of Employee Benefits of the Federal Reserve System (OEB), the Retirement Plan for Employees of the Federal Reserve System (System Plan), and the Thrift Plan for Employees of the Federal Reserve System (Thrift Plan). The System Plan and the Thrift Plan provide retirement benefits to employees of the Board, the Federal Reserve Banks, and the OEB.

Credits

Production: Strategy & Communications

Photography: Strategy & Communications (pages 16, 17, 18)

Thank you to the following departments for their contributions to the 2012 annual report: Accounting, Cash Product Office, Credit and Risk Management, District Cash, Economic Research, Human Resources, Office of the Secretary, and Public Information.

For notification of future annual report online postings, subscribe at: www.frbsf.org/publications/federalreserve/annual.