

Economics Group

Special Commentary

Jay H. Bryson, Global Economist
jay.bryson@wellsfargo.com • (704) 410-3274
Michael A. Brown, Economist
michael.a.brown@wellsfargo.com • (704) 410-3278

Health Care Inflation and the Federal Budget

Executive Summary

Not only has the overall rate of consumer price inflation declined over the past few years, a fact that is widely known, but the rate of medical care inflation has also dropped markedly, which may not be as well appreciated by the public. Indeed, the rate of medical care inflation at present is roughly 1 percent, which is essentially the same as the overall rate of consumer price inflation.

Although precise estimates vary, there is general agreement that cyclical factors have played at least some role in depressing medical care inflation. Therefore, health care prices will likely accelerate somewhat over the next few years, as economic growth strengthens. With medical care products and services accounting for about 7 percent of the total consumer expenditures, acceleration in the prices of these goods and services, should it occur, would put some modest upward pressure on overall CPI inflation.

The rate of medical care inflation also has some implication for the federal budget, as health care expenditures currently account for roughly one-quarter of the federal budget. Our sensitivity analysis indicates that the upside risks to the CBO's forecast of federal health care expenditures seem to be balanced by the downside risks. Consequently, we have no major disagreement with the CBO's forecast of a gradually rising ratio of federal health care expenditures-to-GDP over the next decade.

Medical Care Inflation Has Receded in Recent Years

It is a well-known fact that the overall rate of consumer price inflation has receded in recent years in the United States. As measured by the deflator on personal consumption expenditures (PCE), consumer price inflation is running a bit above 1 percent at present (Figure 1). What may be surprising to some readers is that medical care inflation is also quite benign at present. Although medical care inflation has generally exceeded overall PCE inflation over the past two decades, it too is presently running at only 1 percent.¹ Moreover, the sources of medical care disinflation are broad based. Figure 2 shows that inflation rates in the four underlying sub-components of medical care (i.e., pharmaceutical products, outpatient services, hospital services and health insurance) have all declined in recent years. Indeed, prices of pharmaceutical products are currently flat on a year-ago basis.

Cyclical and Structural Reasons for Health Care Disinflation

Why has medical care inflation dropped to only 1 percent today from the 3 to 4 percent range before the "Great Recession?" There could be two explanations for the recent slowdown in medical care inflation, one related to cyclical factors and one related to structural factors. The former relates to the sensitivity of medical care inflation to the business cycle. Structural factors represent developments, which are more or less independent of the business cycle that can lead to

**Medical care
inflation is only
1 percent at
present.**

¹ To construct the medical care inflation rate shown in Figure 1, we used the weighted-average of the year-over-year changes in the deflators for pharmaceutical products, outpatient services, hospital services, and health insurance. Weights were constructed from shares of nominal PCE accounted for by each health care spending category.



shifts in health care costs, such as new technology or health care policy changes. For example in the 1990s a rapid expansion of managed care brought about sharp declines in medical care inflation. So is the recent decline in health care inflation cyclical or structural in nature?

Figure 1

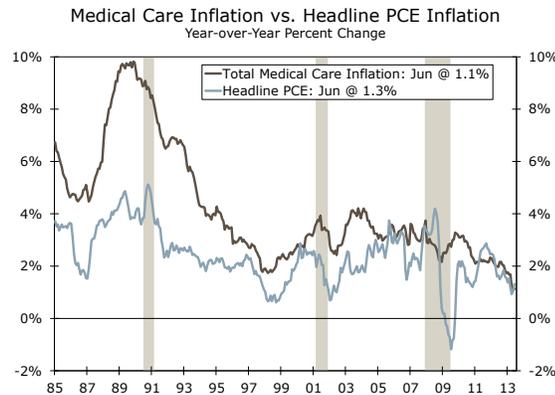
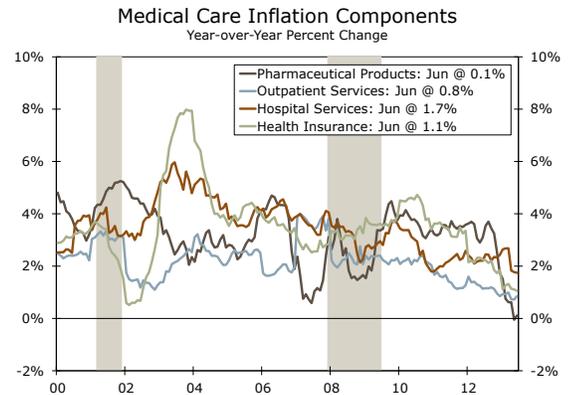


Figure 2



Source: Department of Commerce and Wells Fargo Securities, LLC

Recently, there have been two prominent studies that have attempted to separate the cyclical and structural factors behind the recent pullback in the rate of medical care inflation. The Kaiser Family Foundation released a report in April 2013 that found two cyclical macroeconomic effects that explained the bulk (77 percent) of the current decline in health spending.² These two cyclical factors, current year inflation and real GDP growth in the current and prior five years, the authors argue, are the key reasons why health care spending has continued to decline even after the recession.

Health care inflation should rise again as the economy strengthens.

The report also finds that the cyclical effects on health care inflation are slow to develop. Therefore, the overall effects on health care inflation can last over a six-year period. There are a number of factors that the authors attribute to this lagged effect, including the fact that most individuals are insured and, in turn, shielded from the full costs of health care. In addition, consumers perceive health care as a necessity even under tighter household budget constraints, and many employers are initially slow to change health insurance coverage in response to fluctuations in the economy. The key finding of the report suggests that the rate of health care inflation will rise again as economic growth strengthens over the next few years.

Structural factors could depress medical care inflation for years to come.

In contrast, a similar report released in May from Health Affairs finds that cyclical economic factors account for less than half (45 percent) of the recent decline in health care inflation.³ The results suggest that there are more pronounced structural factors at work helping to reduce the rate of health care inflation. Among the structural factors cited by the authors are technological changes that include the introduction of fewer pricy blockbuster drugs in recent years. In addition, the ongoing shift from inpatient to outpatient care services, increased cost sharing in health care and increased efficiency among health care providers have also helped rein in the cost of medical care inflation.

In our view, there are signs of cyclical and structural factors at work in the recent decline in health care inflation. On the cyclical side, the typical lagged effect of six years suggests that we still have not seen the last of the effects following the Great Recession. As economic and job growth picks up so too does the prevalence of employer sponsored health insurance and, thus, the demand for health care services slowly bounces back. Given the slower-than-average pace of real GDP growth over the past few years, it stands to reason that the lagged effects are likely more pronounced as

² Larry, L., Claxton, G., Roehrig, C., and Getzen, T. (Apr. 2013). *Assessing the Effects of the Economy on the Recent Slowdown in Health Spending*. The Henry J. Kaiser Family Foundation.

³ Cutler, D. M., and Sahni, N. (2013). *If Slow Rate Of Health Care Spending Growth Persists, Projections May Be Off By \$770 Billion*. Health Affairs 32, no. 5: 841-850.

well and, thus, we have yet to see the upturn in the rate of overall medical inflation if prices are more cyclically driven. Some individuals may, for example, postpone elective medical procedures until the economic recovery is fully under way following a recession.

Evidence of this cyclical influence can be seen in the growth rate of real (i.e., inflation-adjusted) health care spending, which over the past few years has declined to its slowest rate in decades (Figure 3). Slower growth in real health care spending should help reduce medical care inflation. In addition, the weak labor market since the onset of the Great Recession has reduced wage inflation. The employment cost index for health care workers has decelerated in recent years, and it is currently up only 1.5 percent on a year-ago basis (Figure 4). Everything else equal, lower wage inflation for health care workers should lead to lower rates of medical care inflation.

Growth in real health care spending has dropped to its slowest rate in decades.

Figure 3

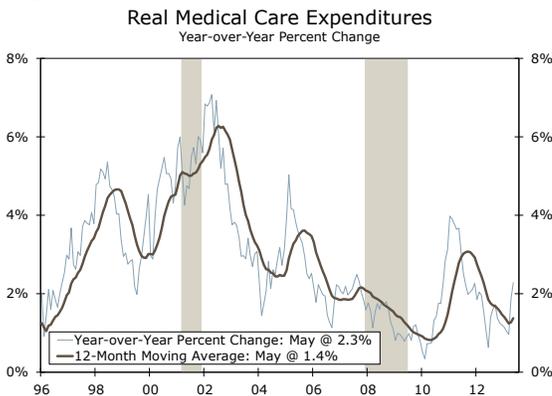
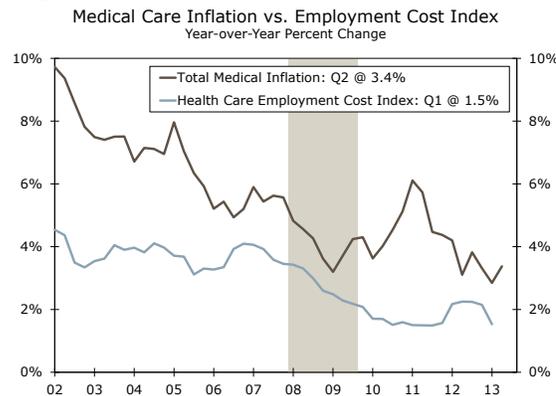


Figure 4



Source: Department of Commerce, Department of Labor and Wells Fargo Securities, LLC

There also appears to be a number of structural factors that could be keeping a lid on health care price pressures. For example, a number of brand-named drugs can now be sold as their generic equivalent.⁴ Many procedures that historically were performed in hospitals can now be done in outpatient centers where costs tend to be lower. The wider availability of high-deductible policies has also helped to depress inflation in health insurance.⁵ The most pronounced structural shift that is expected to take place in 2014 is the implementation of the Affordable Care Act (ACA), which will expand coverage to a larger number of individuals under the federal Medicaid program.

Will Medical Care Inflation Remain Low?

Will the recent decline in medical care inflation be long-lasting or is it just a temporary phenomenon? The duration of the current downward trend in health care inflation can be traced again to the nature of the decline. If cyclical factors dominate structural factors, then it stands to reason that the downward trend in health care inflation will likely come to an end soon and the estimated pick up in health care inflation will coincide with the more pronounced pace of GDP growth. On the other hand, if the nature of the current health care inflation declines is structural in nature, then it could be that these “shifts” within the sector could lead to an ongoing low rate of health care inflation.

While the two studies mentioned above disagree on the magnitude of each of these factors, they both agree that cyclical factors have played at least some role in depressing the rate of health care

⁴ For example, Caduet, which is a brand name drug that can be prescribed to individuals with high blood pressure, can now be sold as amlodipine, its generic equivalent, and Lipitor, the widely-known high cholesterol medication, is now available as atorvastatin.

⁵ The percentage of workers enrolled in a plan that included an annual deductible rose from 52 percent in 2006 to 72 percent in 2012. See “The Prevalence and Cost of Deductibles in Employer Sponsored Insurance,” The Henry J. Kaiser Family Foundation, November 2012.

There is a reasonable chance that health care inflation could rise again.

inflation in recent years. In other words, there is a reasonable chance that health care inflation could rise again, especially if overall GDP growth continues to strengthen. However, these results also suggest that some of the structural changes that have recently emerged within the health care sector could prevent the overall rate of health care inflation from returning to its pre-recession tendency of significantly exceeding the overall rate of consumer price inflation.

Implications for Future Federal Health Care Spending

Not only does the rate of medical care inflation affect the affordability of health care by consumers, but it also has implications for the federal government's budget. Numerous reports have highlighted the concerning trends in federal health care spending in recent years, including publications from the Congressional Budget Office (CBO), Congressional Research Service (CRS) and the Boards of Trustees for Medicare.⁶ Each of these studies highlights the growing burden that health care spending is placing on the federal deficit and the nation's debt.

The CBO is the most frequently cited source used by lawmakers to quantify the budget trends within the health care sector. In its latest report on the budget outlook, the CBO makes reference to anticipated rapid growth in federal spending on health care programs as a share of GDP. Outside of the interest payments on federal debt, outlays for major health programs make up the largest driver of federal government outlays over the next decade (Figure 5). Federal spending on major medical programs is anticipated to rise to 7 percent of GDP by FY 2023 from around 5 percent of GDP in the current fiscal year (FY), which ends on Sept. 30.

Figure 6 disaggregates projected federal spending on health care into the two major programs of Medicare and Medicaid. Medicare spending remains around 3.5 percent of GDP through 2019 and then rises above 4.0 percent of GDP by 2023 (Figure 6).⁷ Medicaid outlays rise rapidly from roughly 1.5 percent of GDP in FY 2013 before leveling off around 2.0 percent from FY 2016 through FY 2023. Much of the increase in Medicaid spending over the next few years stems from the rapid expansion of the Medicaid program under the Affordable Care Act.⁸

The CBO projects that health care spending will eat up an increasing part of the federal budget.

Figure 5

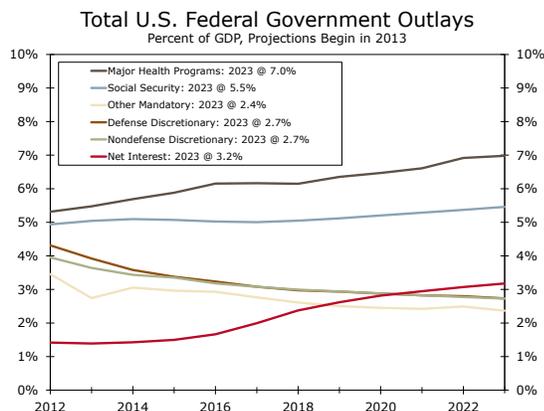
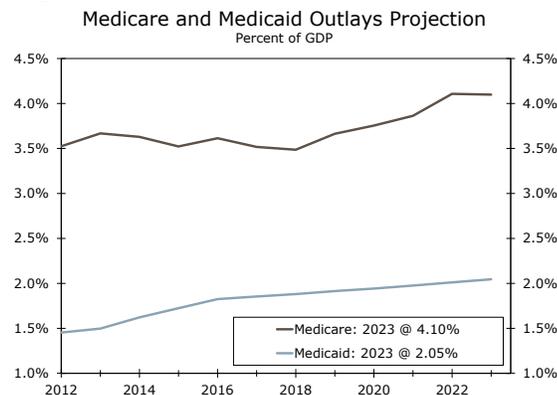


Figure 6



Source: Congressional Budget Office and Wells Fargo Securities, LLC

Whether or not the CBO's long-run projections for federal health care spending are realized will depend, at least in part, on the interplay between cyclical and structural factors that drive health

⁶Congressional Budget Office. (Feb. 2010). *The Budget and Economic Outlook: Fiscal Years 2013 to 2023*. Jensen, J. (Jun. 2008). *Government Spending on Health Care Benefits and Programs: A Data Brief*. (CRS Report No. RS22898). Congressional Research Service, Library of Congress.

The Boards of Trustees, *Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*. (May 2013). *2013 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*.

⁷ Figure 6 represents gross Medicare and Medicaid benefit outlays only. Administrative program costs and the effects of budget sequestration have been omitted for the purpose of this analysis.

⁸ Patient Protection and Affordable Care Act, Pub. L. No. 111-148. (2010).

care inflation. The structural factor of the ACA clearly plays a major role in the CBO’s projection of significant increases in Medicaid spending over the next few years. On the other hand, the Medicare program does not experience the same surge in enrollment as Medicaid does. The flat Medicare spending-to-GDP ratio that the CBO projects over the next few years that is shown in Figure 6 largely reflects small increases in the cost-per-beneficiary, which can be used as a proxy for health care inflation in the Medicare program (Figure 7). Once the economy picks up some steam, the cost-per-beneficiary begins to rise more rapidly, which is consistent with a strong cyclical influence on health care spending.

The structural factor of the ACA clearly plays a major role in the CBO’s projected increases in Medicaid.

Figure 7

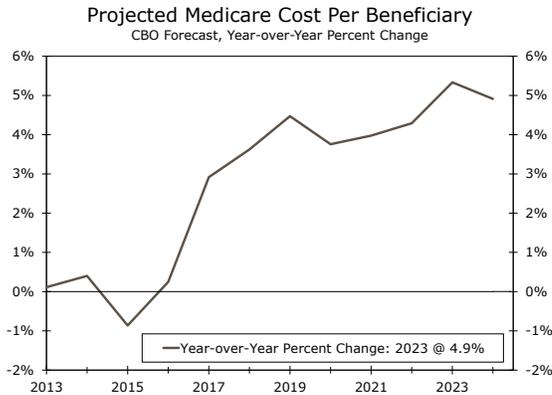
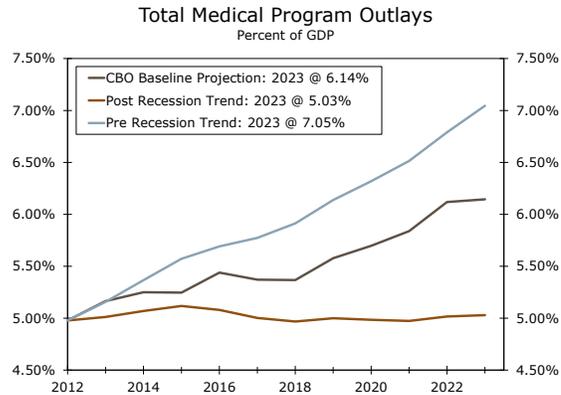


Figure 8



Source: Congressional Budget Office and Wells Fargo Securities, LLC

Federal Health Care Spending: A Sensitivity Analysis

In an effort to quantify the potential upside and downside risks to the current CBO estimates, we performed a sensitivity analysis for the two main federal health care programs of Medicare and Medicaid over the next decade. The black line in Figure 8 shows the CBO’s baseline projection (as a percentage of GDP).⁹ We calculated our upper bound by assuming that the rate of increase of Medicare spending per enrollee, which we use as a proxy for health care inflation, over the headline CPI inflation rate will return to the average historical spread that prevailed during the last business cycle.¹⁰ We used a similar methodology to calculate an upper bound for Medicaid expenditures. The idea is that if cyclical inflation factors are at play, or at least more dominant than structural factors, then the historical experience of health care inflation outpacing the overall rate of CPI inflation should return.

To construct the lower bound, we assumed that the cost per enrollee in Medicare and Medicaid will grow at the same rate as CBO’s forecasts of overall CPI inflation. The idea here is that if there are more structural factors keeping a lid on health care inflation, then we would expect that the rate of health care inflation would not exceed the overall rate of inflation. Given these two scenarios, we can then sweep out upper and lower bounds for our proxy health care inflation measure and in turn relate this directly to the CBO’s assumptions of program costs growth over the next decade.

Figure 8 shows that the CBO’s baseline forecast is roughly in the middle of our upper and lower bounds. Therefore, the CBO seems to be making the implicit assumption that some of the structural factors that have helped to constrain the rate of health care inflation over the past few

⁹ The baseline projection that is shown in Figure 8 simply contains outlays on Medicare and Medicaid. It does not include federal subsidies to the health insurance exchanges, which were established by the ACA and become operational in 2014, nor spending on some other small health care programs like the Children’s Health Insurance Program. These spending categories are included in Figure 5.

¹⁰ This spread averaged 4.2 percentage points between 2001 and 2007. For Medicare, we excluded 2006 because the introduction of Medicare Part D (i.e., the prescription drug benefit) caused the cost per enrollee to jump on a one-off basis in that year.

years will continue to exert downward pressure on the rate of increase of federal health care spending. However, as the lagged effects of stronger economic growth start to put upward pressure on medical price inflation in the latter years of the CBO's forecast horizon, federal health care expenditures start to ramp up. If the CBO is underestimating the inflation-restraining effects of some of the recent structural changes in the health care industry, then federal health care expenditures will likely not ramp up as fast as the CBO forecasts. In a best-case scenario in which health care inflation is equal to the overall CPI inflation rate, federal health care spending remains roughly constant at 5 percent of GDP over the next decade.

The upside risks to the CBO's forecast of federal health care expenditures seem to be balanced by the downside risks.

On the other hand, however, if cyclical factors start to dominate structural factors sooner than the CBO projects, then the CBO would be underestimating medical care inflation and, consequently, increases in federal health care expenditures. In a worst-case scenario, in which the rate of increase of federal health care spending per enrollee returns to the average historical spread that prevailed during the last business cycle, then federal spending on Medicare and Medicaid would be more than \$200 billion higher in 2023 than the CBO currently projects. On balance, however, the upside risks to the CBO's forecast of federal health care expenditures seem to be balanced by the downside risks. Consequently, we have no major disagreement with the CBO's forecast of a gradually rising ratio of federal health care expenditures-to-GDP over the next decade.

Conclusion

The disinflation that the country has experienced in medical care has been a pleasant surprise over the past few years. Although precise estimates vary, there is a general agreement that cyclical factors have played at least some role in depressing medical care inflation. Therefore, health care prices will likely accelerate somewhat over the next few years as economic growth strengthens. With medical care products and services accounting for about 7 percent of the total consumer expenditures, acceleration in the prices of these goods and services, should it occur, would put some modest upward pressure on overall consumer price inflation.

The rate of medical care inflation also has some implication for the federal budget, as health care expenditures currently account for roughly one-quarter of the federal budget. Our sensitivity analysis indicates that the upside risks to the CBO's forecast of federal health care expenditures seem to be balanced by the downside risks. Consequently, we have no major disagreement with the CBO's forecast of a gradually rising ratio of federal health care expenditures-to-GDP over the next decade.

Wells Fargo Securities, LLC Economics Group

Diane Schumaker-Krieg	Global Head of Research, Economics & Strategy	(704) 410-1801 (212) 214-5070	diane.schumaker@wellsfargo.com
John E. Silvia, Ph.D.	Chief Economist	(704) 410-3275	john.silvia@wellsfargo.com
Mark Vitner	Senior Economist	(704) 410-3277	mark.vitner@wellsfargo.com
Jay Bryson, Ph.D.	Global Economist	(704) 410-3274	jay.bryson@wellsfargo.com
Sam Bullard	Senior Economist	(704) 410-3280	sam.bullard@wellsfargo.com
Nick Bennenbroek	Currency Strategist	(212) 214-5636	nicholas.bennenbroek@wellsfargo.com
Eugenio Aleman, Ph.D.	Senior Economist	(704) 410-3273	eugenio.j.aleman@wellsfargo.com
Anika Khan	Senior Economist	(704) 410-3271	anika.khan@wellsfargo.com
Azhar Iqbal	Econometrician	(704) 410-3270	azhar.iqbal@wellsfargo.com
Tim Quinlan	Economist	(704) 410-3283	tim.quinlan@wellsfargo.com
Michael A. Brown	Economist	(704) 410-3278	michael.a.brown@wellsfargo.com
Sarah Watt	Economist	(704) 410-3282	sarah.watt@wellsfargo.com
Michael T. Wolf	Economist	(704) 410-3286	michael.t.wolf@wellsfargo.com
Sara Silverman	Economic Analyst	(704) 410-3281	sara.silverman@wellsfargo.com
Zachary Griffiths	Economic Analyst	(704) 410-3284	zachary.griffiths@wellsfargo.com
Peg Gavin	Executive Assistant	(704) 410-3279	peg.gavin@wellsfargo.com
Cyndi Burris	Administrative Assistant	(704) 410-3272	cyndi.burris@wellsfargo.com

Wells Fargo Securities Economics Group publications are produced by Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the Securities Investor Protection Corp. Wells Fargo Securities, LLC, distributes these publications directly and through subsidiaries including, but not limited to, Wells Fargo & Company, Wells Fargo Bank N.A., Wells Fargo Advisors, LLC, Wells Fargo Securities International Limited, Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC. ("WFS") is registered with the Commodities Futures Trading Commission as a futures commission merchant and is a member in good standing of the National Futures Association. Wells Fargo Bank, N.A. ("WFBNA") is registered with the Commodities Futures Trading Commission as a swap dealer and is a member in good standing of the National Futures Association. WFS and WFBNA are generally engaged in the trading of futures and derivative products, any of which may be discussed within this publication. The information and opinions herein are for general information use only. Wells Fargo Securities, LLC does not guarantee their accuracy or completeness, nor does Wells Fargo Securities, LLC assume any liability for any loss that may result from the reliance by any person upon any such information or opinions. Such information and opinions are subject to change without notice, are for general information only and are not intended as an offer or solicitation with respect to the purchase or sales of any security or as personalized investment advice. Wells Fargo Securities, LLC is a separate legal entity and distinct from affiliated banks and is a wholly owned subsidiary of Wells Fargo & Company © 2013 Wells Fargo Securities, LLC.

Important Information for Non-U.S. Recipients

For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Services Authority. The content of this report has been approved by WFSIL a regulated person under the Act. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FSA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients. This document and any other materials accompanying this document (collectively, the "Materials") are provided for general informational purposes only.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE

WELLS
FARGO

SECURITIES