

McKinsey Global Institute



November 2013

# QE and ultra-low interest rates: Distributional effects and risks

Discussion paper



## **The McKinsey Global Institute**

The McKinsey Global Institute (MGI), the business and economics research arm of McKinsey & Company, was established in 1990 to develop a deeper understanding of the evolving global economy. Our goal is to provide leaders in the commercial, public, and social sectors with facts and insights on which to base management and policy decisions.

MGI research combines the disciplines of economics and management, employing the analytical tools of economics with the insights of business leaders. Our “micro-to-macro” methodology examines microeconomic industry trends to better understand the broad macroeconomic forces affecting business strategy and public policy. MGI’s in-depth reports have covered more than 20 countries and 30 industries. Current research focuses on five themes: productivity and growth; the evolution of global financial markets; the economic impact of technology and innovation; urbanization and infrastructure; and natural resources. Recent research covers job creation, infrastructure productivity, a new wave of disruptive technologies, trends in resource markets, and the shifting global company landscape.

MGI is led by McKinsey & Company directors Richard Dobbs, James Manyika, and Jonathan Woetzel. Yougang Chen, Michael Chui, Susan Lund, and Jaana Remes serve as MGI principals. Project teams are led by a group of senior fellows and include consultants from McKinsey’s offices around the world. These teams draw on McKinsey’s global network of partners and industry and management experts. In addition, leading economists, including Nobel laureates, act as research advisers. The partners of McKinsey & Company fund MGI’s research; it is not commissioned by any business, government, or other institution. For further information about MGI and to download reports, please visit [www.mckinsey.com/mgi](http://www.mckinsey.com/mgi).

We welcome your feedback on this discussion paper. Please send your comments to [QE@mckinsey.com](mailto:QE@mckinsey.com).

McKinsey Global Institute

November 2013

# QE and ultra-low interest rates: Distributional effects and risks

Discussion paper

Richard Dobbs

Susan Lund

Tim Koller

Ari Shwayder



# Executive summary

In response to the global financial crisis and recession that began in 2007, the major central banks in a number of advanced economies—in particular, the United States, the United Kingdom, the Eurozone, and Japan—embarked upon an unprecedented effort to stabilize and inject liquidity into financial markets. In the immediate aftermath of the crisis, central bank action was aimed at preventing a catastrophic failure of the financial system. In the years since, central banks have continued to employ a range of conventional and unconventional monetary policy tools to support growth and revive the flow of credit to their economies.

There is widespread consensus that the decision to implement these monetary policies was an appropriate—and indeed necessary—response in the early days of the financial crisis given the magnitude of the economic shock to the global economy. More than five years later, however, central banks are still using conventional monetary tools to cut short-term interest rates to near zero and, in tandem, are deploying unconventional tools to provide liquidity and credit market facilities to banks, undertaking large-scale asset purchases—or quantitative easing (QE)—and attempting to influence market expectations by signaling future policy through forward guidance. These measures, along with a lack of demand for credit given the global recession, have contributed to a decline in real and nominal interest rates to ultra-low levels that have been sustained over the past five years.

Many academic and central bank studies have found that the measures taken by central banks prevented a deeper recession and higher unemployment than would have otherwise been the case. Estimates from macroeconomic models by the US Federal Reserve, the Bank of England, and others show that, compared with a scenario in which no such action was taken, unconventional monetary policies have improved GDP by between 1 and 3 percent, reduced the unemployment rate by about 1 percentage point, and prevented deflation.<sup>1</sup> If the emergency measures employed at the start of the financial crisis did indeed head off an uncontrolled downward spiral of the global financial system, then the macroeconomic value of the damage prevention could be far larger than these estimates indicate.

This paper is our contribution to an ongoing debate about these central bank policies. In particular, our research seeks to shed light on the distributional effects of unconventional monetary policies at the microeconomic level—including the impact on governments, non-financial corporations, banks, insurance companies, pension funds, and households. Although there are always some distributional

---

1 For a summary of the literature, see *Global impact and challenges of unconventional monetary policy*, International Monetary Fund (IMF) policy paper, October 7, 2013; John C. Williams, “Lessons from the financial crisis for unconventional monetary policy,” presented at a panel discussion at the National Bureau of Economic Research (NBER) Conference in Boston, Massachusetts, October 18, 2013; and Eric Santor and Lena Suchanek, “Unconventional monetary policies: Evolving practices, their effects and potential costs,” *Bank of Canada Review*, spring 2013.

effects from monetary policy, these are likely to be far larger than in normal economic times given the scale of monetary actions in recent years. Specifically, in our research we assess the impact on net interest income for these groups in the United States, the United Kingdom, and the Eurozone, evaluate the effect of low rates on asset prices and any corresponding wealth effect for households, and consider what impact ultra-low rates have had on cross-border capital flows to emerging markets. We conclude with a discussion of potential risks, in the light of this micro research, as either these policies are tapered and interest rates rise, or rates remain low.

Our headline finding is that ultra-low interest rates have produced significant distributional effects if we focus exclusively on the impact on interest income and interest expense. Although governments have borne substantial costs generated by the financial crisis and the resulting recession, ultra-low interest rates prompted by monetary policy have substantially lowered their borrowing costs, enabling them, in some cases, to finance higher public spending to support economic growth. Non-financial corporations have also benefited as the cost of debt has fallen, although this has not translated into increased investment, perhaps because the recession has lowered their expectations of future demand. Households, in contrast, have fared less well in terms of interest income and expense, although the negative impact on household income may be offset by wealth gains from increased asset prices.

Our analysis merits two caveats. In all analysis on the impact of unconventional monetary policies and ultra-low interest rates, we, along with other researchers on the topic, face the challenge of assessing what would have happened if these policies had not been implemented—the so-called counterfactual. This is unknown and indeed unknowable. Nevertheless, we have used a variety of approaches to estimate how the actual outcome would have compared with a situation in which central banks had not acted the way they did. In addition, our microeconomic analysis looks only at the direct impact on specific sectors, not second-order effects across the economy. It seems likely that central bank actions stabilized the financial system, limited the damage from the financial crisis, and dampened the recession, thereby benefiting all actors in the economy. Nonetheless, we believe that examining the microeconomic consequences—even if these were unintended—is useful in understanding the distributional effects and risks of ultra-low rate policies and in shedding light on the future as these policies are reversed.

Our major findings include the following:

- Between 2007 and 2012, ultra-low interest rates produced large distributional effects on different sectors in advanced economies through changes in interest income and interest expense. By the end of 2012, governments in the United States, the United Kingdom, and the Eurozone had collectively benefited by \$1.6 trillion, through both reduced debt service costs and increased profits remitted from central banks. Meanwhile, households in these countries together lost \$630 billion in net interest income, with variations in the impact among demographic groups. Younger households that are net borrowers have benefited, while older households with significant interest-bearing assets have lost income. Non-financial corporations across these countries benefited by \$710 billion through lower debt service costs.

- The era of ultra-low interest rates has eroded the profitability of banks in the Eurozone.<sup>2</sup> Effective net interest margins for Eurozone banks have declined significantly, and their cumulative loss of net interest income totaled \$230 billion between 2007 and 2012. In contrast, banks in the United States have experienced an increase in effective net interest margins as interest paid on deposits and other liabilities has declined more than interest received on loans and other assets. From 2007 to 2012, the net interest income of US banks increased cumulatively by \$150 billion. Over this period, therefore, there has been a divergence in the competitive positions of US and European banks. The experience of UK banks falls between these two extremes.
- Life insurance companies, particularly in several European countries, are being squeezed by ultra-low interest rates. Those insurers that offer customers guaranteed-rate products are finding that government bond yields are below the rates being paid to customers. If the low interest-rate environment were to continue for several more years, many of these insurers would find their survival threatened.
- The impact of ultra-low rate monetary policies on financial asset prices is ambiguous. Bond prices rise as interest rates decline, and, between 2007 and 2012, the value of sovereign and corporate bonds in the United States, the United Kingdom, and the Eurozone increased by \$16 trillion. But we found little conclusive evidence that ultra-low interest rates have boosted equity markets. Although announcements about changes to ultra-low rate policies do spark short-term market movements in equity prices, these movements do not persist in the long term. Moreover, there is little evidence of a large-scale shift into equities as part of a search for yield. Price-earnings ratios and price-book ratios in stock markets are no higher than long-term averages.
- Ultra-low interest rates are likely to have bolstered house prices, although the impact in the United States has been dampened by structural factors in the market. At the end of 2012, house prices may have been as much as 15 percent higher in the United States and the United Kingdom than they otherwise would have been without ultra-low interest rates, as these rates reduce the cost of borrowing. We based this estimate on academic research using historical data that suggest how housing prices rise as interest rates decline. In the United Kingdom, it is plausible that this relationship holds today. However, in the United States, it is unclear whether the historical relationship between interest rates and housing prices holds today because of an oversupply of housing and tightened credit standards.
- If one accepts that house prices and bond prices are higher today than they otherwise would have been as a result of ultra-low interest rates, the increase in household wealth and possible additional consumption it has enabled would far outweigh the income lost to households. However, while the net interest income effect is a tangible influence on household cash flows, additional consumption that comes from rising wealth is less certain, particularly since asset prices remain below their peak in most markets. It is also difficult today for households to borrow against the increase in wealth that came through rising asset prices.

---

<sup>2</sup> We should point out that other factors are also at work here beyond just low interest rates.

- Ultra-low interest rates appear to have prompted additional capital flows to emerging markets, particularly into their bond markets. Purchases of emerging-market bonds by foreign investors totaled just \$92 billion in 2007 but had jumped to \$264 billion by 2012. This may reflect a rebalancing of investor portfolios and a search for higher returns than were available from bonds in advanced economies, as well as the fact that overall macroeconomic conditions and credit risk in emerging economies have improved. In some developing economies, including Mexico and Turkey, the percentage increases in capital inflows into bonds have been even larger. Emerging markets that have a high share of foreign ownership of their bonds and large current-account deficits will be most vulnerable to large capital outflows if and when monetary policies become less accommodating in advanced economies and interest rates start to rise.

This paper is divided into five chapters. In Chapter 1, we provide a brief overview of central bank measures since the start of the financial crisis. Chapter 2 discusses the impact of central bank action on the interest income and expense of various sectors in advanced economies. In Chapter 3, we assess the effects of central bank action on asset prices and its impact on wealth and consumption. In Chapter 4, we examine the evidence that ultra-low rate monetary policies have prompted a surge in capital flows to emerging economies. Finally, in Chapter 5, we discuss the potential risks that may arise when interest rates begin to rise as well as if they remain at ultra-low levels.

## Related McKinsey Global Institute research



### Financial globalization: Retreat or reset? (March 2013)

Cross-border capital flows remain 60 percent below their pre-crisis peak, and growth in financial assets around the world has stalled. Continued retrenchment could jeopardize investment and recovery unless policy makers can “reset” the financial system for a healthier flow of financing that supports economic growth.



### Debt and deleveraging: Uneven progress on the path to growth (January 2012)

Reducing debt in mature economies continues to be a long and slow process. But lessons of history show that with the right reforms during deleveraging, countries can return to robust long-term growth.



### The emerging equity gap: Growth and stability in the new investor landscape (December 2011)

Short of a very rapid change in investor behavior and adoption of new policies in the largest emerging economies, the role of equities in the global financial system may be reduced in the coming decade.



### Mapping global capital markets 2011 (August 2011)

The 2008 financial crisis and worldwide recession halted a three-decade expansion in global capital and banking markets. Today, growth has resumed, fueled not only by expanding developing economies but also by a \$4.4 trillion increase in sovereign debt.



### Farewell to cheap capital? The implications of long-term shifts in global investment and saving (December 2010)

By 2020, half of the world's saving and investment will take place in emerging markets, and there will be a substantial gap between global investment demand and the world's likely saving.



### Debt and deleveraging: The global credit bubble and its economic consequences (January 2010)

The recent bursting of the great global credit bubble has left a large burden of debt weighing on many households, businesses, and governments, as well as on the broader prospects for economic recovery in countries around the world. If history is a guide, one would expect many years of debt reduction, which would exert a significant drag on GDP growth.

[www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)

E-book versions of selected MGI reports are available at MGI's website, Amazon's Kindle bookstore, and Apple's iBookstore.

Download and listen to MGI podcasts on iTunes or at [www.mckinsey.com/mgi/publications/multimedia/](http://www.mckinsey.com/mgi/publications/multimedia/)

McKinsey Global Institute  
November 2013  
Copyright © McKinsey & Company  
[www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)

 @McKinsey\_MGI

 McKinseyGlobalInstitute