## **Allianz Global Investors White Paper Series**

# Under the Macroscope

The painful journey away from the extremes



Steven R. Malin, Ph.D. Director Investment Strategist US Capital Markets Research & Strategy

# **Executive summary**

Financial and currency market turmoil since the US Federal Reserve's December 16 decision to increase its policy rates raises important questions about the judgment, motives and abilities of the US central bank. Back in early February, Neil Dwane, Allianz Global Investors Global Strategist, a central-banking skeptic, challenged me with a series of questions about the actions of central banks and the efficacy of unconventional monetary policies. Why not? Earlier in my career, I spent more than 16 years as an officer of the New York Fed under three different bank presidents.

This paper presents that set of questions and my edited responses. Though not an apologist for the Fed, I conclude that the central bank has to balance its need to raise interest rates toward more normal levels with the prospect that doing so will roil financial and currency markets and bring the economy closer to recession.

Fed policies have diverged from those of other central banks. Apparently, the Fed concludes that implementing even more extreme policy measures presents unacceptable risks. Eventual movement back toward normalcy likely will prove extremely painful to both the economy and the financial markets. Meanwhile, the pain tolerance of central bankers and market participants is low.

## **Key takeaways**

- To the extent they can, global central banks would prefer to raise rates back to more normal levels. Present conditions simply will not allow them to do so.
- Uncertainty over actions by the Fed has made financial markets edgy. Many market participants fear that the
  extremes of monetary policy that drove bond and stock prices to record levels will be reversed, even if the Fed
  reduces monetary accommodation just a little bit at a time.
- As policies became more extreme, the outcomes in financial markets went to excesses never seen before.
   Domestic output growth, however, did not move to excesses. These outcomes may suggest that neither monetary nor the fiscal policy tools have much ability left to again affect economic outcomes meaningfully.
- Clearly, the Fed knew that the initial steps to reverse extreme distortions and excesses always lead to unanticipated market reactions and performance. However, it could not know in advance the full scope of those reactions.
- Monetary policy that works through financial channels must have the compliance of Wall Street, but that compliance does not imply that the Fed makes policies motivated principally by the best interests of "Wall Street."
- Sometimes, care and nurturing of international conditions brings what is best for the US; other times, unilateral steps must be taken, recognizing that there will be fallout elsewhere, including the emerging markets.
- Movement away from a policy regime driven through financial channels (rather than economic channels) leads to distortions that cannot be fully anticipated ex ante.
- US policymakers learned a long time ago that market sentiment cannot be an enduring driver of monetary policy.
- The next 10 to 20 years may well be characterized by a resurgence of the developed-market economies and their recapture of global growth from emerging economies.
- If the choice now is either to take risk or not to take risk, empirical evidence suggests they we should be "risk on," though the perceptions of market participants continue to grow more and more pessimistic. As always, we counsel clients to be especially prudent when taking risks.



**Neil Dwane (ND):** To what extent does Allianz Global Investors support the conclusion offered by several well-known economists that the bond market is underestimating the amount of monetary normalization that we're likely to see?

**Steve Malin (SM):** Global central banks, and the US Federal Reserve (Fed) especially, typically prefer to operate with interest rates at more neutral, or more normal, levels than exist right now. Since December, several Fed governors have talked about the need to move market sentiments and risk perceptions away from every last thing they do and say, and move the focus back to the actions of the individual institutions and the financial system itself.

However, present conditions simply may not allow the Fed and other central banks to raise rates. Currently, US economic performance

remains mixed at best, with key economic variables telling different stories (See Exhibits 1 and 2). Continued risk aversion, preference for havens, signs of lost momentum among recent growth-equity leaders and so many other factors suggest that downward pressures on interest rates, even in the US, will remain formidable for some time to come.

Meanwhile, statements by several Fed policymakers, and those by Bank of England Governor Mark Carney, European Central Bank President Mario Draghi and Bank of Japan Governor Haruhiko Kuroda, suggest that some prominent central bankers anticipate continued economic dullness, with limited upward inflation potential. Indeed, some central bankers hint that if their countries' economies contract, further rates reductions may be necessary, in some cases taking policy rates further below 0%.

#### **Statements of Official Central Bank Policies**

"In order to make the euro area more resilient, contributions from all policy areas are needed. The ECB is ready to do its part. As we announced at the end of our last monetary policy meeting in January, the Governing Council will review and possibly reconsider the monetary policy stance in early March...we will not hesitate to act."

Mario Draghi, President – European Central Bank, February 15, 2016

"Some people are concerned that China will allow the yuan to depreciate in a bid to boost exports and GDP growth, which might intensify the so-called currency war. If one has a closer look at China's current account balance, he will find that in 2015 goods trade surplus was close to US\$ 600 billion and net exports' contribution to GDP was fairly high."

Zhou Xianochuan, Governor – People's Bank of China, February 15, 2016 Transcript of interview with Caixin Magazine

"Recently, however, global financial markets have been volatile against the backdrop of the further decline in crude oil prices and uncertainty such as over future developments in emerging and commodity-exporting economies, particularly the Chinese economy. For these reasons, there is an increasing risk that an improvement in the business confidence of Japanese firms and conversion of the deflationary mindset might be delayed and that the underlying trend in inflation might be negatively affected."

Haruhiko Kuroda, Governor – Bank of Japan, January 29, 2016

"The appropriate horizon for returning inflation to the target will depend on the trade-off the MPC faces between the speed with which this can be achieved and the consequences of doing so for output and employment. That trade-off depends on the nature of the disturbances that caused inflation to deviate from the target in the first place."

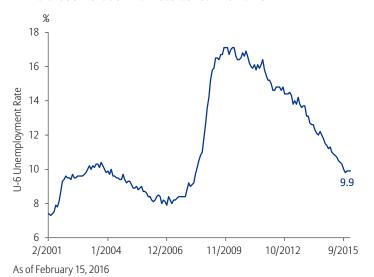
Mark Carney, Governor – Bank of England. Letter to George Osborne – Chancellor of the Exchequer, November 5, 2015

"The economy continues to strengthen but inflation is expected to be lower during 2016 than previously forecast. The period of low inflation will therefore be longer. This increases the risk of weakening confidence in the inflation target and of inflation not rising towards the target as expected. To provide support for inflation so that it rises and stabilises around 2 per cent in 2017, the Executive Board of the Riksbank has therefore decided to cut the repo rate by 0.15 percentage points to -0.50 per cent."

Sveriges Riksbank statement, February 11, 2016.

Exhibit 1: Some labor market slack still remains

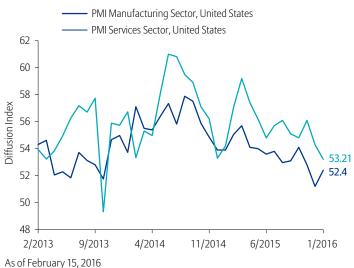
Source: FactSet, Allianz Global Investors.



Until central bankers can be comfortable that actual and expected economic growth and inflation (measured across a broad array of market-, survey- and macro-based data) show convincing signs of accelerating, they will be hard-pressed to pull away from their current accommodative stance. Similarly, examinations and stress tests of banks, as well as measures of labor market slack, also must suggest that a rate increase would not be disruptive over the medium to long term.

We believe that these conditions may soon be in place in the US. The Allianz Global Investors base-case forecast calls for the Fed to increase its policy rates again before the end of the year. However, since the Fed's decisions will be "data-dependent," we do not rule out the possibility that fewer rate hikes may be in store (See Exhibit 3).

Exhibit 2: US economic growth fraying?



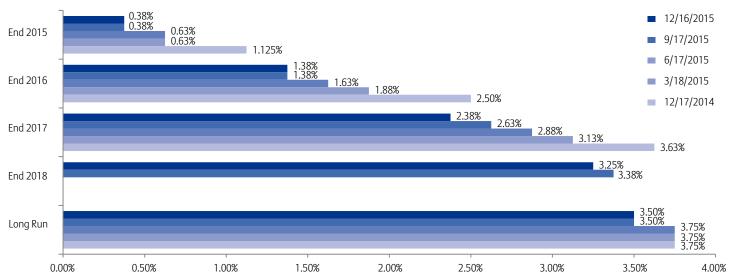
Source: FactSet, Allianz Global Investors.

Following every Federal Open Market Committee (FOMC) meeting, we will continue to monitor the FOMC's so-called "dot plot" for indications of how individual US policymakers see the appropriate path of monetary policy unfolding. Participants in the federal funds futures market overwhelmingly anticipate either one rate hike or none in 2016, based on the price of futures contracts.

**ND:** To what extent has uncertainty about the US monetary policy outlook destabilized financial markets?

**SM:** Uncertainty over actions by the Fed has made financial markets edgy. Since the December 16 FOMC policy-rates increase, many market participants seem to fear that the extremes of monetary policy that drove bond and stock prices to record levels will be reversed, even if the Fed reduces monetary accommodation just a little bit at a time.

Exhibit 3: Median year-end Fed funds rate projection (per the FOMC "Dots")



As of December 16, 2015

Source: US Federal Reserves, Allianz Global Investors.

#### **Exhibit 4: Inflation expectations remain nil**



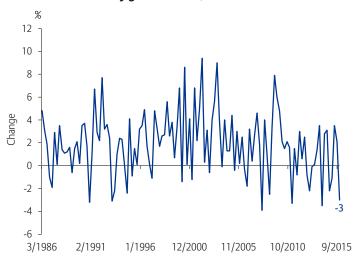
Source: US Federal Reserve, Allianz Global Investors.

Investors and speculators are acting as though they believe that, if monetary accommodation facilitated bullish stock and bond market performance, then less accommodation would turn those markets bearish. Any hint, actual or imagined, that the FOMC might raise interest rates roils markets, sometimes for several days at a time.

Such fear is exaggerated. The Fed has stated repeatedly the preconditions to the gradual removal of monetary accommodation: shrinkage in labor market slack; inflation and inflation expectations rising toward at least 2% annualized; confidence in the safety and soundness of the financial system; stability and orderliness of international economies and financial markets; and stability in the foreign exchange value of the US dollar (See Exhibit 4). The FOMC will raise rates only if it has reasonable assurance that doing so sets conditions conducive to the achievement of maximum, sustainable real economic growth, with stable prices and financial markets.

However, the Fed also is data-dependent and the outlook for each of its rate-hike preconditions cannot be known in advance. Thus, investors

Exhibit 5: Productivity growth weak, but variable



As of February 19, 2016. Source: FactSet, Allianz Global Investors. and speculators draw conclusions based upon communications by FOMC members and the performance of high-frequency data, relative to the Fed's stated policy-adjustment preconditions. Often, those conclusions turn out merely to be based on guesses.

**ND:** Why didn't the unconventional policies and actions of central bankers in developed economics stimulate more real economic growth?

**SM:** US quantitative easing (QE) and similar policies elsewhere in the world attempted to fight the global financial crisis by working principally through interest-rate, portfolio-balance and currency channels. As policies became more extreme, the outcomes in financial markets went to excesses never seen before; currencies also moved dramatically. Five developed-market central banks drove their policy rates below 0% while adding vast amounts of reserves to their respective banking systems.

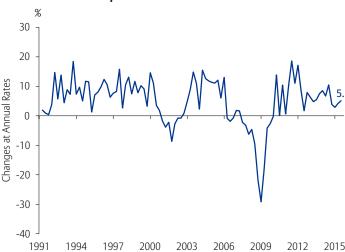
Domestic output growth, however, did not move to excesses. Instead, expanding global competition, as well as radical changes in technologies, demographics and balance-sheet management techniques dampened output expansion. Productivity sagged, income disparities widened and consumers paid down debt while also increasing saving rates (See Exhibit 5). An anticipated surge in consumer spending in response to low interest rates and oil prices never materialized fully. Capital expenditures remained weak as a consequence (See Exhibit 6).

These outcomes may suggest that neither monetary tools nor fiscalpolicy tools have much ability left to again affect economic outcomes meaningfully.

True, Brexit, Grexit, Syrian migration, nationalist movements and other international developments weigh on business confidence. These developments have curtailed capital-expenditure plans by businesses and led to more conservative management of balance sheets by households.

Yet the growing sense that increasingly bold policies will be ineffective at the margin may be the most important factor draining confidence

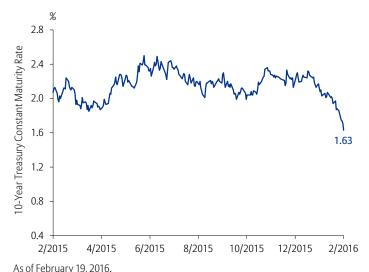
## Exhibit 6: Modest capex



As of February 15, 2016.

Source: FactSet, Allianz Global Investors.

#### Exhibit 7: Did Fed roil bond market?



AS OF FEDILIARY 19, 2016.

Source: Federal Reserve Bank of St. Louis, Allianz Global Investors.

from households, businesses and investors. Ironically, this sense flies in the face of fears that another Fed rate hike will tighten monetary and credit conditions prematurely and, perhaps, set the stage for a recession. Behavioral finance is amazing!

**ND:** In a major and lengthy commentary, an experienced writer at *The Wall Street Journal* blames recent global market disruptions almost exclusively on the December 16 Fed rate hike. Is the commentator correct?

**SM:** Without a doubt, the rate hike played a role in subsequent market disruptions. The Fed's action set in motion the repricing of relative exchange rates, stocks and bonds. In addition, it resulted in shifts in capital flows between nations and altered expectations for inflation, real economic growth and financial-market performance.

However, *The Wall Street Journal* commentator also commits the classic post hoc ergo propter hoc fallacy.¹ Like most analysts, including many within the Fed itself, the commentator did not foresee all dimensions of the market disruption associated with the Fed's December 16 action. Clearly, the Fed knew that the initial steps to reverse extreme distortions and excesses always lead to unanticipated market reactions and performance. However, it could not know in advance the full scope of the disruption. Perhaps it should have, but I can't see how.

Nonetheless, market behavior since December 16 provides a clear reminder that reversion processes are complicated and can unravel the foundations for short-term market gains quickly, often in disorderly ways (See Exhibits 7 and 8).

Some central banks that have applied QE and moved policy rates into negative territory—with only modest benefits to date—appear

## **Exhibit 8: Did Fed roil short-term note market?**



As of February 19, 2016

Source: Federal Reserve Bank of St. Louis.

to be contemplating expansion of QE and even more negative interest rates. Perhaps a stronger policy response will successfully enable these central banks to fulfill their mandates more readily than they can now. On the other hand, by making their policy stance even more extreme, they increase the likelihood that eventual reductions in monetary easing will be more painful, more disruptive and, perhaps, recessionary.

**ND:** In this political season in the US, several candidates have asserted that the Fed is "owned by Wall Street" and does not "care about the pain inflicted upon the emerging markets by the US dollar's strength." Are they right?

**SM:** I am not so naive as to think that the Fed does not take notice of what Wall Street is thinking. Indeed, I sat through too many morning meetings at the New York Fed with Wall Street executives, traders and others to contend that their point of view is not heard.

However, I also worked under three New York Fed presidents, including one who eventually went to one of the largest US banks and another who eventually accepted a senior post at a private equity firm.<sup>2</sup> During their presidencies, I never, ever, ever heard or saw anything to suggest that they were patsies for the best interests of Wall Street. Quite the contrary—all three of these New York Fed presidents had heads of supervision, and regulation clamped down very hard on the misdeeds of banks. A monetary policy that works through financial channels must have the compliance of Wall Street, but that compliance does not imply that the Fed makes policies motivated principally by the best interests of Wall Street.

As for not caring about the pain a strong US dollar inflicts on emerging markets, my sentiment is much the same. Of course the Fed cares!

<sup>1.</sup> From the Latin, the post hoc ergo propter hoc fallacy translates into "after this, therefore because of this." Simply stated, it is a fallacy to assume that when two events occur sequentially, the second event was caused by the first event. Thus, if I slam a door and you then spill your coffee, it is a fallacy to say that the slammed door caused the coffee spill.

<sup>2.</sup> Between 1990 and 2007, Steven Malin was an officer of the Federal Reserve Bank of New York, serving under Presidents Gerry Corrigan, William McDonough and Timothy Geithner.

#### **Exhibit 9: King dollar?**



As of February 19, 2016 Source: FactSet, Allianz Global Investors.

However, every policy action will result in gainers and losers. (Just think: Low interest rates helped equity investors, but hurt small savers). (See Exhibit 9).

The judgment to be made by the Fed, therefore, must involve what is best for the well-being of the largest number of individuals, businesses and other entities in the US for the longest period of time. Sometimes, the care and nurturing of international conditions brings what is best

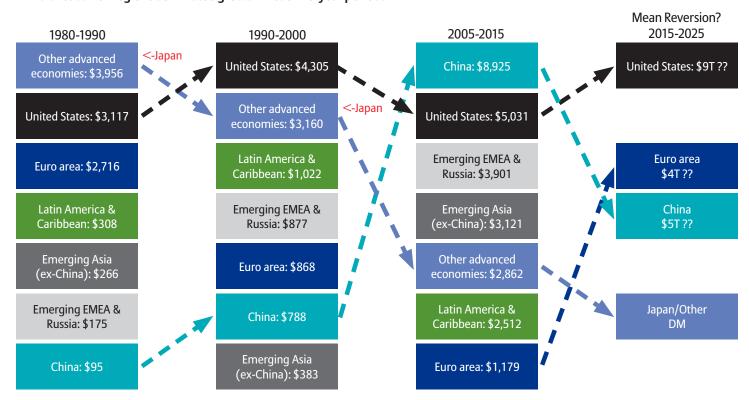
for the US; other times, unilateral steps must be taken, recognizing that there will be fallout elsewhere, including the emerging markets (See Exhibit 10).

When policy actions, such as raising interest rates, can be delayed temporarily in order to accommodate emerging-market central bankers, the Fed often has waited. Such was the case several times in the 1990s, for example. However, given the Fed's mandate, it cannot postpone needed policy actions indefinitely, even if such actions may not work in the best interests of other countries.

So before the FOMC raised policy rates in December, you can be certain that its intentions were discussed with International Monetary Fund Managing Director Christine Lagarde and Messrs. Carney, Draghi and Kuroda, plus dozens of others, including leaders from emerging-market countries. Their inputs were weighed and measured. (Mme. Lagarde disfavored a Fed rate hike, Mr. Draghi did not, at least publicly). Central bankers from the Group of 30—a consultative group composed of academics and financiers whose goal is to facilitate understanding of financial and economic issues in the private and public sectors—meet at the Bank for International Settlements in Basel, Switzerland every two months; its members talk with each other and they respect each other's point of view. However, every action cannot have winners only, so the best interests of the US had to prevail at the December 16 FOMC meeting.

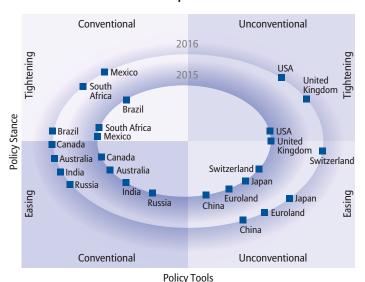
But not caring about the emerging markets? That is way too harsh and not likely to reflect the truth.

Exhibit 10: Which regions dominated growth in each 10-year period?



Since 1980. 10-year change in nominal GDP (converted to USD). From IMF data. Source: Fundstrat, FactSet, Bloomberg, IMF.

Exhibit 11: Central bank landscape - 2015 vs. 2016



Source: Allianz Global Investors, as of December 2015

**ND:** Why do investors care about the divergence in monetary policies among the most prominent central banks?

**SM:** On December 16, the Fed raised its policy rates by 25 basis points. Although the magnitude of the action did not have a material impact on the demand for and supply of credit, it did have symbolic significance. By raising policy rates, the Fed signaled to markets around the world its intention to gradually push US interest rates toward a more normal level consistent with price stability; maximum, sustainable real economic growth; and financial market stability.

However, by widening the spread between US interest rates and those elsewhere, capital flows to the US increased, the US dollar strengthened, oil prices fell further and both actual and expected US inflation rates sagged. Investors almost immediately began to focus on when the next rate hike would take place, an action that they read as bearish.

Meanwhile, as 2016 began, other members of the community of central banks took a wide variety of different paths in order to achieve their monetary-policy objectives. On the whole, most central banks chose to leave monetary policy highly accommodative for the foreseeable future (See Exhibit 11).

Five central banks already have policy interest rates below 0% and more than one-fourth of all European bonds have negative interest rates, as well. Still, real economic growth remains dull, at best, and further downward pressure remains on already record-low interest rates (See Exhibit 12). As time goes by, investors will focus increasingly on the potential ramifications of both further downward adjustments of interest rates, as well as what might happen when those rates start to rise. This uncertainty keeps investors on edge.

Finally, divergent policies highlight an uncomfortable lack of global policy coordination. Mme. Lagarde campaigned hard to sustain coordination, but she did not succeed. During the previous four rate-hike cycles, the Fed and other major central banks also raised rates. Lack of policy coordination facilitates unpredictable international capital flows and both currency and financial-market volatility. Even more, it can force some central banks to adjust monetary policy prematurely, simply to defend their currencies, alter capital flows and/or offset impacts on the level of prices, perhaps at the expense of mandated macroeconomic goals.

**ND:** Some economic historians evaluating the impact of negative interest rates point to the experience of Sweden's central bank, the Riksbank. A recent analysis concluded that "The Riksbank...took it upon itself to allow concerns about financial stability to affect decisions on monetary policy." Essentially, after markets reacted very negatively to policy-rate increases, the Riksbank reversed course and pushed policy rates deeper and deeper into negative territory. What can we learn from Sweden's experience?

**SM:** Central bankers anywhere in the world can carry out their mandates successfully only if they retain their credibility. In its absence,

Exhibit 12: Central banks with negative policy rates



As of February 16, 2016 Source: Federal Reserve, Allianz Global Investors. market uncertainty rises and investors, savers and speculators become prone to mistakes—mistakes that, at times, will cause or exacerbate market instability.

During the global financial crisis, central banks took unprecedented actions and implemented tools that had never been used. They did this to extremes never before imagined and created massive market distortions. Central banks were fighting a fire and could not reasonably worry about the damage that would be done by the firefighters' water. None of this is news.

However, what we are learning now is that movement away from a policy regime driven through financial channels—rather than economic channels—leads to distortions that cannot be fully anticipated ex ante. US QE and similar policies elsewhere work mainly through the financial side of the circular flow diagram, so anything that affects those flows will get a bigger market reaction than would come from economic developments (See Exhibit 13).

We know, as well, from the Riksbank experience, that financial-system reversion toward normalcy, or neutrality, likely will be more painful than wringing excesses out of an economy. As we plan asset allocations, we need to consider, therefore, the Fed's tolerance for such pain. (We already know that financial-market participants have a low pain threshold).

The Riksbank did not have a high pain tolerance and was forced to come full circle—driving interest rates down toward zero, raising them later, and then dropping them below zero when markets convulsed. In effect, the central bank of Sweden capitulated to market pressures.

In the US, the Fed may have to confront a similar set of circumstances if economic growth does not soon accelerate; inflation does not anchor at, or approach, the FOMC's target level; and the safety and soundness of the financial system appears to be at risk.

Investors have to determine whether the Swedish experience provides an enduring example for a much larger, more systemically important country like the US. We believe that it does—and that it will be an important discussion point at FOMC meetings whenever market sentiment turns decisively against policy-rate increases.

However, the Fed cannot wait forever to bring interest rates toward neutral. If the US economy continues to grow, inflation shows meaningful signs of accelerating, the international financial and currency markets behave in an orderly fashion, and the financial system appears to be relatively safe and sound, the FOMC likely will send unambiguous signals to the markets that another rate hike is coming—and they'll do what they hint. In the absence of all of those conditions, though, the Fed will be forced to wait.

Finally, US policymakers learned a long time ago that market sentiment cannot be an enduring driver of monetary policy. Policymakers monitor, measure and try to mitigate market sentiments through communications, but they cannot be guided by them. Markets generally overshoot when reverting and markets typically have volatility. Central banks must factor these phenomena into their thinking.

However, they also must do what is in the best interest of the largest number of individuals and institutions for the longest time period, even at the cost of distasteful market reactions. Rate hikes always bring unpleasantness, but central bankers do not have the privilege of avoiding that unpleasantness forever. Just ask Paul Volcker, circa 1979 to 1982, who, in the midst of severe stagflation, largely stopped the money supply from growing and allowed short-term interest rates to rise to over 20%.

**ND:** Leaving the impact of US monetary policy aside, can you identify a potential long-term economic problem among emerging-market economies that has received little attention by analysts, investors and the media?

**SM:** The remarkable expansion of emerging-market economies over the past 25 years resulted in, perhaps, the greatest transfer of wealth from one set of nations (those with developed economies) to another set of nations (emerging economies). This wealth transfer exceeds even the remarkable redistribution of wealth beginning in 1973 from oil-importing to oil-exporting nations.

Wealth transfer to emerging economies focused on trade in industrial and agricultural commodities and the movement of manufacturing to where output could be produced more cheaply. Much of the manufacturing involved low value-added, labor-intensive processes developed toward the middle of the 20th century.

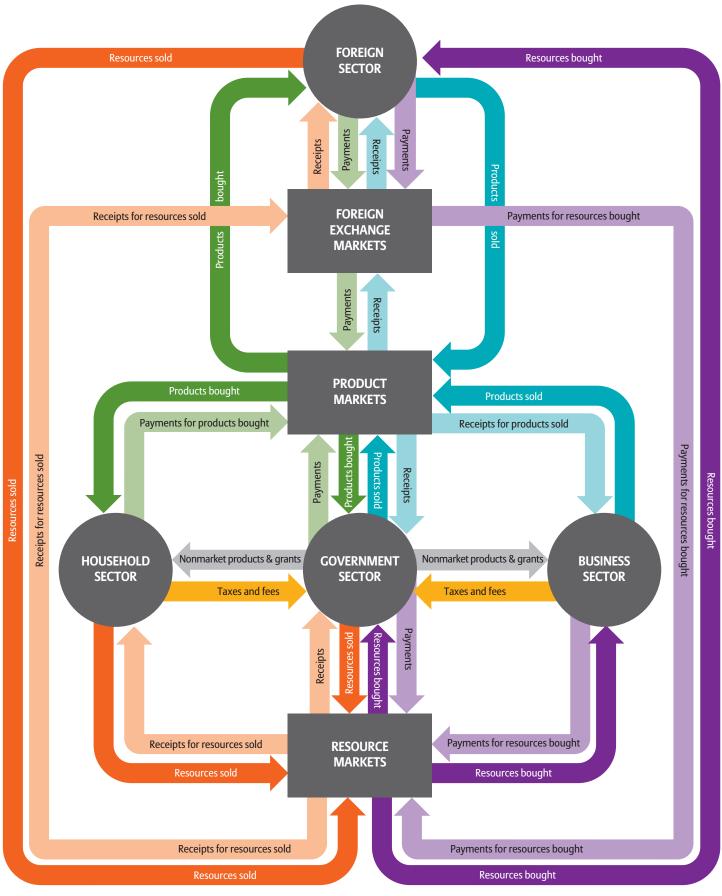
However, the drivers of emerging-market growth may be fading as the "fourth industrial revolution," a term used frequently at the 2016 World Economic Forum, continues to unfold.

Modern technologies, materials, industrial designs, modes of transportation and communications, and production processes require fewer inputs of industrial commodities, less energy, and more advanced technologies, platforms and systems. Some emerging markets, particularly those with relatively small economics built around the needs and the processes of the 20th century, may be ill-equipped for this transformation. They may find themselves unable to compete with developed-market economies where the fourth industrial revolution is well under way.

What is more, a rash of structural problems beset some emerging-market countries, some of which still have legal, regulatory and financial systems that have not adapted to present-day contingencies. In some places, unstable governments and social unrest also get in the way of economic transformation. Most importantly, most emerging economies on their way up failed to diversify their industrial mix, relying on one or a few industries or sectors for real economic growth. They became one-trick ponies.

History is dotted with countries and cities that eventually went into decline when their lead industry faded away. Look at cities like Manchester, England; Pittsburgh, Pennsylvania; Lowell, Massachusetts; and Rochester, New York, places whose industrial base did not keep up with evolving industrial changes. Pittsburgh, a thriving city today, managed to transform its economy from one based on steel

Exhibit 13: The circular flow



Source: Allianz Global Investors

production to one based on modern medical and financial services; some emerging-market countries, like South Korea, for example, already have done likewise. Manchester, Lowell and Rochester never transformed their economies and have languished for decades; countries like Venezuela and South Africa may face a similar fate.

As a consequence, the next 10 to 20 years may well be characterized by a resurgence of the developed-market economies and their recapture of global growth from emerging economies. The outcome will depend largely upon the willingness and ability of emerging-market countries to change their business model, make structural reforms, build 21st century infrastructure and educate their work force with up-to-date skills. Some will make the necessary transformations and compete meaningfully in the global economy; others will not.

## **ND:** What do uncertain investors typically do?

**SM:** Well, uncertain investors typically increase their cash holdings, flood to the safest sovereign-debt securities (e.g., Treasuries), move into haven currencies (e.g., JPY) or, if they stay invested, migrate toward the "safest" stocks (the ones that remain on a strong, positive uptrend). This is exactly what transpired over the past year.

As one example, prices of high-momentum stocks increased strongly in 2015 as investors bought up the shares of companies outperforming the broad market indexes by wide margins. Investors largely shunned "junk" and chose instead to own shares of companies with sales growing at an accelerating rate. By late in 2015, fixed-income investors turned away from high-yield bonds and toward US Treasuries and the highest-rated corporate bonds. Just look at the recent widening of spreads in the high-yield bond market as a signpost of aversion to risk.

Such behavior typically occurs when the cyclical performance of the economy is sluggish. Eventually, however, as purchasing-manager indexes turn upward and cyclical performance of economies improves, the high-momentum stocks turn sharply downward. That is when the value investors usually swoop in and help to create a market driven more by fundamentals, a market with wider dispersion of performance between the top- and bottom-performing securities.

**ND:** Given the volatility in markets recently, do you recommend that investors be "risk on" or "risk off?"

**SM:** If the choice is to take risk or not to take risk, empirical evidence suggests we should be "risk on," though the perceptions of market participants continue to grow more and more pessimistic. We will continue to monitor closely the momentum of the US economy, as well as leading economic indicators that can foretell imminent cyclical turning points toward, perhaps, a recession. In this environment, our investment strategy has moved from buying on the dips to selling on the strengths.

As always, we counsel clients to be especially prudent when taking risks. This means that investors must have reasonable confidence that they will get paid sufficiently for their exposures and can liquidate positions in a timely way, even in stressed markets. Investors also must be confident that they can withstand the anxiety that accompanies volatility, so the risks taken should be conducive to smoothing returns, not exacerbating their volatility. Exposures should come at a reasonable price, or valuation, and be consistent with investors' time horizons and savings and returns objectives

### About the author

Steven R. Malin, Ph.D.
Director, Investment Strategist
US Capital Markets Research & Strategy

Mr. Malin is an investment strategist and a director with Allianz Global Investors, which he joined in 2013. As a member of the US Capital Markets Research & Strategy team, he is responsible for making weekly US and global asset-allocation recommendations. Mr. Malin's responsibilities also include analyzing global economic, financial, political and regulatory developments; and briefing institutional, retail and retirement clients. He has 25 years of financial-markets, central-bank and investment-industry experience. Before joining the firm, he was the director of research at Wealthstream Advisors, a private wealth management firm; and an advisor to Aronson Johnson & Ortiz, a quant-based institutional equity manager. Earlier, Mr. Malin was a senior portfolio manager at AllianceBernstein, serving institutional, sub-advisory, Taft-Hartley and private clients throughout North America. He also worked at the Federal Reserve Bank of New York for more than 16 years, and during this time he was an officer who held several senior positions, including senior economist, media relations officer, vice president in the communications group and corporate secretary. Before that, Mr. Malin was the senior economist, founder and director of the regional economics center at The Conference Board. He also taught graduate and undergraduate macroeconomics and risk-management courses at Barnard College-Columbia University and the City University of New York. Mr. Malin has a B.A. in economics from Queens College and a Ph.D. in economics from the Graduate Center of the City University of New York.

Past performance is not indicative of future results, which may vary. There is no guarantee that any opinion, forecast, or objective will be achieved. The information herein is provided for informational purposes only and should not be construed as a recommendation of any security, strategy or investment product, nor an offer or solicitation for the purchase or sale of any financial instrument.

References to indices, benchmarks or other measures of relative performance are provided for your information only. References to such indices do not imply that managed portfolios will achieve returns, or exhibit other characteristics similar to the indices. Index composition may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, sector exposure, correlations, or volatility, all of which are subject to change over time. Unless otherwise noted, equity index performance is calculated with gross dividends reinvested and estimat-

ed tax withheld, and bond index performance includes all payments to bondholders, if any. Index calculations do not reflect fees, brokerage commissions or other expenses of investing. Investors may not make direct investments into any index. Index data contained herein (and all trademarks related thereto) are owned by the indicated index provider, and may not be redistributed. The information herein has not been approved by the index provider.

This material contains the current opinions of the author, which are subject to change without notice. Statements concerning financial market trends are based on current market conditions, which will fluctuate. Forecasts are inherently limited and should not be relied upon as an indicator of future results. References to specific securities, issuers and market sectors are for illustrative purposes only. The asset and industry reports contained herein are unaudited. The summation of dollar values and percentages reported may not equal the total val-

ues, due to rounding discrepancies. Unless otherwise noted, Allianz Global Investors U.S. LLC is the source of illustrations, performance data, and characteristics.

© 2016 Allianz Global Investors U.S., LLC. WP-26 | AGI-2016-03-01-14639 | 01467

