2016
1ST QUARTER
QUARTERLY COMMENTARY

ANGELES INVESTMENT ADVISORS
429 SANTA MONICA BLVD, SUITE 650
SANTA MONICA, CA, 90401

PHONE: 310.393.6300
FAX: 310.393.6200

www.angelesadvisors.com

Angeles
INVESTMENT ADVISORS

Foundations

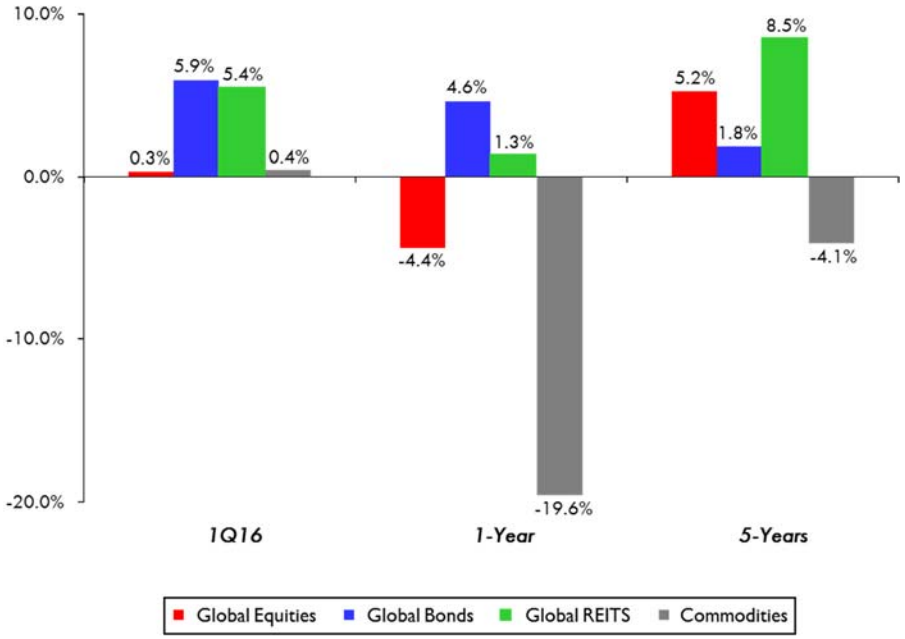
Some of the most impressive accomplishments in human history were born of vanity, some rose from sheer curiosity, some were driven by commerce, others by necessity. More than 4,500 years ago the Pharaoh Khufu ("Cheops" as the Greeks called him) built (rather, had slaves build) the Great Pyramid in Giza to ensconce his remains. A simple tombstone would not do for the great Pharaoh. For nearly four millennia it was the tallest structure in the world, the only of the Seven Wonders of the ancient world that has survived.[1] Its ratio of perimeter-to-height[2] is almost precisely 2π, suggesting that the Great Pyramid was not slapped together, but rather well-planned.[3]

Human curiosity about the Final Frontier led to the construction of the International Space Station, beginning in 1998, a remarkable engineering success, and the only man-made object in space visible with the naked eye. Previous transportation projects were primarily propelled by the prospects of profit.[4] The Transcontinental railroad, completed in 1869, traversed nearly 2,000 miles across the United States, from Council Bluffs,

[1] Prizes for those who named the other six: the Colossus of Rhodes, the Lighthouse of Alexandria, the Mausoleum at Halicarnassus, the Temple of Artemis, the Statue of Zeus and the Hanging Greens.
[2] 1760 cubits by 280 cubits.
[3] There is no evidence that the ancient Egyptians knew of the value or the concept of π; that would come more than 2,000 years later in the work of Archimedes. But it's possible, through experience, they "knew" the ratio worked in construction, without knowing why.
[4] Sorry, I got a little carried away with alliteration.

Iowa to Oakland, California. The Trans-Siberian Railroad, completed in 1916, is three times as long, connecting Moscow with Vladivostok. The Panama Canal (1914) spanned only 48 miles, but stubbornly thwarted for decades every serious effort to overcome both earth and disease.

Chart 1 **Capital Market Performance**



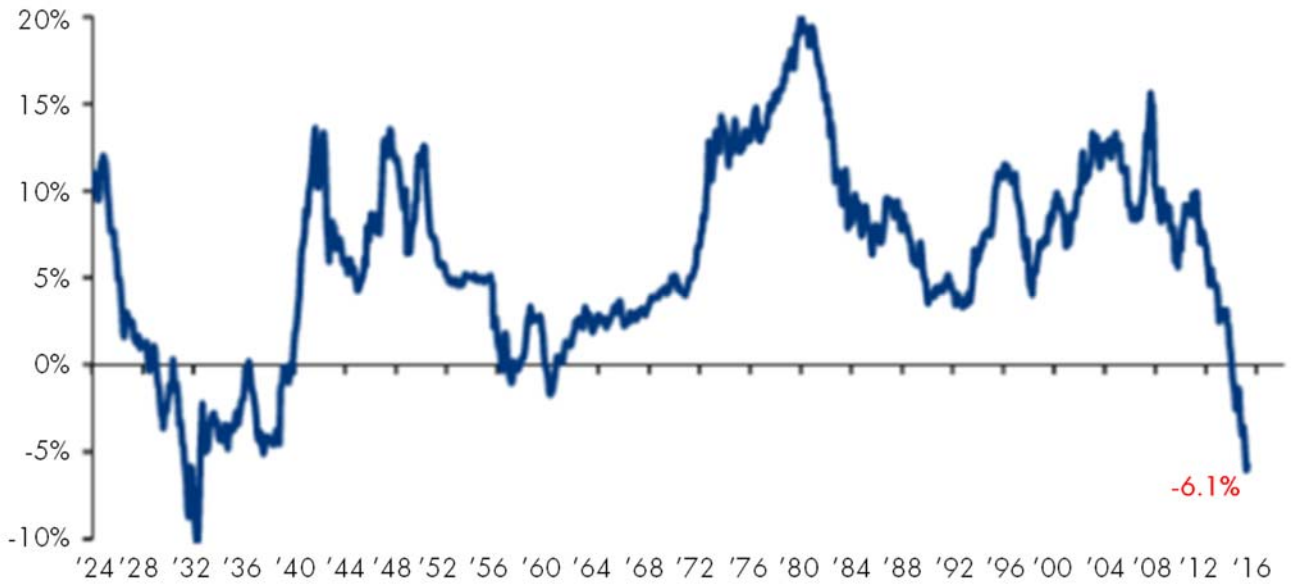
We marvel at these accomplishments, partly for the heroic physical efforts expended to complete them, but also for the extraordinary conceptual achievements by the engineers leading these projects. Whether driven by vanity, curiosity, protection (the Great Wall of China, for example) or profit, engineers had to visualize, design and then lead each project to completion, overcoming obstacles, both conceptual and real, along the way.

But not all great engineering feats are visible to us; many lay out of sight. And not all engineering challenges can be met with the resources at hand; a new approach is sometimes required. The build-out of an extensive rail system across the United States in the middle of the 19th century benefitted many villages and towns throughout the heartland of the continent, none more so than the city that was to be the central hub of this network. But before it could become one of the world's great cities, it was one of the world's most deadly cities, a public health disaster where thousands (approximating 5% of its population) were killed annually from various communicable diseases, such as cholera and dysentery, caused by untreated sewage and parasite-infested water literally flowing through its streets. Its savior would be a man who dropped out of school at the age of 13 when his father's business failed but, through experience and ingenuity, came to solve one of the greatest engineering challenges of the century.

Today, investors face a hostile world, one where the tools and resources we have traditionally used may not be sufficient to achieve our goals. We may have to channel some of the creativity of one of the greatest, and unheralded, engineers in history to help us.

Unhappy was how the new year began. In the first six weeks of the year, US equities fell more than 10%, Europe and EM were down nearly 20%, and oil touched $26/barrel. Natural gas fell to its lowest level ($1.611/mmBTU) since 1998. And then the flip switched, and markets soared. Global equities and commodities ended the quarter where they began, but it was a wild round-trip.

Chart 2 **Commodities rolling 10-year annualized returns, %**



Note: total return basis
Source: BofA Merrill Lynch Global Investment Strategy, Bloomberg, Global Financial Data (GDF)

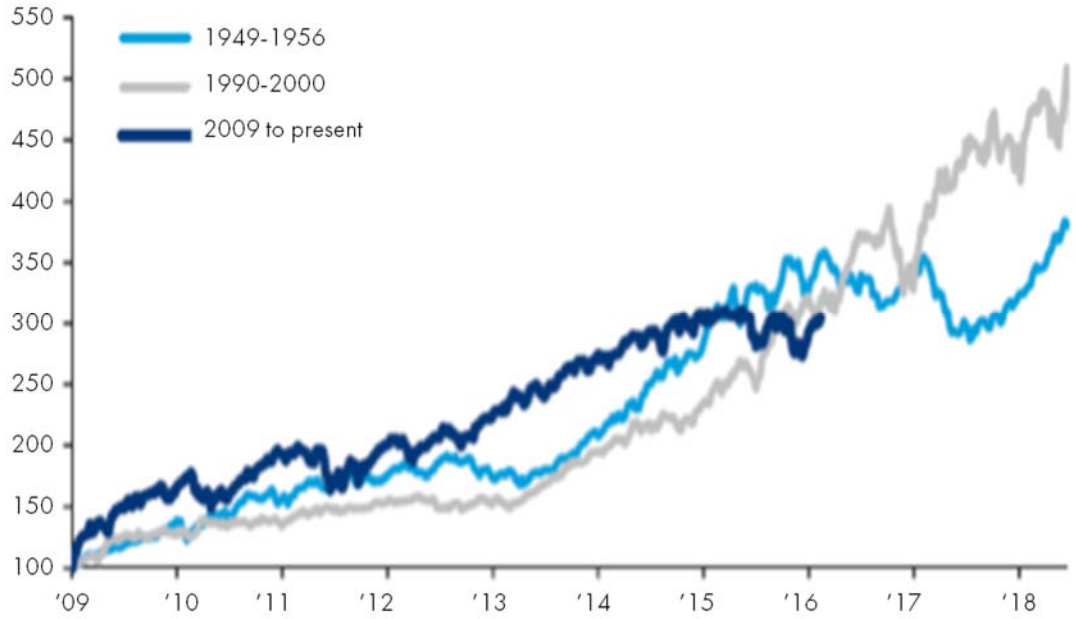
Some of the biggest winners in the first quarter were the biggest losers in 2015. Argentina rose 8% in the quarter, Poland and Thailand gained 15%, Colombia and Brazil jumped more than 20%, but each one of those countries is still down about 15% from a year ago. Nigeria was the big loser in the quarter, off 17%, contributing to its 28% decline over the past year. Greece lost another 12% to start the year, solidifying its spot as the worst market over the last twelve months, down 53%. Gold and tin both shined, up 16% in the quarter, and iron jumped 24% from depressed levels. Breakfast, though, should be getting cheaper, with cocoa off 8% and rice and oats dropping 15%.

Spot commodity prices are now lower than they were a decade ago, and commodity investors have suffered the worst ten-year return since 1933 (Chart 2). It may be tempting to call a bottom, but a new commodity bull market requires a catalyst: a demand shock, such as we saw with China devouring half of the world's commodities production for over a decade, or an inflation shock, such as experienced in the 1970s. At the moment, neither development looks imminent. Commodities are for traders, not for investors.

Equities have been hampered by slowing world growth, a drop in oil and a strong dollar. Consensus estimates of earnings growth for the first quarter were +11.7% at the beginning of the year, and have been lowered to -0.2%, the biggest downward revision since April 2009. Sales growth among S&P 500 companies fell 1.6% over the past twelve months, led by a 29% drop in energy sales; the rest of the S&P 500 companies saw modest growth of 2.1%. The jump in the dollar[5] negatively impacted foreign sales, making exports more expensive and reducing the value of foreign earnings in translation.

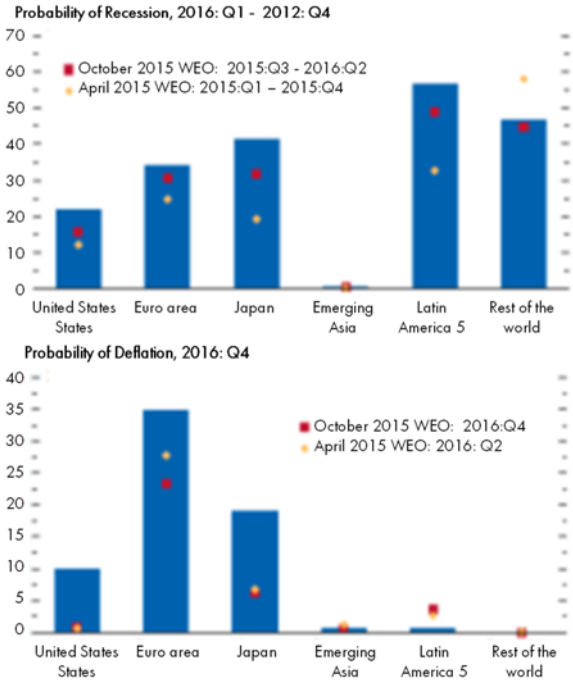
[5] The dollar rose 27% from May 2014 to March 2015.

Chart 3 **S&P 500 Performance, Normalized**



Source: BofA Merrill Lynch Global Investment Strategy, Bloomberg
Rebased to 100 as at the start of each equity bull market

Chart 4 **Probability of Recession, Deflation**



Source: IMF staff estimates

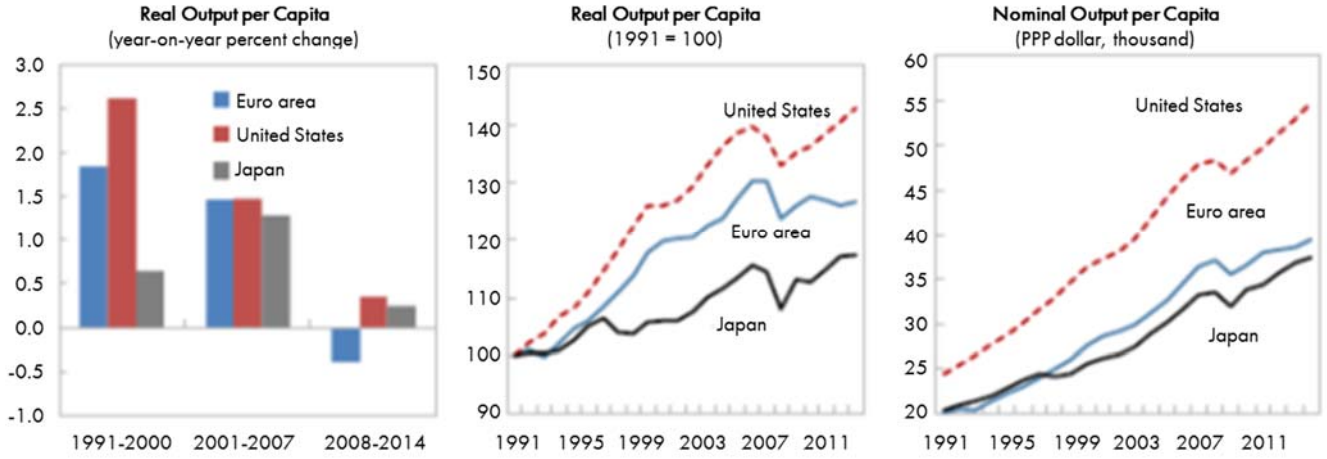
The quarter marked the seventh anniversary (March 9) of the bottom of the equity market, and by the end of April, the bull market is the second longest on record, at 2,607 days, surpassing the period of June 1949 to August 1956. Next in sight is the record, 3,452 days, from October 1990 to March 2000.[6]

But it's been a while since we saw new highs. Over the past two years, the S&P 500 has spent all but six trading days in a range between 1850 and 2150. This period of consolidation is similar to the 1949-56 bull market that paused and dipped before resuming its gains (Chart 3).

It doesn't feel much like a great bull market, partly because it has not been accompanied by strong economic growth. The probability of recession has risen steadily this past year, as have the odds of outright deflation, especially in the developed world (Chart 4). Europe and Japan have lagged the US in

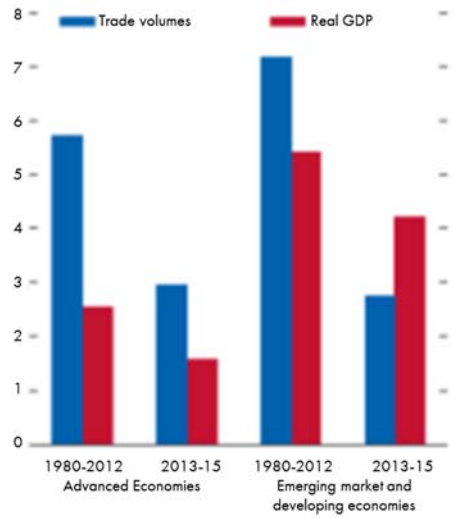
[6] Mark your calendar for August 21, 2018.

Chart 5 **Output in US, Europe, Japan, 1991-2015**



Source: World Economic Outlook; and IMF staff calculations

Chart 6 **Trade and Output Growth**



Source: IMF staff calculations

recovery, with Europe (just barely) exceeding its pre-crisis output only this quarter. In Europe, per capita output hasn't changed in over a decade, and nominal GDP per capita now trails the US by $15,000, the widest gap in probably 200 years (Chart 5).[7]

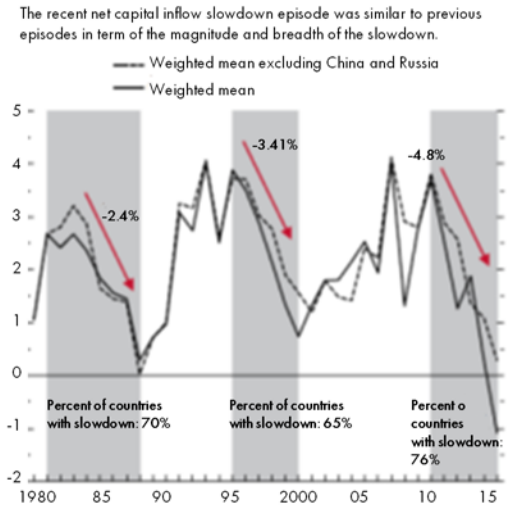
Trade has been a major catalyst to global growth, throughout history, and especially in the past few decades, when trade volumes rose much faster than the world economy. But trade has slowed dramatically in the past few years (Chart 6), particularly impacting developing economies. China, for example, has seen its exports plunge more than 20% (Chart 7).

Chart 7 **China export growth since 1991**

Source: BofA Merrill Lynch Global Investment Strategy, Bloomberg

[7] At least since 1957, when the European Monetary Union, and official record-keeping, was established.

Chart 8 **Three Major Net Capital Inflow Slowdown Episodes (Percent of GDP)**

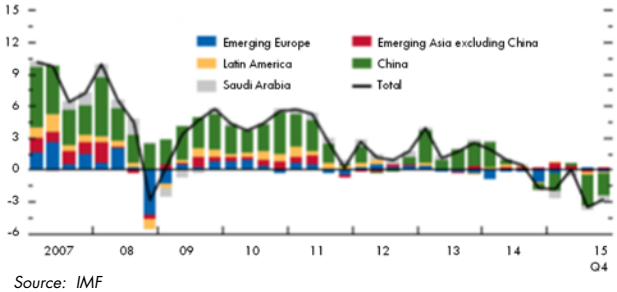


Sources: CEIC Asia database; CEIC China database; Haver Analytics; IMF, Balance of Payments Statistics, IMF, International Financial Statistics; World Bank, World Development Indicators database; and IMF staff calculations.
Note: Calculations are based on a sample of 45 emerging market economies. The observation for 2015 refers to the first three quarters. See Annex 2.1 for the complete list of sample countries.

The decline in trade volumes not only retards overall growth, it impacts trade-dependent developing economies in two other, important ways. Capital flows into developing economies have seen the biggest drop, and have now turned negative, for the first time in over 30 years (Chart 8). This capital shortfall, in turn, has caused countries to spend down their reserves (Chart 9), putting further pressure on their currencies and economies.

The US economy is the least dependent on global conditions of any major country, but it is not completely immune. GDP growth fell to just 0.5% in the first quarter, led by a 5.8% drop in business investment, the biggest decline since 2008. Declines in inventories and net exports were the other areas of weakness, offset by continued strong personal consumption, up 1.9% in the quarter, 2.7% in the past year.

Chart 9 **Change in Reserves (Percent of GDP)**



Source: IMF

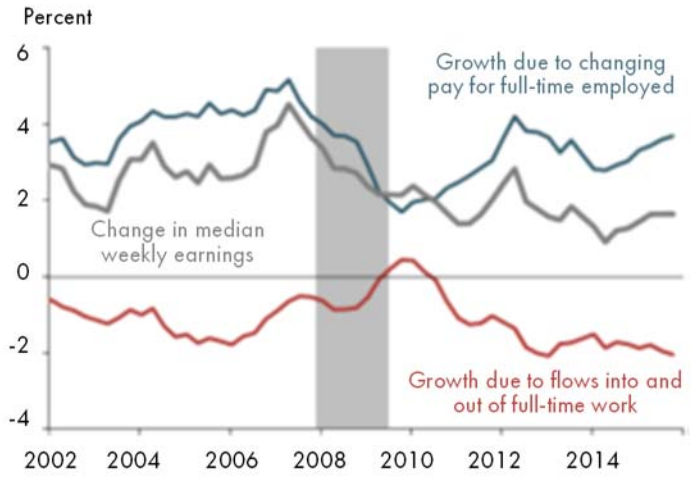
The bright spot continues to be the labor market. New jobs averaged 209,000 per month in the first quarter, 2.8 million created in the past year. The unemployment rate was steady at 5% in the quarter, as more workers were drawn into the workforce, at the fastest pace in over 20 years, 2.2 million over the past year.

The jump in new entrants brought the labor participation rate to 63.0%, up from a 40-year low of 62.4% in September. While this uptick is welcomed, the long-term trend is likely to head lower due to demographics. In 2007, one in five Americans was over age 60, today it's about one in four. Aging accounts for around half of the decline in the participation rate in recent years (Chart 10), and is

Chart 10 **Contributions to Change in Labor Force Participation**

*Source: Current Population Survey, BLS; FRB Atlanta calculations. Notes: *within age-group change, **family, education, retired, and "other".*

Chart 11 **Components of median weekly earnings growth**

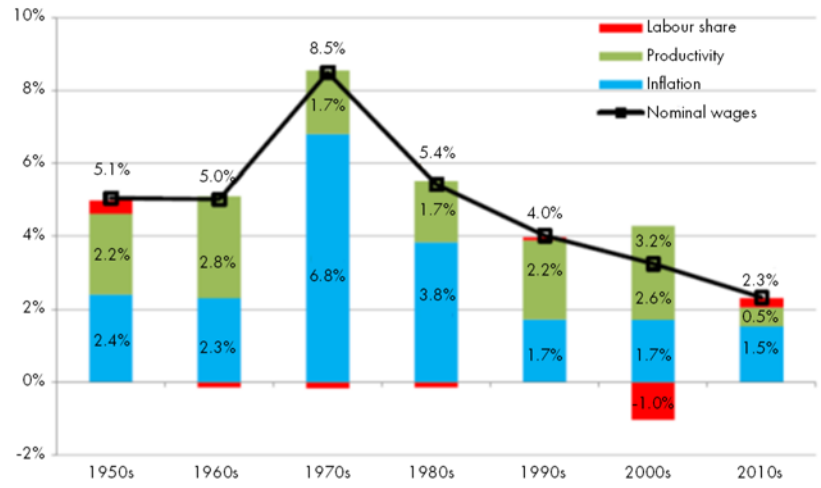


Source: FRBSF

likely to bring the "natural" participation rate lower, possibly even below today's depressed level, in the coming years.

Strong employment gains are normally accompanied by healthy wage growth, but that has not been the case, or at least, not so as much, in this recovery. Despite the net addition of nearly six million new jobs, average wage growth has been around 2 ¼% for the past two years, well below the 3 ¼% average from 1983-2015. Part of the explanation for this divergence between employment and wage growth is the effect of a globalized workforce. This expanded pool of labor works to hold down wage gains. Another part of the explanation is found in the changing composition of labor.

Chart 12 **Components of annualized US nominal wage growth over decades**



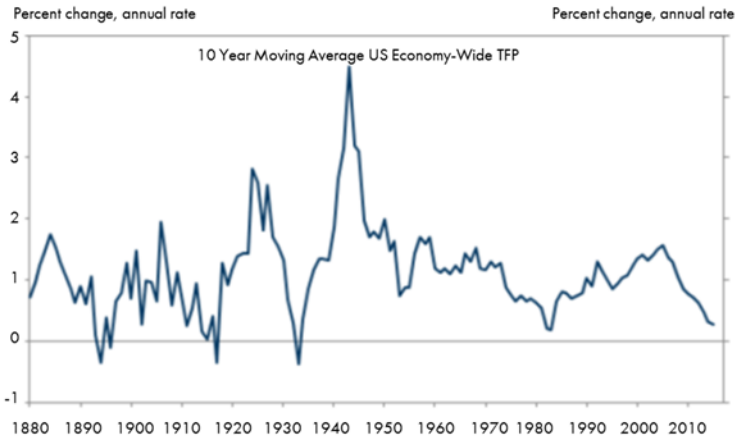
Source: Deutsche Bank, Haver Analytics

In the 2008-2009 downturn, wage growth fell, but not significantly so (from about +4% to +2%) because of the disproportionate firing of low-wage workers. In the recovery, wages have again increased for full-time workers, but the retirement of high-wage earners and their replacement with new, lower-wage workers, have checked the growth in average wages (Chart 11). Nearly 80% of new full-time workers, coming either from part-time employment, unemployment or simply new to the labor market, do so at below median wages. Rather than indicate labor market slack, moderate wage growth may be consistent with a strong labor market attracting more low-wage workers into full-time employment.

Wage growth is not some arbitrarily-set number, notwithstanding the near-hysteria in some circles for hiking the minimum wage. Nominal wage growth is a function of three (and only three) factors: labor's output (productivity), prices (inflation) and labor's share of output (the flip-side of profit margins). For the fifty years in the last half of the 20th century, labor's share of the economy's output was largely unchanged, and nominal wage growth followed changes in productivity and inflation. Since 2000, labor's share of output fell, lowering wage growth, although it has recovered a bit in the past two years (Chart 12, page 7).

It remains to be seen whether the shift in the split of the economic pie since 2000 will continue to erode labor's share (resulting in ever-higher profit margins), stabilize, or revert back to historical averages. The past few years suggest perhaps the latter. Either way, it should be evident that the key to

Chart 13 **Total Factor Productivity, 10-Year Average, 1880-2015**



Source: Kendrick 1961, World Penn Tables, The Conference Board, Federal Reserve Bank of San Francisco, Goldman Sachs Global Investment Research

Table 1 **GDP per hour worked: G-10 members**

	1997-2004	2005-2014	Change
Sweden	2.8	0.5	-2.3
Untied Kingdom	2.4	0.4	-2.0
United States	2.7	1.0	-1.7
Netherlands	1.8	0.4	-1.4
France	2.0	0.7	-1.3
Japan	1.9	0.8	-1.1
Belgium	1.2	0.4	-0.8
Germany	1.5	0.8	-0.8
Canada	1.5	0.9	-0.6
Italy	0.5	0.0	-0.5
Switzerland	1.0	0.9	-0.1

Source: OECD, J.P. Morgan

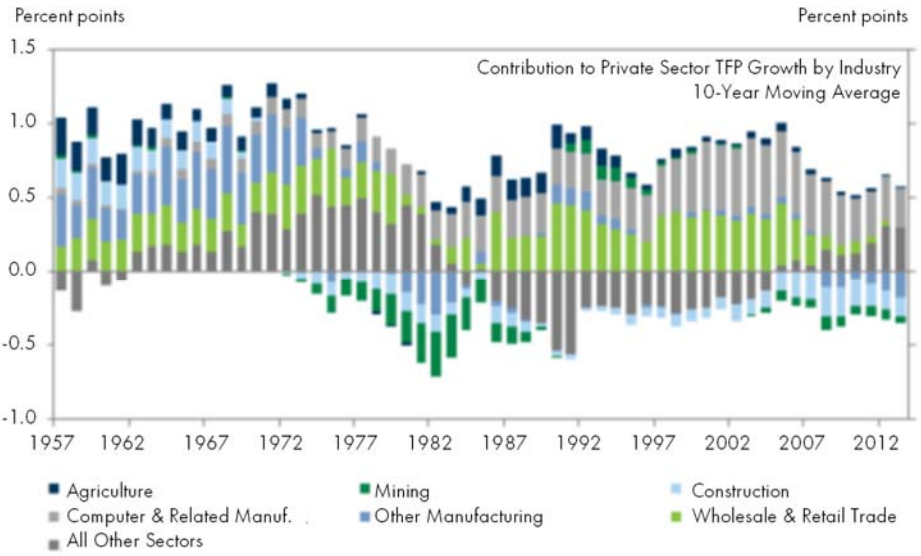
Table 2 **Productivity by Industry**

	1997-2004	2005-2014	Change
Manufacturing	7.3	2.1	-5.2
Wholesale trade	5.2	0.2	-5.0
Retail trade	3.6	0.1	-3.5
Leisure/hospitality	1.4	-0.4	-1.8
Prof/business services	1.8	0.2	-1.6
Transportation and warehousing	1.2	-0.3	-1.5
Utilities	1.7	0.2	-1.5
Financial activities	2.5	1.1	-1.3
Information	5.4	4.3	-1.1
Construction	-0.4	-1.2	-0.9
Other, nongov	-1.0	-1.4	-0.4
Education/health care	0.2	0.1	0.0
Mining*	-0.2	1.4	1.5

**Mining productivity calculated as real value added per employee (not per aggregate hour) because of data limitations. Source: BEA, BLS, J.P. Morgan*

wage growth, indeed the crux of our prosperity, lies in our economy becoming more productive.

Chart 14 **Waves of Sector Innovations Drive Aggregate TFP Growth**



Unfortunately, we've become less productive (Chart 13, page 8). This is true in every major developed economy (Table 1, page 8) and across every industry sector (Table 2, page 8) and began well before the 2008 financial crisis.

Low productivity, which translates to low overall economic growth, is at the core of the argument that we are in a secular stagnation,[8] a long period of flat-line growth and incomes due to weak demand and the absence of transformative technological breakthroughs. If that, indeed, is our fate, the cause is likely to be supply constraints rather than lack of demand.

If weak demand were the root problem, inflation should be falling and unemployment should be rising. Yet inflation has held steady, and is actually beginning to rise, while the unemployment rate has dropped dramatically across all major economies. Low economic growth is due more to the supply-side issues of an aging population, low investment and slowing productivity.

So we're back to why productivity growth has slowed so much in the past decade. The largest explanatory factor is a decline in IT spending, which peaked in 2000. Research[9] shows that IT spending leads productivity gains by three-to-seven years, consistent with the peak in productivity growth in 2003.

But what is behind the drop in IT spending? The secular stagnation view is that there are simply no worthy technologies in which to invest; all the good ideas are in the past.[10] That is, no forthcoming breakthrough will have the massive and pervasive impacts of the great discoveries of electrification, the internal combustion engine, flight, and the other spectacular advances of the late 19th- early 20th century.

A more cyclical view would point to the enormous supply shock of labor, as the former communist and otherwise closed countries joined the world economy, doubling the available pool of labor, thus lowering its price. It became more economical to invest in this abundant, and cheap, labor supply than to invest in technology. As this dynamic shifts, an aging global population will make labor more scarce, thus raising its cost, thus incenting more investment in technology.

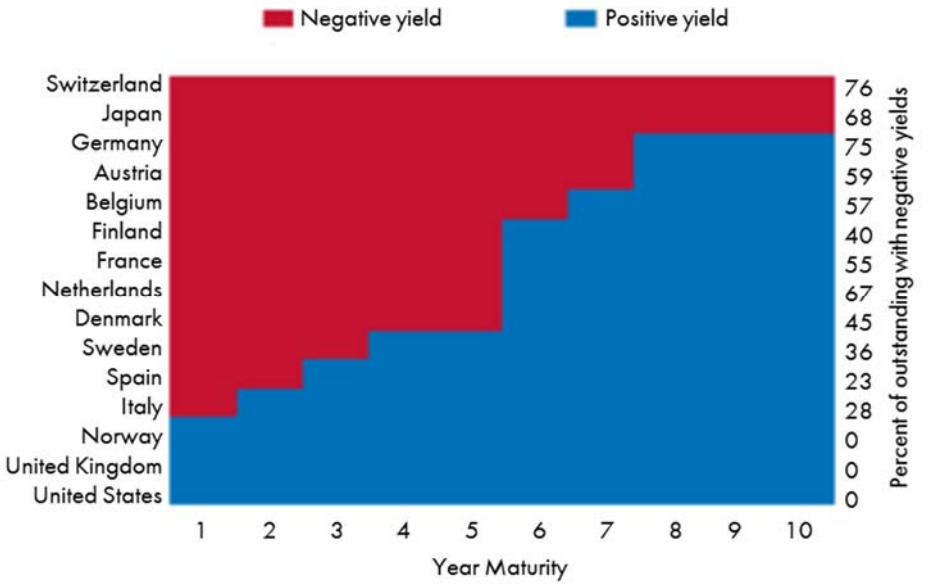
[8] Larry Summers (Harvard) and Robert Gordon (Northwestern) are two of its prominent advocates. The phrase originates from Alvin Hansen (Harvard), writing in 1938, that the populating of the American frontier and the drop in immigration removed investment opportunities, thus relegating the economy to low– or no-growth indefinitely. He was wrong.

[9] By Erik Brynjolfsson (MIT) and Lorin Hitt (UPenn), among others.

[10] Everything *that can be invented has been invented*, noted Charles H. Duell, Commissioner of the U.S. Office of Patents, in 1899. Unfortunately (because it's a good quote), there's no evidence the good Mr. Duell ever said such a thing. His sullied reputation deserves a polishing.

There may be some truth in both views. Technological breakthroughs that impact whole economies, such as the harnessing of electricity, may be harder to come by. We saw broad-based gains in productivity in the 1950s and 1960s, but in the past few decades, productivity growth has come in waves across different sectors, first in general manufacturing, then in retail trade, and most recently in IT manufacturing (Chart 14, page 9). One cannot know when or where the next wave of innovation will occur,[11] but it will.

Chart 15 **Share of Sovereign Bond Markets with Negative Rates (Percent)**



Sources: Bloomberg, L.P.; and IMF staff calculations

Weak growth, low productivity, soft investment spending are all interconnected, the result of supply shocks, also interconnected, in labor, housing, commodities and the debt that fueled them all. The only, occasionally coherent, policy responses have come from central bankers, while bureaucrats and politicians have been shouting past each other.

Early in the downturn, legislators tried to incent consumers to buy more homes and cars when the problem was that they had too many homes and cars, so $1 trillion or so was flushed away in these misguided steps to stimulate demand. We could have used that money more productively repairing our crumbling infrastructure, but in a recent interview,[12] President Obama admitted that he saw the political window closing quickly in 2010 where he would control both the House and the Senate (he was right), and consciously chose to push his health care plan over a public works bill as a way to burnish his legacy rather than providing a temporary boost to the economy.[13] Since then, fiscal policy has been absent in the fight against sluggish growth. For a variety of reasons, from perceived self-interest to outright ignorance, sensible long-term spending on infrastructure and research, and reforming our massively inefficient tax code and incomprehensible maze of regulations, cannot even be discussed.

So we turn to central bankers, whose sole mandate is low and stable inflation, to address the myriad of economic woes.[14] Their response began with ZIRP, zero-interest rate policy. When that failed to bolster the economy, QE, quantitative easing, was introduced, in which central banks purchased government bonds along the maturity curve, an attempt to lower long-term rates.

[11] 3-D printing, renewable energy, personalized medicine are just some of the promising areas of future advances.

[12] New York Times Magazine, 1 May 2016.

[13] It's refreshing to see a glimmer of honesty in a political interview, and the president may yet be right about his legacy, although I suspect there are a lot of laid-off workers who would have preferred the public works jobs.

[14] The US Federal Reserve, alone among central banks, has a dual mandate of low inflation and full employment. Monetary policy, which the Fed does control, directly influences inflation, so that part of the mandate is sensible. Employment, however, is a function of many factors, monetary policy only an indirect one. This part of the mandate was inserted by politicians who had not read Milton Friedman, and labored under the false impression that inflation and employment were two sides of the

In the aftermath of a debt bubble, the economy collapses because incomes are insufficient to service debts, so the key for central bankers is to get nominal rates below the nominal growth rate, giving the economy space to outgrow its debts. The US and the UK were generally successful by this measure, bringing and keeping rates below nominal growth, and both countries have seen steady recoveries since 2009.

Alas, this happy outcome continues to elude Europe and Japan. As a consequence, both the ECB and the BOJ have expanded their QE programs and converted their ZIRP to NIRP, negative interest rate policy, which now encompasses the majority of government bonds (Chart 15, page 10).

In March, the ECB introduced a new program, Targeted Longer-Term Refinancing Options (with the catchy acronym, TLTRO), in which banks can borrow up to 30% of their loan book for four years at zero cost, but if they lend more, the ECB will pay banks up to 40 basis points for making those loans. Not to throw cold water on this idea, but it has been tried before, to little avail, because the problem is not that banks don't have the reserves to lend. Over-indebted, and over-taxed, consumers do not need or want more debt.

The ECB also announced that they could now buy up to half of the corporate bond market in an attempt to make borrowing cheap for companies. Well, again, it's not clear that many investment-grade companies are wanting for debt. In any event, the corporate bond market is tiny in Europe, about 8% of all non-financial liabilities, less than a fifth of the size of the US market. It would take the ECB about four months to own half of the European credit market. And then what?

Lastly, the ECB also cut deposit rates, from -0.30% to -0.40%. It's not clear if they see this as ironic, or they actually think it will matter. I interpret it as the former, but I'm not a central banker.

Surprisingly,[15] all these moves were not greeted with universal acclaim. German finance minister, Wolfgang Schäuble, said that the ECB was 50% responsible for the rise of right-wing, nationalist parties in Germany. He didn't mention who was responsible for the other 50%. Mario Draghi, head of the ECB, responded directly to Schäuble: *We obey the law, not the politicians*. Ouch.

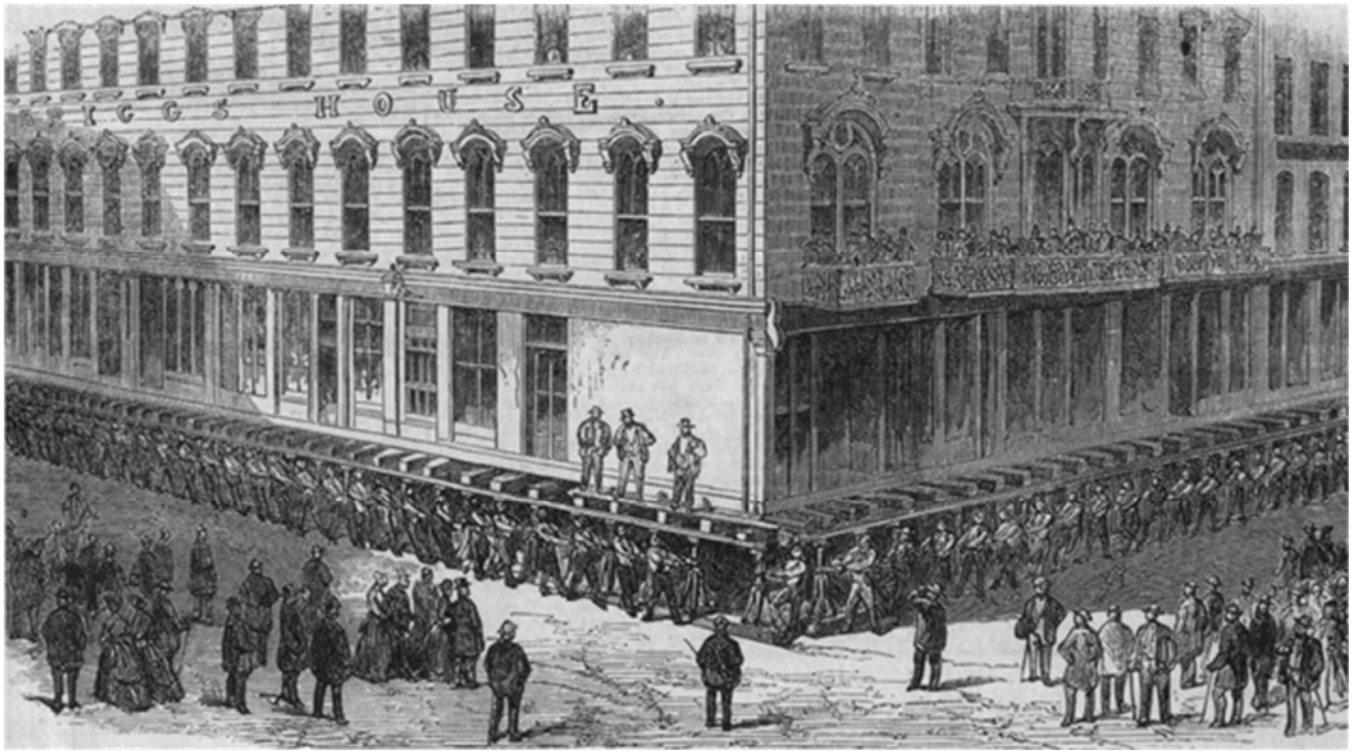
The Bank of Japan also introduced NIRP this past quarter, taking a page from Korekiyo Takahashi, Finance Minister in the early 1930s. To combat the effects of the Great Depression, Takahashi devalued the yen by abandoning the gold standard, and expanded the monetary base by underwriting government bonds (JGBs) in 1932. The Japanese economy soared 10% the next year, and sustained the strongest growth of any developed country in the world. Takahashi saw the underwriting of JGBs as temporary, and worried that inflation would result if left unchecked. After years of strong growth, in late 1935 Takahashi advocated a gradual reduction in bond buying. But the military was planning a massive increase in spending ahead of its coming invasion of China, and wanted Takahashi to step up his financing of government debt. The dispute was resolved in February 1936 when Takahashi was assassinated by military forces, who were then free to pursue its favored policy. Inflation soon soared out of control, as Takahashi had feared, but by then, that was the least of Japan's problems, as the world plunged into war.

[15] Not Really

The US engaged in a series of unprecedented monetary and fiscal policies in the 1930s. All government bonds contained a gold clause, requiring the government to repay its debt in gold. The Treasury unilaterally annulled this provision, which was affirmed in a 5-4 Supreme Court decision. In 1936, World War One veterans were paid an average $500 each, which was more than the then median income, and totaled about 2% of GDP. The Home Owners' Loan Corporation was created to buy mortgages and re-finance them with lower rates and longer terms. One million loans, 20% of all mortgages, were bought, representing $4.75 billion, around 8% of GDP. The federal budget moved from a surplus of 1% in 1931 to a deficit of about 6% of GDP by the mid-1930s.

Some of these policies in the 1930s were necessary and effective (abandoning the gold standard, for example); others were not. Easier monetary conditions are necessary in Europe and Japan, but they are not sufficient to sustain long-term growth. The US is ahead of the curve, but faces similar long-term challenges. Without structural reform to promote growth and innovation, primarily through tax and regulatory reform, we risk turning a cyclical stagnation into a secular one.

Spring of 1849 was wet and warm in the Great Plains. Three solid days of rain piled the ice high on the Des Plaines River, and when it broke a wall of water and ice swept



through the city of Chicago. A few weeks later, in a city of 30,000, 678 were killed by a cholera epidemic. Five years later, cholera again swept through the city, killing 1,549 people. Chicago was *the unhealthiest place in the United States*, wrote the *Chicago Tribune*, which blamed foreigners for the filthy conditions.[16]

After cholera took 5% of Chicago's population in 1854, officials looked for someone who could save the city from the filth that was killing them. For the first, but not the last time, they turned to Boston for a savior.[17]

After years of working as a railroad engineer, Ellis Chesbrough joined the Boston Water Works in 1846 as chief engineer. Four years later, he was appointed sole commissioner and then took over as City Engineer, responsible for every engineering project in Boston. When the Chicago Board of Sewage Commissioners came calling for an engineer, he accepted the job. Tackling the sewage of Chicago was a bigger challenge than running the city of Boston.

The crux of Chicago's problem that stymied engineers for years was that the city was flat, and level with Lake Michigan, so sewage could not drain into the lake, or anywhere else. It just piled up in the streets. Chesbrough's solution was to lift the city. Literally. He deployed massive jacks to lift virtually every building in the city four-to-five feet, downtown was lifted ten feet, in order to construct a new, elevated foundation (see illustrations). Chesbrough

[16] The editors wrote: *…a large majority of the deaths are confined to the foreign population passing through or permanently stopping here. And when their habits of living are considered—how they dissipate with poisonous liquors and slops, and eat every manner of green and decaying vegetables, in quantities that no native could stand without injury—the wonder is, not how so many die but how they live.* Blaming foreigners for our problems is not new, but it is sad that we don't seem ever to learn.

[17] I'm making a vague, and premature, reference to Theo Epstein, general manager of the Red Sox in 2004 when they won their first World Series since 1918. The Cubs, who have not won a Series since 1908, hired him away in 2012, and are this year's favorites to finally win it. We'll see.

then tunneled two miles underneath the raised-up buildings to place his sewer lines. Both of these feats, lifting a city and tunneling two miles below, had never been done before, and are among the great engineering feats in history.

Of course, sending sewage into the river and out into Lake Michigan fouled that water supply, so Chesbrough tunneled two miles out into the lake to draw clean water to his newly constructed Water Tower, still standing proudly on Michigan Avenue, the only structure in the city to survive the Great Fire of 1871.

As Chicago grew, so did its sewage and its demand for water. By the end of the century, the Chicago River was fetid, and clean water from Lake Michigan could not be found even two miles out. So the city reversed the flow of the Chicago River, sending its flow of sewage via a 28-mile canal[18] eventually connecting to the Mississippi River. When it was completed, the *New York Times* congratulated the city with a headline: *The Water in the Chicago River Now Resembles Liquid*.

Engineers visibly alter our landscape. Chicago is rightly lauded for its brilliant skyline and many architectural gems. It is truly a magnificent city. But just as important, even more so, is what lies underneath. We take our water and sewer infrastructure for granted because it is rarely visible. But it's hard to think of a more important, literally more vital, foundation to our civilization than this. Ellis Chesbrough's solution to Chicago's deadly conditions, lifting an entire city, was ingenious. The hard work of achieving it, equally remarkable.

Chesbrough inspires us to approach our challenges with an open mind, considering solutions that may never have been tried before. The fact that the problem he solved involved the dirty business of sewage, reminds us that the most important work we can do is building our foundations with hard work and creativity. The shiny glass buildings we construct would not stand long without a strong foundation.

[18] Named the Sanitary and Ship Canal, but no ship ever floated on what really was always just an open sewer canal.

Founded in 2001, Angeles Investment Advisors LLC provides investment advice to select institutions and high net worth families and individuals.

Michael A. Rosen

Principal & Chief Investment Officer

MAY 2016

Please follow the Angeles Blog by Michael Rosen at
blog.angelesadvisors.com

CONNECT WITH US

LinkedIn | Twitter | Facebook | Google+

If you would like to receive a copy of our Form ADV Part 2A free of charge, please email Steve Smetana at ssmetana@angelesadvisors.com, or call 310.393.6300.