A. Gary Shilling's INSIGHT

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In This Issue

1 "Mad as Hell" Brits Brexit was a shock as the staid Brits joined the "mad as hell" populist revolt of voters on the left and right in Europe and North America reacting to a decade-plus of no growth in real incomes for most. Responsible are globalization that shifted high-paid jobs from the West to Asia and deleveraging, which has spawned slow economic growth globally. Income polarization adds to voter angst. Immigration, terrorism-prone Muslims and unfair trade are blamed by many demagogues and their followers.
Brexit will slow economic growth in the U.K.; curtail growth in the rest of the EU; encourage the anti-immigration and protectionist-oriented populism that fueled Brexit; mark the end of post-World War II efforts to unite Europe; promote contagion that could result in other countries leaving the EU; dampen immigration to prosperous developed countries; cause the receding tide of globalization to fall further; further depress worldwide trade and economic growth; and retard already-weak capital spending.

24 Effects of Brexit Brexit will 1) further reduce Chinese growth; 2) ditto for other developing economies; 3) strengthen the dollar; 4) except for the equally safe-haven yen; 5) further depress commodity prices; 6) help drive oil to $10 to $20 per barrel; 7) promote chronic deflation; 8) lead to further central bank ease; 9) drive investors to safe-haven developed country sovereign bonds; 10) push yield-hungry investors to investment-grade corporates; 11) promote more negative interest rates; 12) encourage central banks to create negative real rates; and 13) further depress banks due to flattening yield curves, troubled loans and higher capital requirements.
The combination of Brexit and falling oil prices greatly enhances global recession risks.

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Even The Brits Are "Mad As Hell"

British voters' decision on June 23 to leave the European Union was a huge shock and makes indelibly clear the rising tide of populism in the West and the challenge to the established order.

The Normally Staid Brits

After all, the Brits are known as a staid people with stiff upper lips who were expected to vote for the status quo. In orderly Britain, the police are essentially not only polite but unarmed, and gun violence is rare. In contrast, not only are most American cops armed but even the security guards at the New York Stock Exchange very visibly carry pistols, even though only 15% of the trading in NYSE stocks now takes place on the Exchange floor, so little that dummy quote screens have been installed to impress visitors.

In the closing hours before the referendum, pollsters were predicting that the Remain-in-the-EU side would win by up to a nine-point margin. The bookies' betting odds said a pro-EU outcome was almost inevitable. David Cameron, the Prime Minister of the Conservative Party, urged Remain as did Opposition Labour Party head Jeremy Corbyn. Note, however, that the U.K. Independent Party—founded in 1990 with the sole purpose of getting out of the EU—was already gaining in voter appeal (*Chart 1, page 2*). Over 1,200 corporate CEOs, including half of the chiefs of the FTSE 100 companies, wrote to *The Times* newspaper the week before the vote urging a rejection of Brexit.

Banks in the economically-critical London financial center, along with the Bank of England and most of the U.K.'s influential think tanks and academic institutions, had warned of the risk to the British economy and global financial pre-eminence if she left the EU as did many important foreigners. They included most of the heads of European governments and major bank CEOs. In April, President Obama went to London to tell British voters that the U.K. would go to "the back of the queue" in trade negotiations with the U.S. if they left the EU.

Brexit prevailed even though Britons have enjoyed economic growth that's about the fastest of any developed country since the Great Recession and decidedly faster than the EU as a whole (*Chart 2, page 2*). Also, Britain is closely tied to other

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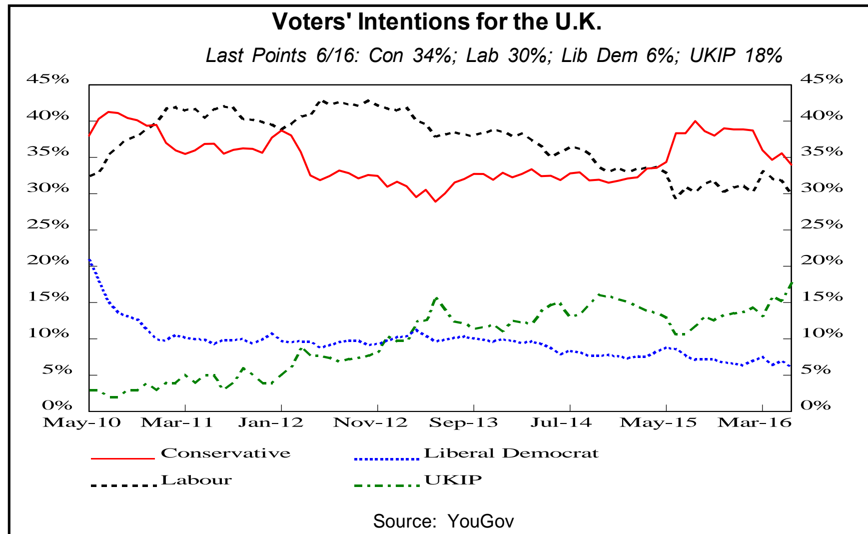
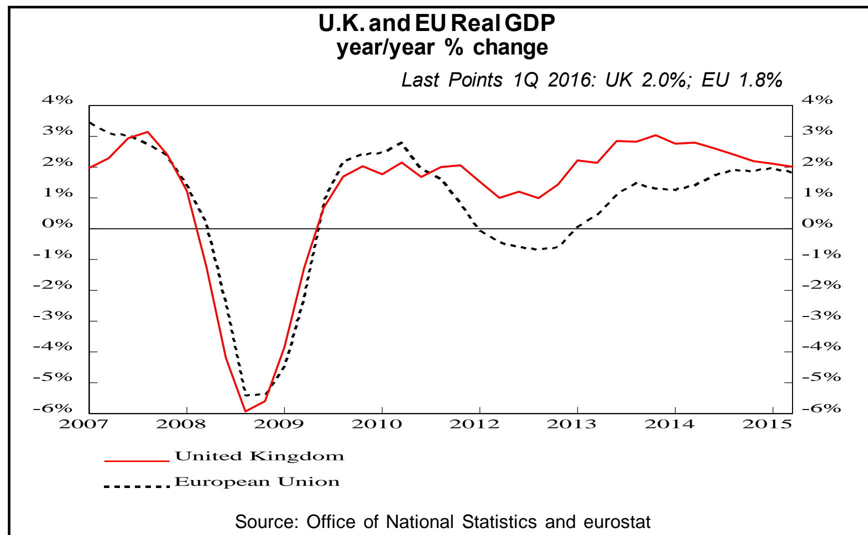
EU countries, not only through the London financial center but also through trade in general. Note in *Chart 3* that 53% of U.K. exports are destined for other EU countries and 45% of her imports come from them. But even though 58% of British auto exports go to the EU (*Chart 4, opposite page*), in Sunderland, Britain's automotive center, 61% of voters opted to Leave.

CHART 1



The Brexit backers played up to fears that under EU rules, immigrants from eastern EU members can move to Britain and enjoy the welfare and other benefits of residents without holding U.K. jobs and can even enroll their spouses before they leave their home countries. Muslim immigration, especially with terrorist overtones, was also emphasized. Brexit backers also emphasized the many rules and regulations imposed by EU bureaucrats in Brussels—especially those governing Britain's financial sector—that offended the British sense of independence.

CHART 2



The Culmination

The Brexit vote was the culmination of populist movements that have been gaining strength in Western Europe and North America for some time, as we first reported in detail in "The Next Big Thing" (March 2015 *Insight*). These movements have been driven by worldwide financial deleveraging and other forces have spawned slow economic growth. This, aided by excess supply of almost everything, has sired falling commodity prices, spreading and deepening deflation and nearly-universal attempts to devalue currencies against the U.S. dollar. All these forces are retarding middle-class incomes in major economies, augmented by other important depressants.

Another major factor is globalization, the biggest worldwide economic development of the last three decades. This resulted in the movement of manufacturing and other jobs out of North America and Western Europe to lower-cost locales, notably China but increasingly even lower-cost countries like Vietnam, Bangladesh and Pakistan. Call center, legal and other service employment has shifted to India. As a result, real wages have seen little if any growth in most Western countries for over a decade (*Charts 5 and 6, opposite page*).

U.S. manufacturing employment has been falling since 1979 and as a share of total payroll jobs throughout the post-World War II era (*Chart 7, page 4*). Much has been made of the return to America of factories—"reshoring"—but the operations returned to the U.S. or expanded here are capital-intensive, robotic-rich activities. They're not the plants that employ thousands of unskilled and semi-skilled workers. Apple may

CHART 3

U.K. Trade
as a % of total

	Exports	Imports
European Union	44.8%	52.8%
U.S.	14.9%	8.8%
China	7.4%	9.1%
Other	32.9%	29.3%

Source: Office of National Statistics

design the next generation of cell phones in California but the components and final assembly will no doubt be done in Asia.

Many of jobs moved abroad from the U.S. and other Western countries were high-paid union positions in private industry (*Chart 8, page 4*). Now, with pressure on state and local government budgets and more right-to-work states, high-paid municipal positions are dropping as well.

Cost-Cutting

Another downward force on U.S. incomes is business cost-cutting, as we've discussed in many past *Insight*s. With the slowest economic growth of any post-World War II recovery (*Chart 9, page 4*) and little inflation earlier, and now deflation (*Chart 10, page 5*), corporate revenue growth has been limited due to sluggish unit volume expansion and no pricing power. Also, the robust dollar has added to the difficulty in generating profits. So American businesses have resorted to cost-cutting with the resulting leap in profit margins, as measured in *Chart 11* (*page 5*) as profits' share of national income. Since most costs are ultimately labor costs, compensation's share of national income has been the mirror image.

Furthermore, many employers prefer part-time employees since they only work at the time of day or season of year they're needed. Also, they're usually paid less than full-timers with few benefits. Some prefer part-time work but others would like to work full-time but can only find part-time employment. These "part-time workers for economic reasons," in the Bureau of Labor Statistics parlance, had a big rise in the Great Recession and their number, although down from the peak, remains high (*Chart 12, page 5*).

Academic researchers have updated government data to show that 16% of U.S. workers in 2015 were in alternative employment arrangements, up from

Chart 4

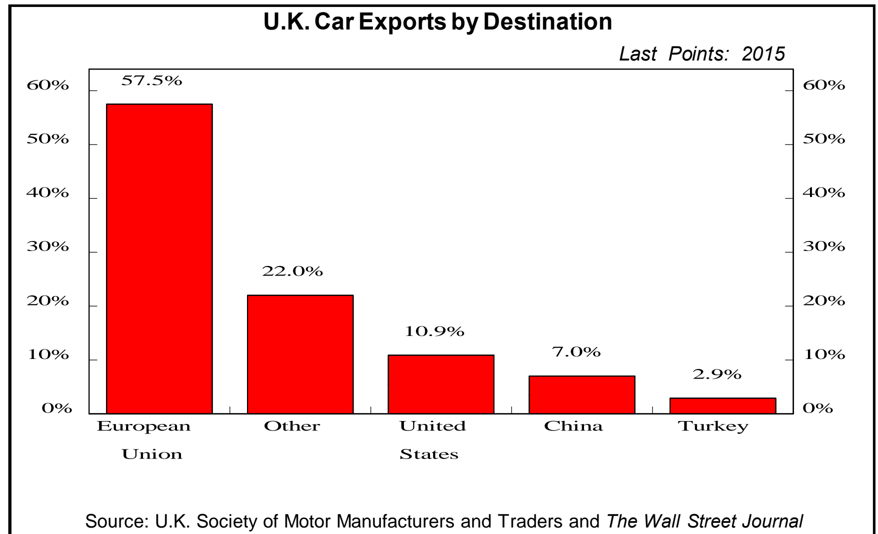


Chart 5

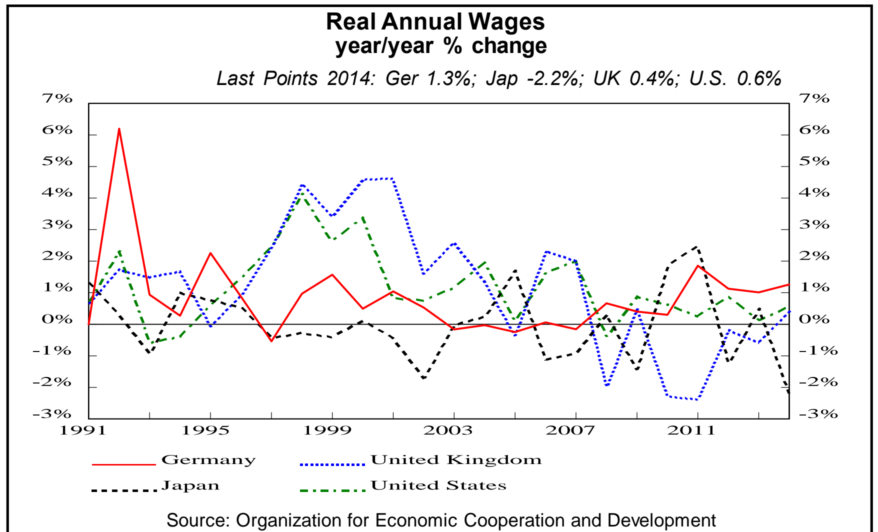
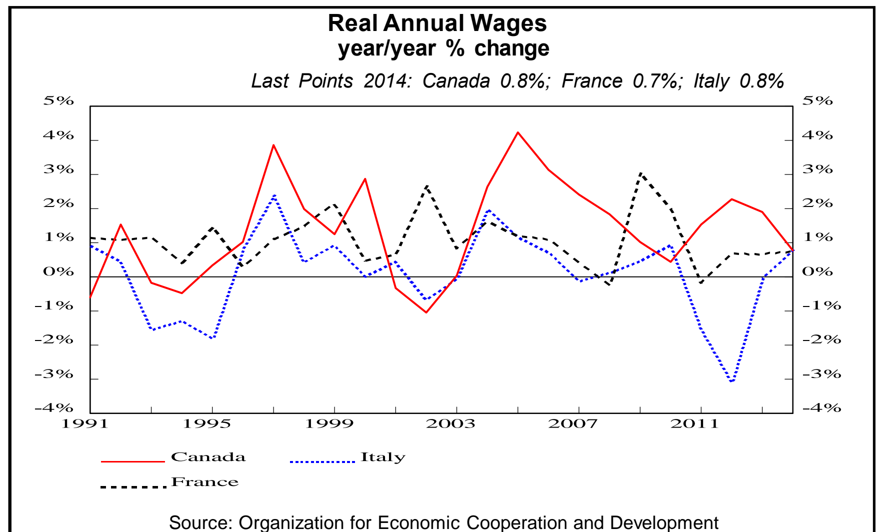


Chart 6



10% in 2005 as companies shed non-core jobs and government budgets came under strain. These people are independent contractors, on-call workers such as Uber drivers and house cleaners for Handy, temps and people employed by contract firms and have few benefits such as health insurance, Social Security and retirement plans and little job protections. Their share has more than doubled to 11% in manufacturing and to 16% in health care and education and quintupled to 10% in public administration. The on-demand, or gig, workforce includes 600,000, or just 0.5% of the total, but it is exploding.

Fading Payroll Growth

Payroll job growth has been fading (*Chart 13, page 6*) and many of those who get new jobs are in low-paid positions in retailing and leisure and hospitality—hotel maids, restaurant waiters, etc.—with far fewer in high-paid sectors such as manufacturing, utilities and information technology. Note (*Chart 14, page 6*) that since its trough in February 2010, the leisure and hospitality sector has added about 2.5 million jobs. In contrast, employment in the information sector has barely changed after its recessionary collapse.

These differences have significant effects on incomes since information jobs on average pay $36.40 per hour, 2.46 times the $14.81 average for leisure and hospitality (*Chart 15, page 6*). Also, the former work 36.4 hours per week on average, 1.39 times the 26.1 hours in the latter, where many are part-timers. So average weekly pay in the information sector, at $1,325, is 3.43 times the $387 earned by leisure and hospitality workers. So it takes 3.4 new leisure & hospitality jobs to equal the pay of one new employee in the information sector.

Retarded Incomes

Furthermore, the 2007-2009 Great Recession—the deepest since the 1930s and followed by the slowest recovery since World War II (Chart 9)—has retarded the incomes of people who did

CHART 7

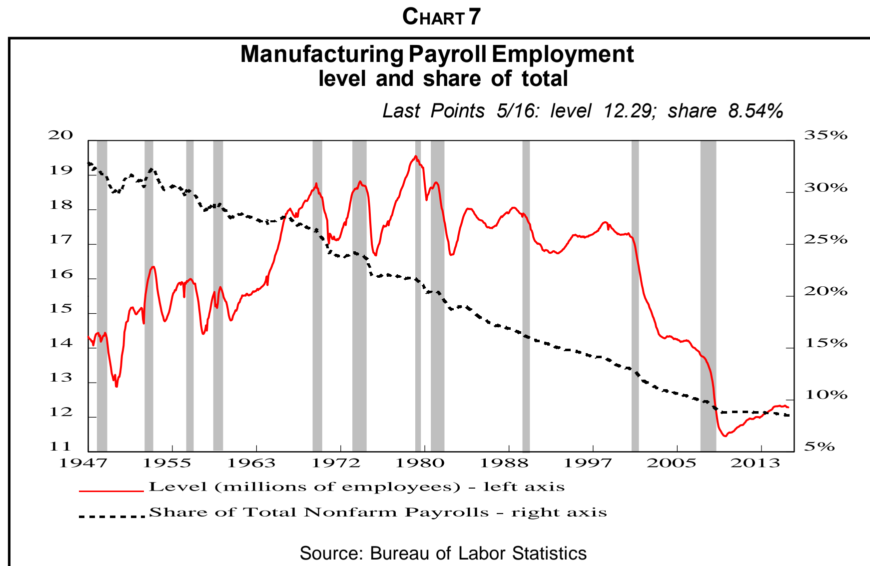


CHART 8

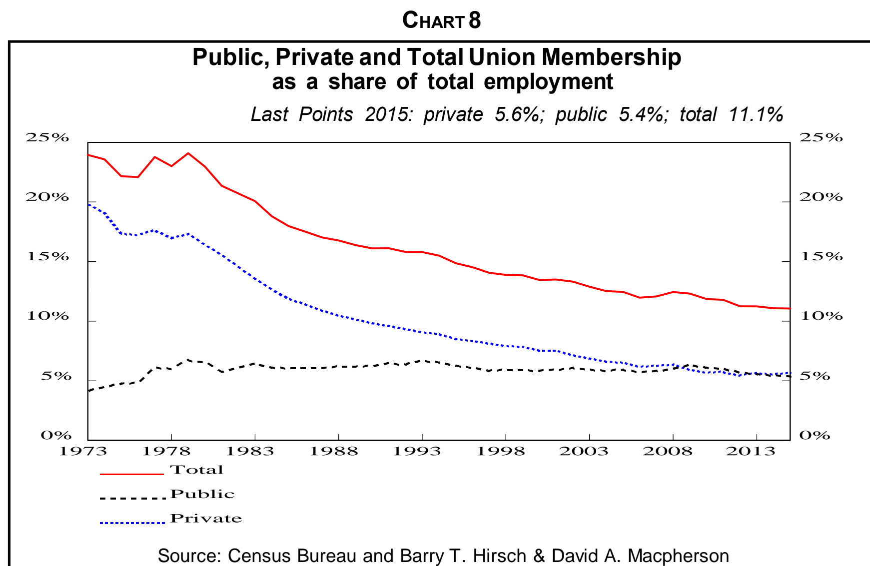
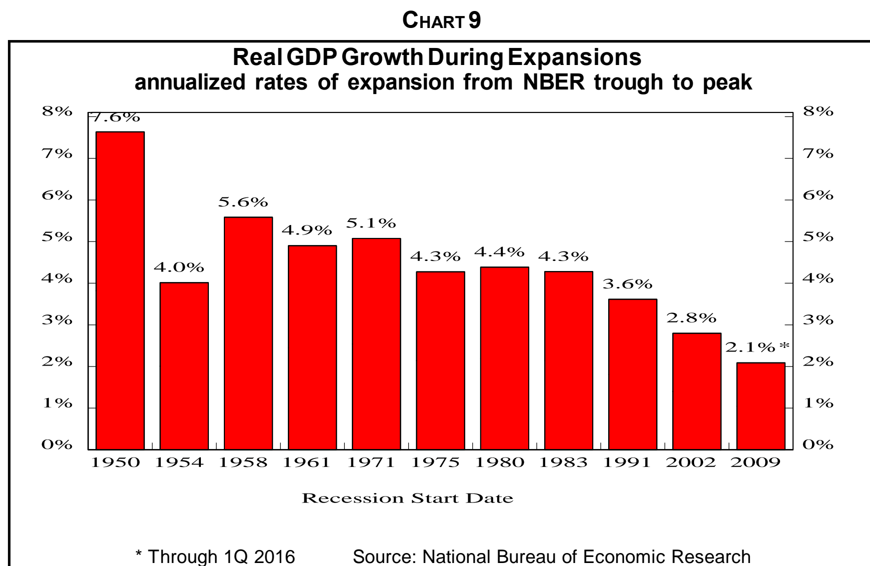


CHART 9



find jobs after being laid off (*Chart 16, page 7*). It normally takes years for the re-employed to return to their previous income levels, even if laid off in economic expansions, and even more so in recessions when pay cuts from new employers or those in new careers are common. Only about 25% of layoffs return to earlier earnings levels after five years and pay gaps vs. those not laid-off persist for decades. Those who lost their jobs in recessions made 15% to 20% less than their non-displaced peers after 10 to 20 years.

Not surprisingly, a recent poll found that 45% of adults in the U.S. are living paycheck to paycheck. And in only two years, from 2013 to 2015, those who said they were able to pay their mortgage or rent dropped from 57% to 43%, people able to cover basic needs fell from 59% to 41% and those who said they could handle health care costs declined from 56% to 44% (*Chart 17, page 7*). We've noted in past *Insight*s that in many ways overall U.S. economic and income growth peaked in 2000. The housing bubble, however, masked that reality until it collapsed in mid-decade (*Chart 18, page 7*).

Evidence that U.S. consumers are reacting to squeezed incomes is rampant. Auto sales peaked out in October 2015 at an 18.1 million annual rate (*Chart 19, page 8*) after the long climb fueled temporarily by heavy replacement demand, low interest rates and dealer incentives. Sales in June dropped to a 16.6 million annual rate despite the record $3,278 in average incentives per vehicle.

JP Morgan Chase bank CEO Jamie Dimon recently warned of rising auto loan default rates due to increased subprime lending, longer repayment periods and falling used car prices. Auto lenders repossessed 1.6 million cars last year, the third consecutive year of increase and up 21% from 2012. Strong sales of new vehicles in recent years are creating a flood of used cars and surplus of potential trade-ins.

CHART 10

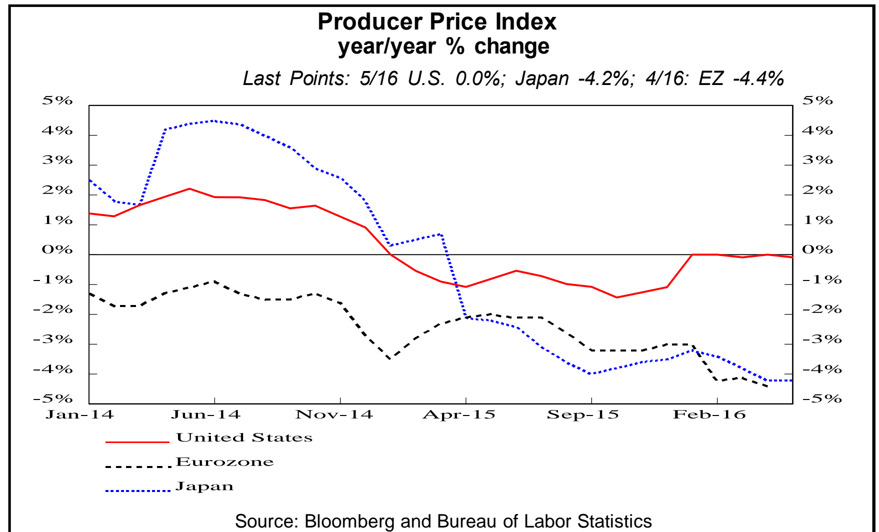


CHART 11

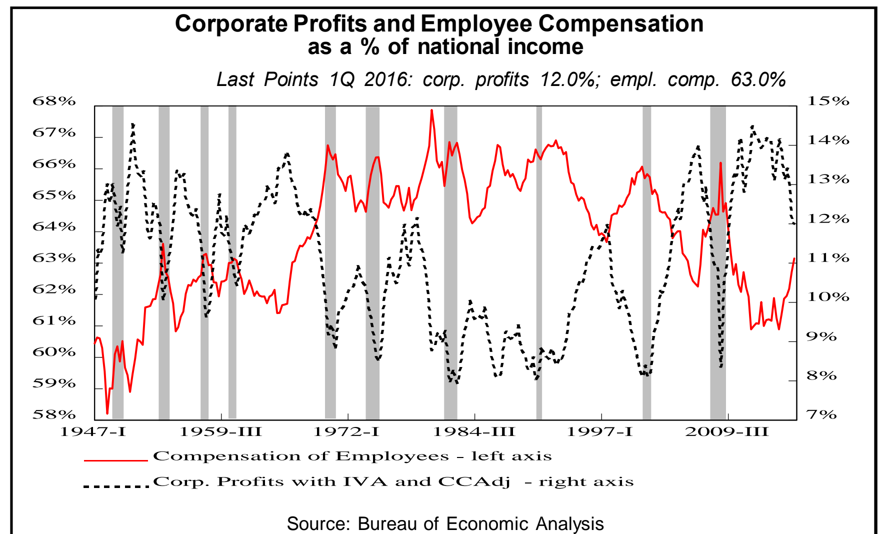
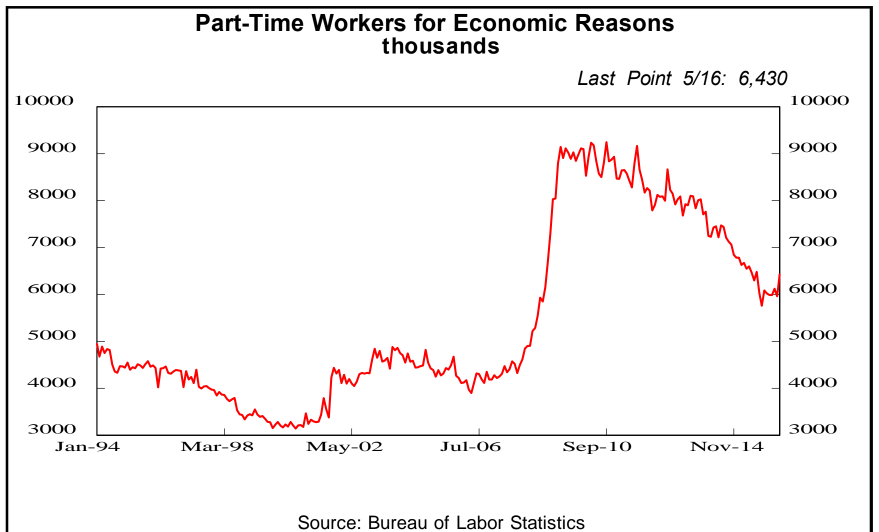


CHART 12



Consumer Confidence

Meanwhile, consumers' evaluation of current conditions and expectations for the future are falling (*Chart 20, page 8*). Also, consumer credit that finances credit card and auto loans rose more slowly in April than March. And visits to fast-food restaurants, which earlier rose at a 2% quarterly rate reflecting discretionary income, have stalled out.

Furthermore, student debt and delinquencies continue to be major problems as debt quadrupled since 2000 to $1.2 trillion (*Chart 21, page 8*). Enrollment leaped 24% from 2002 to 2012 as many went to college in hopes of getting better jobs in tough times. But lots of those people simply lost time away from the job market, didn't learn new skills and dropped out with huge debts they are unable or unwilling to repay.

A study of those who entered for-profit schools from 2006 to 2008 found that 70% dropped out and earned $600 to $700 a year less in the next six years compared to the six years before they entered. And their debts averaged $8,000 for associate degree candidates and $13,000 for bachelor's candidates. In nonprofit colleges, only half of students who enrolled in 2005 graduated within six years. But almost 40% who took on debt at those schools made no more than $25,000 in 2011, the same as an average high school graduate.

Chart 13

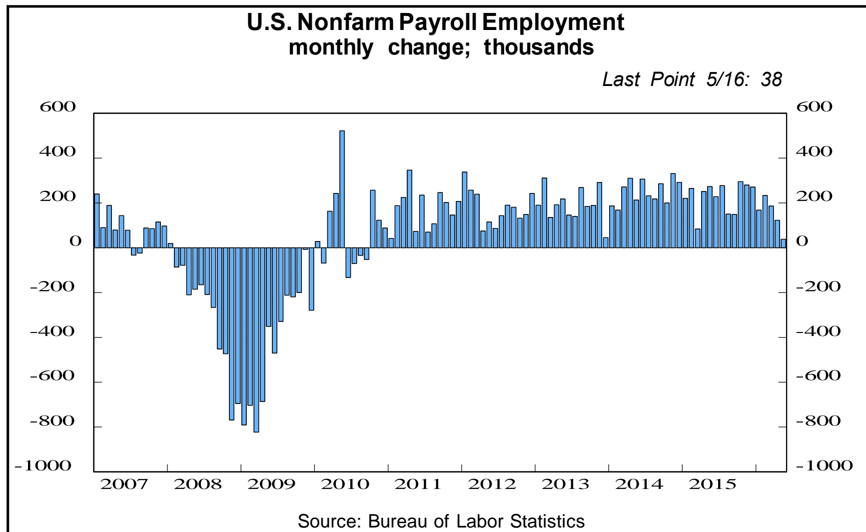


Chart 14

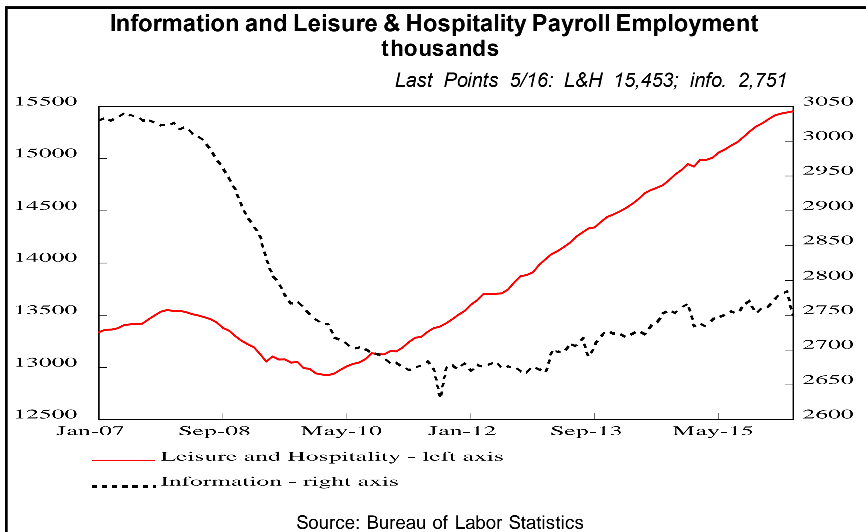


Chart 15

Information and Leisure & Hospitality Pay and Hours
May 2016

	Hourly Earnings	Weekly Hours	Weekly Earnings
Information	$36.40	36.4	$1,324.96
Leisure & Hospitality	$14.81	26.1	$386.54
Ratio	2.46	1.39	3.43

Source: Bureau of Labor Statistics

Income Polarization

Student debt is widening the gap between the haves and have nots, and income polarization in the U.S. and Europe is an ongoing reality, as we've discussed in many past *Insight* reports. In America, since data was first collected in 1967, the share of the top 20% has been steadily rising while the proportions of income going to the other four quintiles have been consistently falling (*Chart 22, page 9*). The ratio of CEO to worker compensation was rising from 1965 to 1989 but then leaped from 59 times to about 300 times (*Chart 23, page 9*).

A recent study by the Pew Research Center using data from the Census Bureau and the Federal Reserve revealed that in 2014, 49% of U.S. aggregate income was received by upper-income households with income over $126,000 compared to 29% in 1970, and the number of people in that category rose from 14% of the total in 1971 to 21% in 2015. Meanwhile,

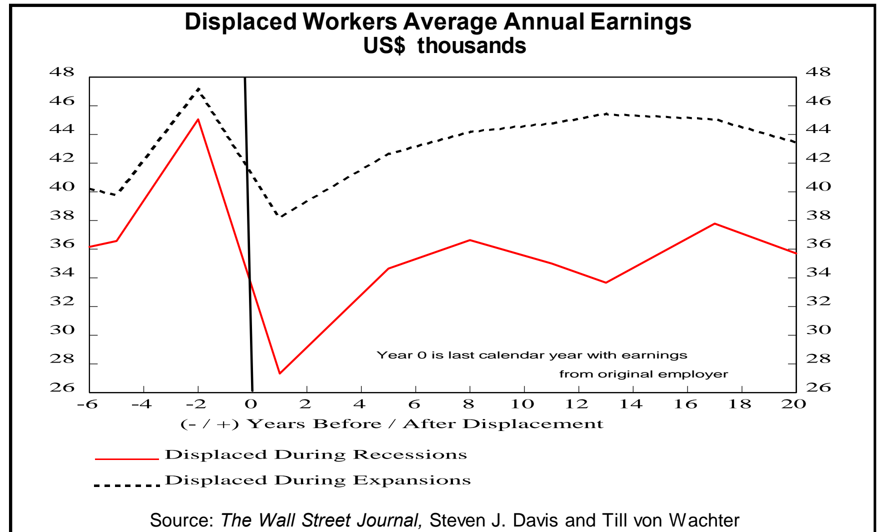
the income share of middle-income households with income in the $42,000 to $126,000 range fell from 62% to 43% and their numbers dropped from 61% to 50%. And the incomes of the bottom tier dropped from 9% of the total to 8% while their numbers rose from 25% to 29%.

In 1983, upper-income households had three times the net assets of those in the middle but by 2013, they had seven times as much. The 2007-2009 Great Recession reduced the incomes and wealth of all income classes. Still, by 2013, the top tier median net assets had risen to $650,000, double their 1983 total, largely due to their considerable holding of stocks. Middle-income household wealth rose from $96,000 in 1983 to $161,000 in 2007, but dropped to $98,000 in 2010 and remained there in 2013. Note that those numbers do not follow specific households over time, and people can move from one category to another as their fortunes change.

Countering this increase in income polarization, until the last decade the purchasing power of the middle- and lower-income groups was still rising. But the unequalized distribution of wealth more recently has been coupled with declining real income for all but the top 10%—and the higher the income, the greater the gap (*Chart 24, page 9*). So most Americans have had declines in real income since 1999, as noted earlier (*Chart 25, page 10*).

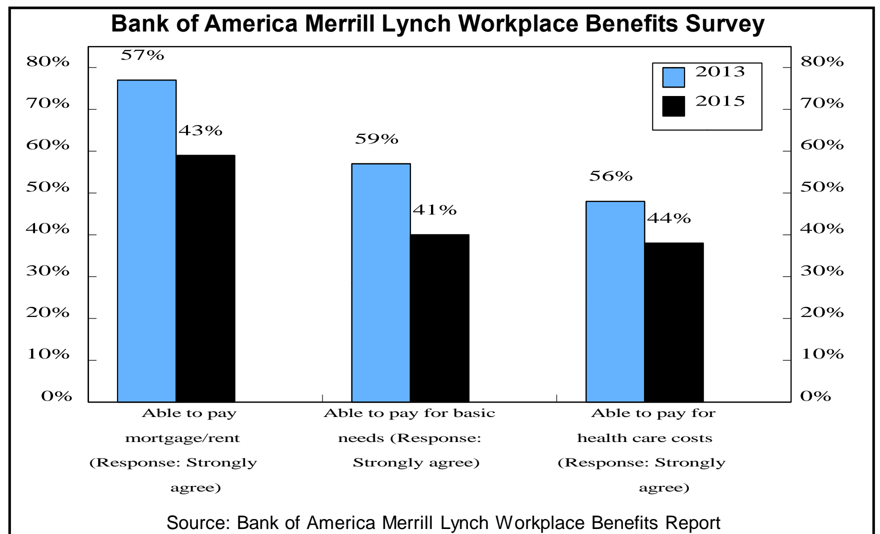
Inequality Is Overstated—
The effects of income polarization, as measured by Census Bureau data (Chart 22), are overstated somewhat since they don't include noncash welfare payments and other income that enhance low-income households' spending power. These include food stamps, rent subsidies and tax credits for working families. Noncash payments have risen over time, so the average household income including non-cash benefits for the bottom fifth of Americans was 73% higher in 2011 than in 1964, the year

CHART 16



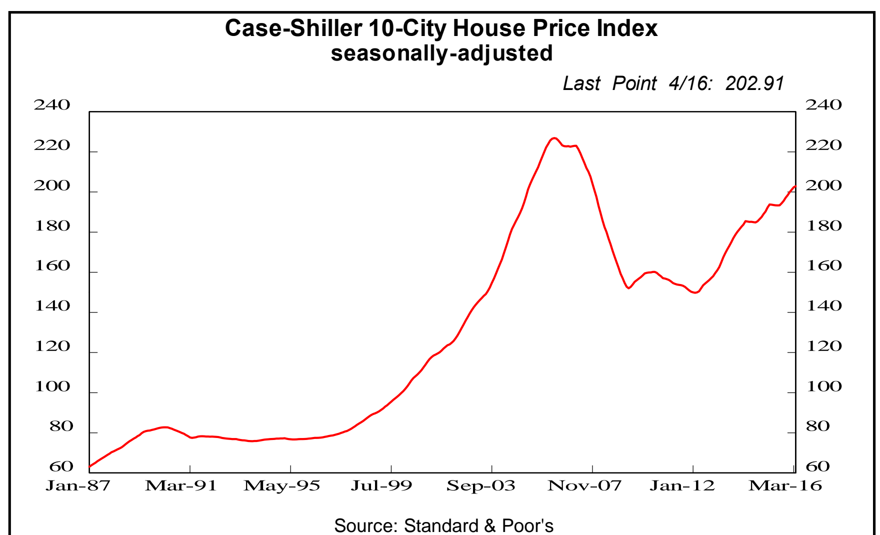
Source: *The Wall Street Journal*, Steven J. Davis and Till von Wachter

CHART 17



Source: Bank of America Merrill Lynch Workplace Benefits Report

CHART 18



Source: Standard & Poor's

that President Johnson announced the War on Poverty. Meanwhile, when only including cash earnings, average household income in that quintile increased just 43% (*Chart 26, page 10*). Last year, 45 million people received food stamps at an average of $127 per month, up from 3 million in 1969 who got $43, when adjusted for inflation.

Chart 27 (page 10) shows a comparison of income shares by quintile of Census data, which only looks at cash income, and Congressional Budget Office data, which includes non-cash benefits. Including non-cash benefits, income shares in the lowest two quintiles and the highest quintile are slightly higher, while income shares in the middle two quintiles are slightly lower. In the lowest quintile, the CBO income share is 66% higher than the Census estimate, while in the highest quintile, the CBO estimate is 2% higher.

—But Only Somewhat

Nevertheless, income shares by quintile over time published by the CBO including non-cash benefits (Chart 27) show a similar trend to income shares excluding these benefits (Chart 22). In both cases, income shares of all but the top 20% have declined over time while the top 20% has gained an increasing share of aggregate income. It is worth noting that medical benefits make up a sizeable and growing share of income in CBO's series, a fact that often accounts for the difference between trends in CBO's income data, which include these benefits, and other income series that do not.

Though official Census estimates may understate incomes among the bottom quintiles by not accounting for non-cash benefits, there is no denying that growing income inequality is a reality. A declining share of total income may not bother people much as long as their purchasing power is rising. But when combined with falling real income, the result in a lot of unhappy households that see themselves losing at the expense of fat

CHART 19

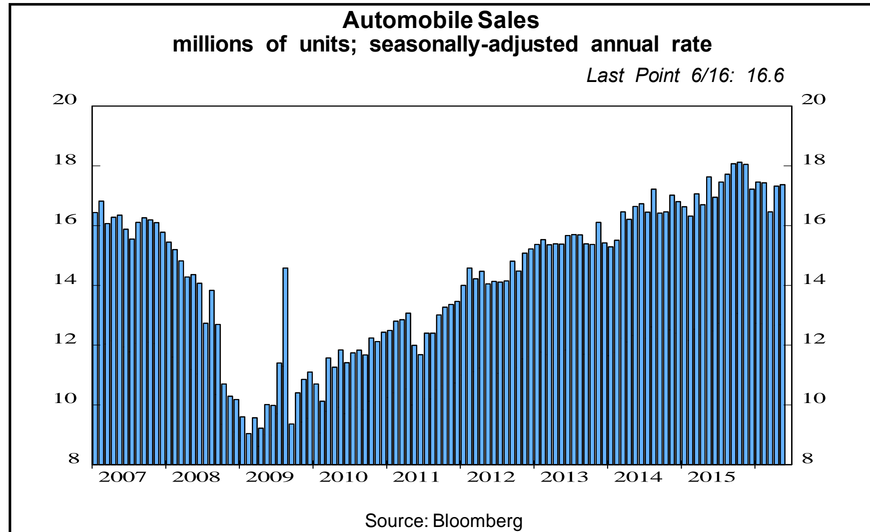


CHART 20

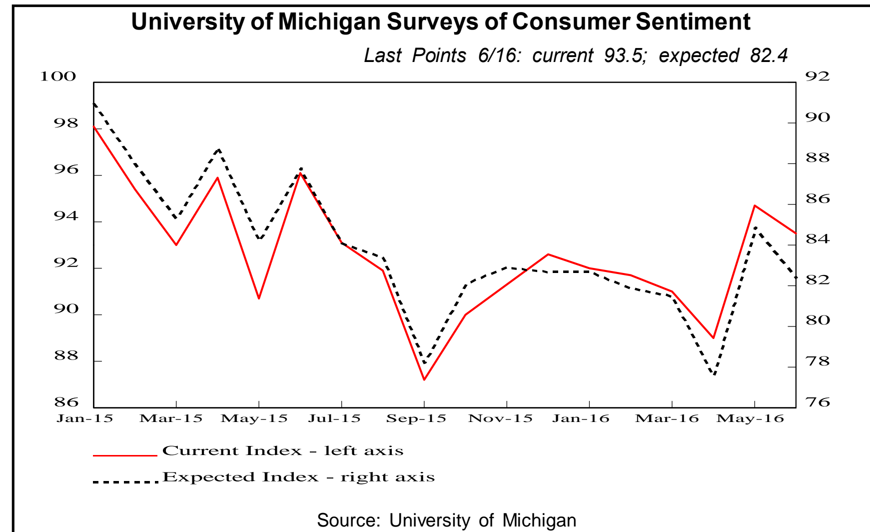
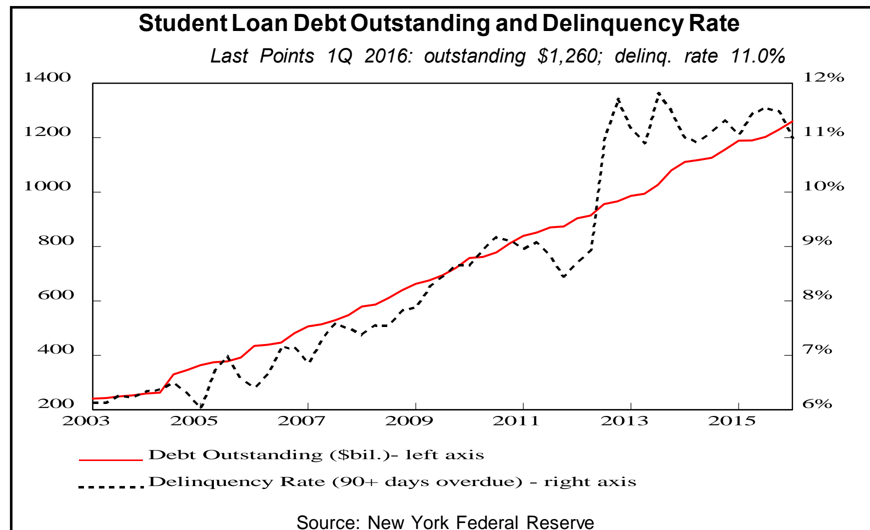


CHART 21



cat Wall Street bankers, foreigners as their jobs have been replaced by imported goods and services, and illegal and legal immigrants. Their reaction is reminiscent of that famous quote uttered by Howard Beale in the classic 1976 film, "Network": "I'm mad as hell and I'm not going to take this anymore!"

The rise in income inequality and the squeeze on middle-class earnings is not exclusive to the U.S. The ratio of total income received by the top 20% to the bottom 20% has increased across the eurozone since 2005 (*Chart 28, page 11*).

Brains and Skills

Meanwhile, the well-paid jobs that are proliferating require the brains and skills to compete in today's global economy. Despite the near-financial collapse in 2008, central bank money revived banks and other financial institutions here and abroad, and the incomes of professionals in that sector are huge compared to other sectors.

The male labor participation rate (*Chart 29, page 11*) continues to fall as high-paid jobs in the male-dominated manufacturing sector move to China and other low-cost emerging-market economies. Partly as a result, but also due to the sexual revolution that eliminated or at least postponed marriage, and better educations and job opportunities for women, they rushed into the labor force up until about 1990 (Chart 29). Some men also dropped out to live off their girlfriends, siblings and parents, welfare and disability payments or off-the-books jobs.

Sociologist Charles Murray believes that these and other phenomena such as the collapse of religious affiliations as well as the drop in the belief that America is a meritocracy have alienated the middle class, at least those who haven't been pushed down to self-perpetrating lower-class status. This, too, has fomented and broadened the "mad as hell" attitude of many Americans.

CHART 22

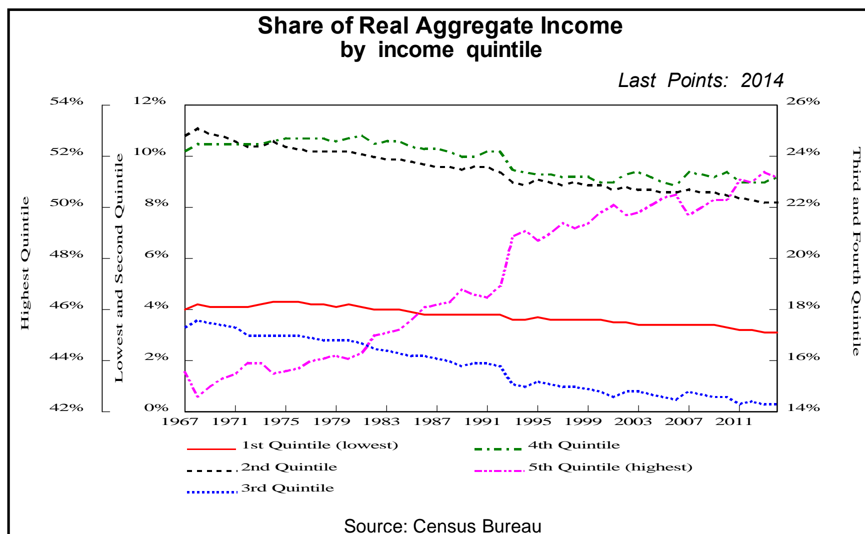


CHART 23

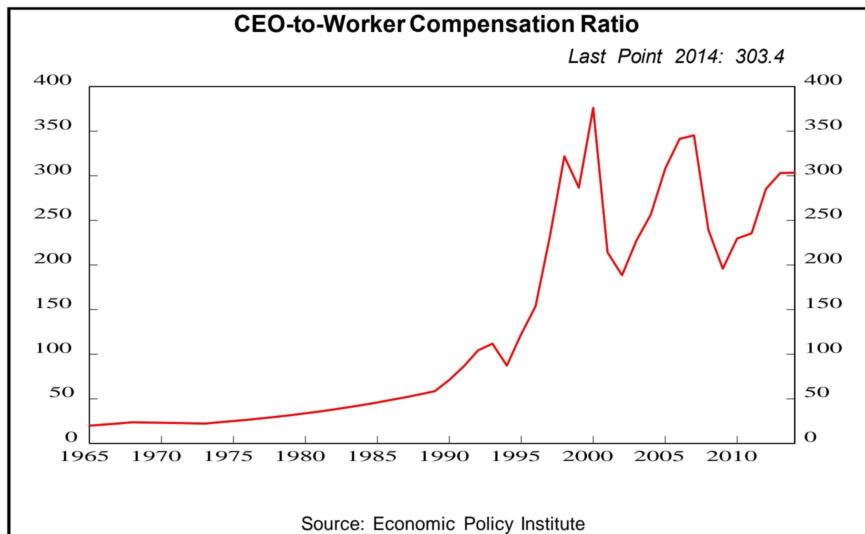
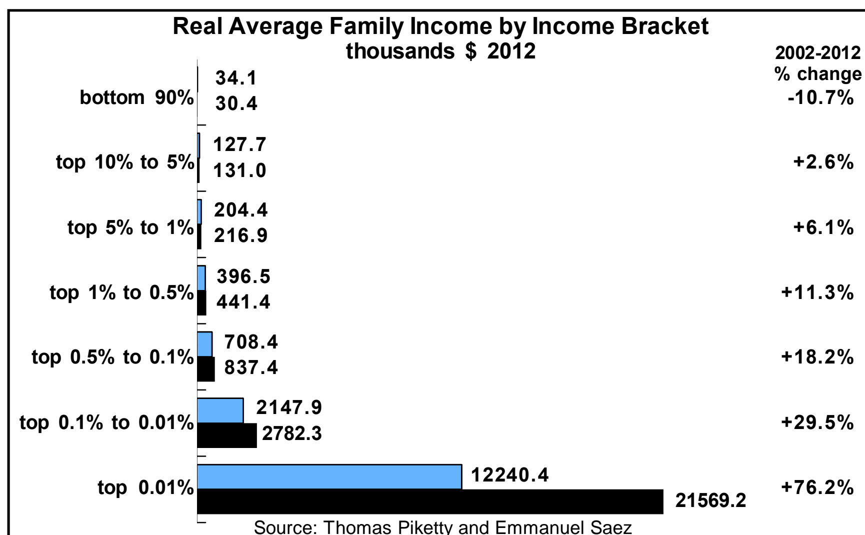


CHART 24



Our earlier reports noted that much of this frustration over lack of real income growth is being vented in the political arena, which many Americans weren't aware of until the presidential primary season got underway last year. U.S. voters blame mainstream politicians, and have turned to extremes on both the left and the right. A recent Pew Research Center poll found that 62% thought the GOP favors the wealthy, 26% believes it backs the middle class and only 2% think it favors the poor. As for Democrats, 26% say the party favors the rich, 32% the middle class and 31% the poor.

Job Destruction and Creation

Globalization eliminated many well-paid middle-income jobs in the West as manufacturing was transferred to China and other developing countries, but job destruction in the course of economic development is nothing new. Nor is the angst of the newly unemployed. Early in the Industrial Revolution in the late 1700s, hand weavers were being replaced by power looms so they ground their wooden shoes, called sabots, into the machinery to wreck it and preserve their jobs. Hence the word, "saboteur."

But industrialization normally creates more jobs than it destroys, even though some displaced workers never gain the necessary skills for the newly-created job. More people were needed to build and tend power looms as textile production leaped than the Silas Marners who lost their hand-weaving jobs. But the globalization in the last three decades has shifted jobs from the West to Asia so rapidly that replacement positions have not been created quickly enough to fill the gap. Also, as robot and other technology continue to replace humans, fewer people will be needed in many manufacturing and service areas.

Still, globalization appears to be largely completed. Most of the jobs that can profitably be moved from the West to Asia and elsewhere have been. Furthermore, "reshoring," or the

CHART 25

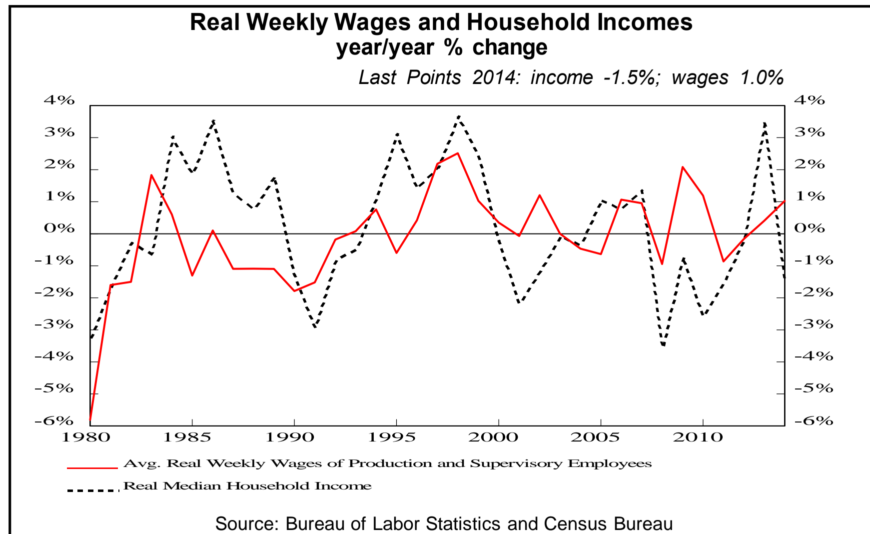


CHART 26

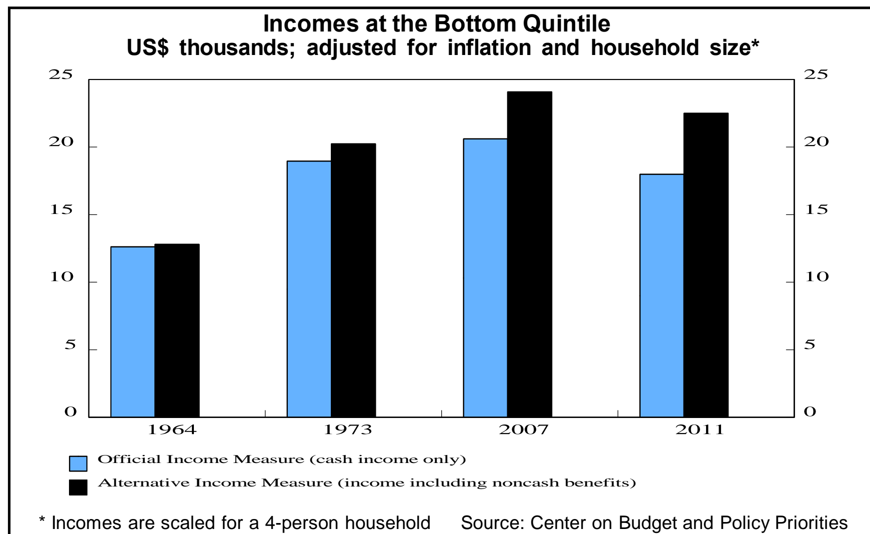
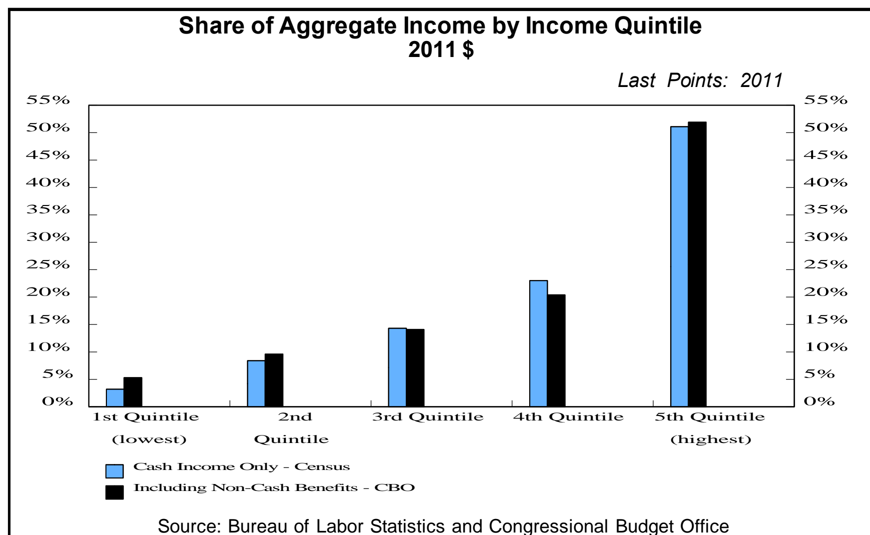


CHART 27



movement of manufacturing jobs back to Western countries, will be limited. New, viable businesses, such as additive manufacturing, are more capital- and technology-intensive, not labor-intensive, as noted earlier. *Chart 30* shows that U.S. manufacturing's share of GDP fell steadily from 17% in the late 1990s to 12% in 2008, but has remained at that level ever since.

Also, as economies develop, consumption of services grows faster than goods (*Chart 31, page 12*). Higher incomes might not result in another auto purchases when there are already four in the driveway, but spending on health care and recreation is almost limitless. Since most services are produced domestically—haircuts can't be imported—globalization does have natural limits.

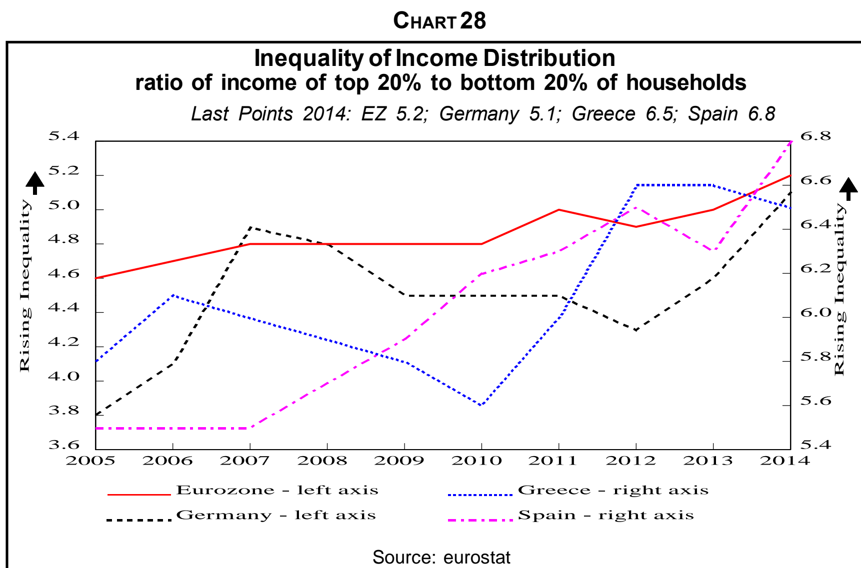
Immigration

Many middle-income Americans and Europeans believe that the squeeze on their incomes is largely due to immigrants and that jobs are being taken from them by newcomers, especially illegals who are willing to work for low wages and are thought to compress wage scales in general. To be sure, many jobs in this country such as farm work, landscaping and low-end construction are done by Hispanics that natives refuse to touch, and by Turks and other Muslims in Western Europe.

The U.S. has been importing people for 400 years. We're a nation of immigrants. Someone can enter with a three-month tourist visa, disappear into the population and stay indefinitely. In contrast, Europe has been exporting people for four centuries and, until recently, controlled immigration much more tightly. When you go to a hotel in, say, Paris, and the desk clerk asks for your passport, that information goes directly to the police, who then know where you are at all times from arrival to departure.

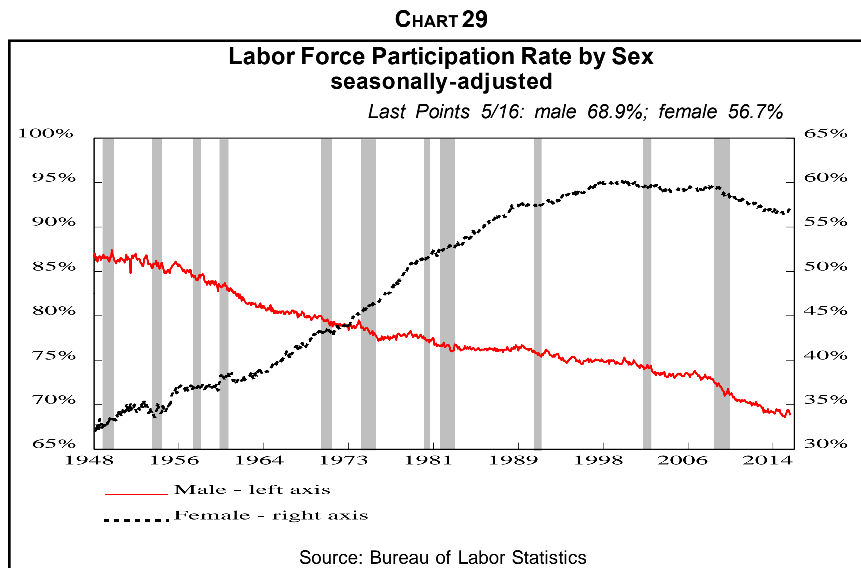
Chart 32 (*page 12*) shows that the U.S., along with other countries colonized by

Chart 28



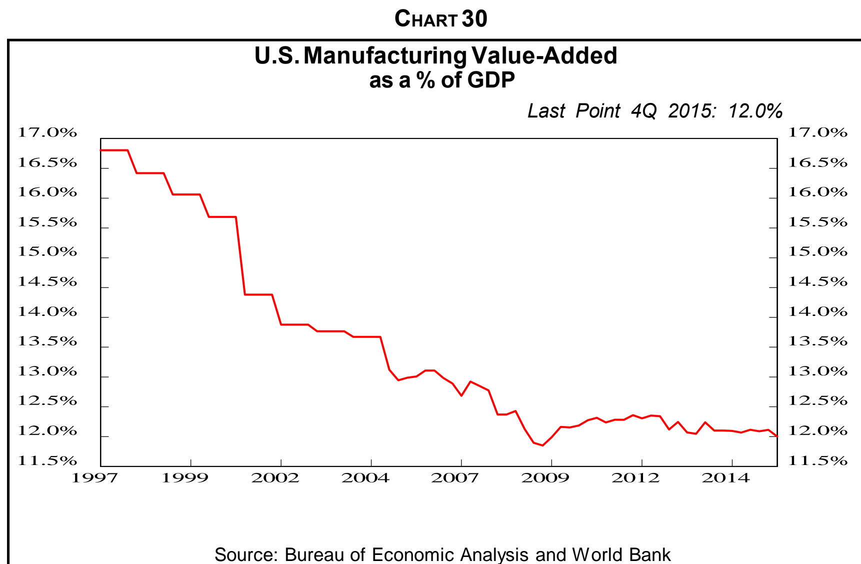
Source: eurostat

Chart 29



Source: Bureau of Labor Statistics

Chart 30



Source: Bureau of Economic Analysis and World Bank

Europeans such as Canada, Australia and New Zealand, tend to have higher percentages of foreign-born people than in Europe. But the increases in Europe have been much greater since 2000 as people moved from Eastern Europe to better jobs in the West and, more recently, from Syria and other Middle East countries.

On balance, immigration is a much greater concern for Europeans, especially the British whose island nation has always given them the sense of being separate. Recall that the U.K. never joined the eurozone and therefore didn't adopt the euro and retains sterling as its currency. Notice (*Chart 33, opposite page*) the shift from exporting people in the 1960s and 1970s to the huge migration since the EU was founded in 1993. Some of the poorest regions of the U.K. were the strongest supporters of Brexit as natives feared job losses to foreigners.

Germany, still making amends for her Nazi past, has been especially open to immigrants, especially from Syria and other Middle East troubled countries (*Chart 34, opposite page*). Still, Chancellor Angela Merkel's open door policy is being challenged by the three-year-old anti-immigration Alternative for Germany party, which made strong gains in March's state elections. The party's recently-adopted policy platform says, "Islam does not belong in Germany," and calls for a ban on the construction of mosques.

CHART 31

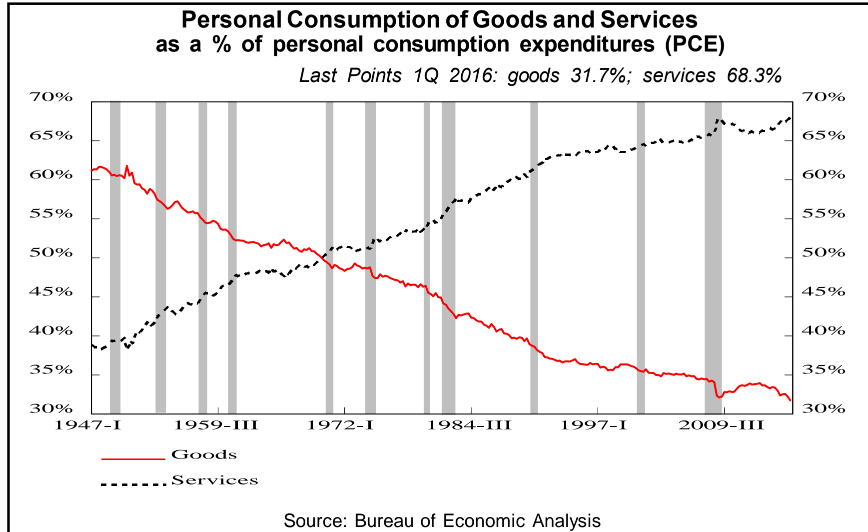


CHART 32

International Migrant Stock
number of people born in a foreign country; millions

	2015	Foreign-Born as % of total population	% increase from 2000
Spain	5.85	12.6%	253.2%
Italy	5.79	9.5%	172.8%
U.K.	8.54	13.2%	80.6%
Belgium	1.39	12.3%	62.6%
EU	54.07	10.6%	57.5%
Switzerland	2.44	29.5%	55.3%
Australia	6.76	28.4%	54.2%
New Zealand	1.04	22.9%	53.2%
Austria	1.49	17.4%	49.8%
Canada	7.84	21.8%	42.2%
U.S.	46.63	14.5%	33.9%
Germany	12.01	14.8%	33.5%
Netherlands	1.98	11.7%	27.2%
France	7.78	11.7%	24.0%
Greece	1.24	11.5%	11.8%

Source: World Bank

Terrorism

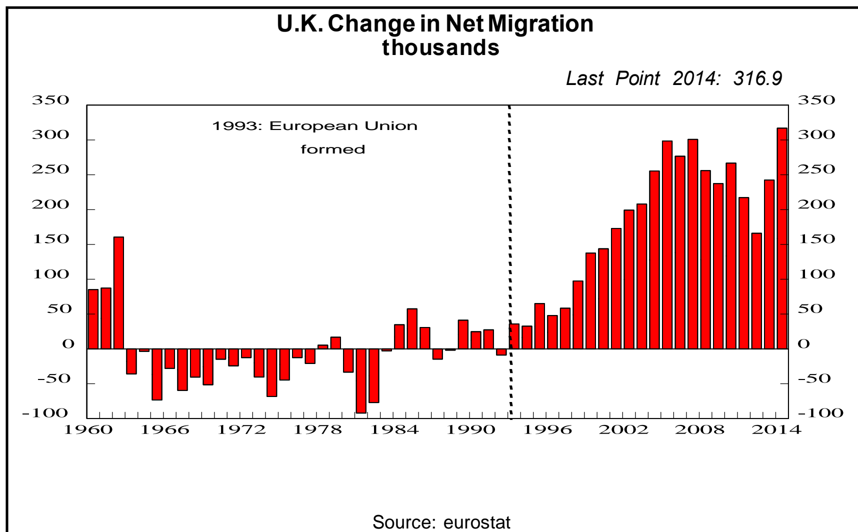
Unlike "melting pot" America where most foreigners come to become Americans, Europe and the U.K. have had much less success in integrating newcomers. This lack of integration has made people there much more sensitive to terrorist and therefore suspicious of Muslims. Memories of Charlie Hebdo in Paris, the Brussels airport attack and the Paris attacks and even 9/11 and the Boston Marathon bombing in 2013 loom.

Of course, the 9/11 attacks precipitated the U.S. military action in Afghanistan, but it was aimed at terrorists, not Muslims. President Obama recently tried to distinguish between the two when he said the current bad guys are terrorists, not adherents to the Muslim faith. Well, from their standpoint, they are deeply religious. We in the West, where religion has not been a major political force for about 400 years, have trouble realizing that some Muslims take their faith so seriously that they're willing to die for it.

In any event, despite the trauma of 9/11, there's been no widespread attempts to run Muslims out of America. But the situation in Europe is quite different. Many Western European countries, including Germany, the Netherlands and Sweden, have long espoused multiculturalism, which places few demands on immigrants to integrate by learning the language and customs of their new residence. Some, such as Switzerland, treat these newcomers as permanent foreigners with high bars for citizenship.

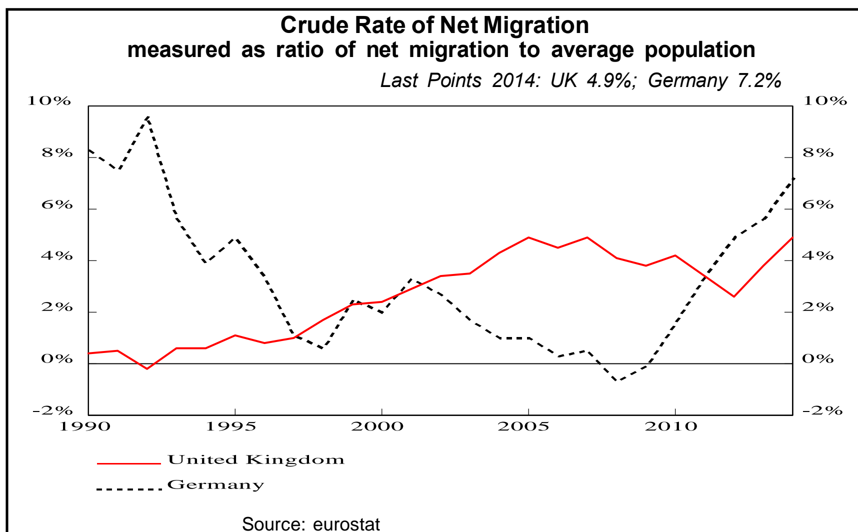
With thousands of European Muslims leaving to join the Islamic State and other jihadist groups, there was widespread recognition that this strategy has failed. About 20,000 foreigners have joined the extremists in Syria and Iraq, including over 3,400 from Europe. The failure of the multicultural model is especially true in France where her secular integration approach holds that as long as people accept liberty, equality and fraternity, they can do and believe whatever they like.

CHART 33



Studies show that the backlash over immigration is linked to concerns over national identity and control over borders. Also, the size of migrant populations is less worrisome than its growth, which has been leaping in Western Europe (Chart 33). In recent years, the influx of foreign-born to the U.K. has been fueled by a stronger job market than in most Continental countries. The news in May that net U.K. immigration hit a total year record of 333,000—well above the government's target of 100,000—clearly fueled Brexit voters.

CHART 34



Nevertheless, people are much more supportive of skilled, legal immigrants who speak the language than of unskilled illegals who don't. Australia and Canada have point systems that favor immigrants who speak English, or French in Canada, and have high levels of education and job skills as well as family sponsorship. Michael Gove, who hopes to be Britain's next prime minister, wants to limit immigration and introduce an Australian-style point system,. In contrast, EU policy allows anyone from any of the 28 countries in the bloc to live and work anywhere, including in the U.K.

Historical Precedents

The purchasing power of the vast majority of Americans and Europeans as well as Japanese has been falling for over a decade, as noted earlier (Charts 5, 6 and 28) History shows, repeatedly, that after prolonged periods of income weakness, people reacted. Back before there were popularly-elected governments that could respond to unhappiness before it boiled over, those popular reactions tended to be violent. That was true of the French Revolution of 1789-1799, the Revolutions of 1848 that began in Sicily and spread throughout Europe, and the 1917 Russian Revolution.

Today, with popularly-elected governments in most developed countries, the ballot box has replaced armed uprisings as the usual method of effecting political change. And after many years of declining real income and high unemployment in many countries (*Chart 35, page 14*), splinter political parties on the left and the right are challenging mainstream politicians. And Brexit is a political shock, the culmination of growing populist movements. On the left, the Occupy Wall Street group reacted to the huge pay disparity between its members and Wall Street bankers.

An early expression was the conservative Tea Party in the U.S., which rebelled against government bailouts of Wall Street and the auto industry after the 2008 financial crisis. Furthermore, since 1994, more and more Americans are

consistently liberal and consistently conservative while those in the middle are declining in numbers (*Chart 36*). In Europe, populism goes beyond economics, with far right parties thriving in relatively prosperous countries like Austria, the Netherlands and France (*Chart 37*). The movement, which generally opposes globalization, immigration and the EU, is epitomized by the National Front in France but also is especially striking in Central Europe, which has long seen European integration as the means of healing the wounds of Nazism and communism.

Versus All-Out War

This is a complete about-face from the post-World War II strategy of creating an integrated Europe, both politically and economically, to promote peace and prosperity. In fact, immediately after the war, French and German leaders believed this was necessary to break the centuries-old means of communications: All-out war.

They first formed the European Coal and Steel Community in 1952. Five years later, Belgium, France, Italy, Luxembourg, the Netherlands and West Germany signed the Treaty of Rome, which created the European Economic Community (EEC) and established a customs union. The 1967 Merger Treaty created the European Communities, which was enlarged during the 1970s and 1980s. The 1985 Schengen Agreement paved the way for the creation of open borders without passport controls between most member states and some non-member states. The European Union itself was established when the Maastricht Treaty came into force in November 1993 and the euro became the EU's common currency in 1999.

Nevertheless, that body, which combined the Teutonic North with the Club Med South under one currency, lacks a common fiscal policy. And none is probably possible given the vast economic and cultural differences among

CHART 35

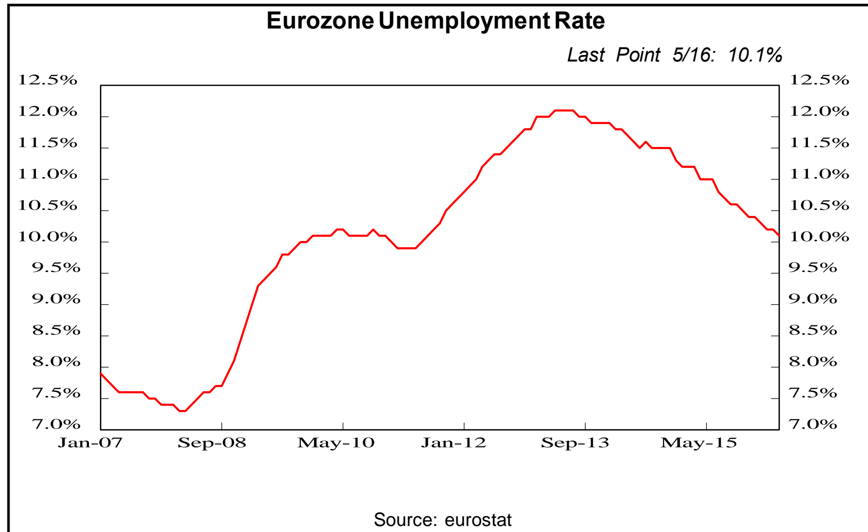


CHART 36

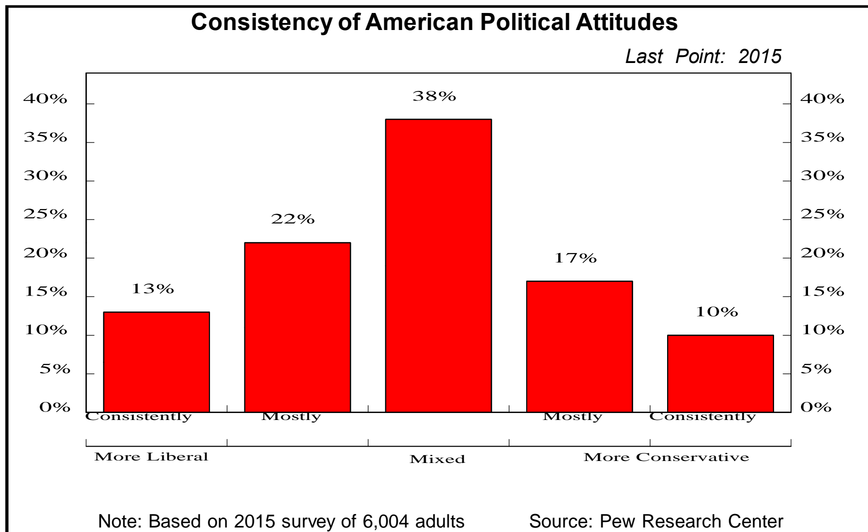
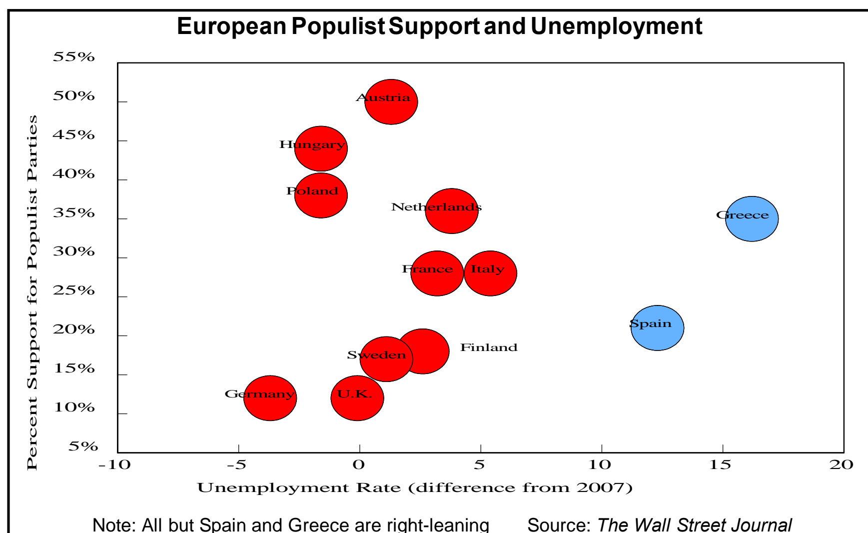


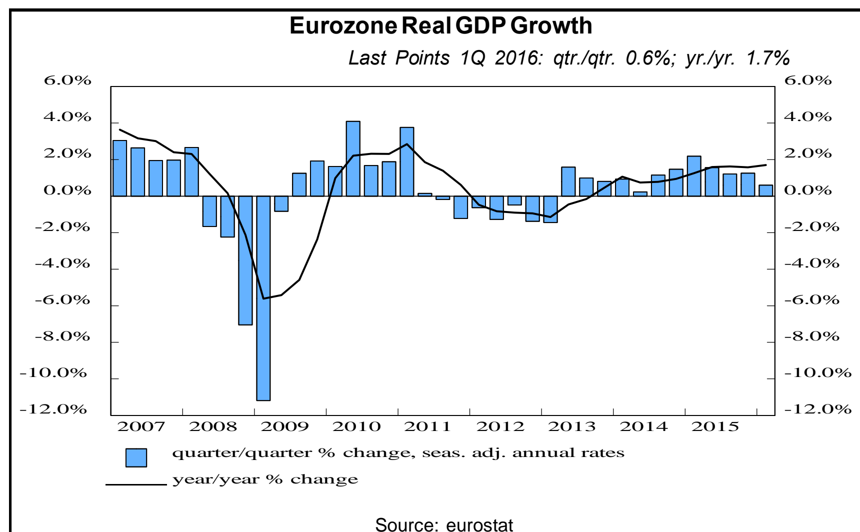
CHART 37



the 19 eurozone countries.

Brexit tells us that it is very difficult to keep different cultures together. That's especially so in less-than-prosperous times or when they don't face a common threat like communism during the Cold War or when there isn't an empire such as Rome in ancient times to vigorously maintain order or the British Empire in the 19th century with colonialism.

CHART 38



An interesting example of the fragmentation of society after the collapse of Rome is found in a scholarly study of preaching in Europe in the 12th century by my good friend Giles Constable, a former faculty member of the Institute for Advanced Studies at Princeton. By the 1100s, communications had deteriorated to the point that people only short distances apart spoke different languages and few knew any Latin, the language of Rome and the Church. So, many congregations understood almost none of the words of itinerant preachers, but they still stirred up considerable religious feeling and reduced people to tears with the way they spoke and by their character and appearance.

Fragmentation

Today, Brexit threatens contagion and further defections from the EU. Scotland voted 62% to 38% to stay in the EU, but when Brexit passed 52% to 48%, Nicola Sturgeon, the leader of Scotland's semi-autonomous government, said that a second independence referendum was "very much on the table," even though the first one failed in 2014. In the wake of Brexit, aggressive populist movements in France, the Netherlands and elsewhere have asked for their own EU referendums. In Italy, the anti-establishment 5 Star Movement, founded by comedian-turned-politician Beppe Grillo, called for a national referendum on leaving the euro after winning the Rome mayoral race.

The far right, anti-immigration National Front in France is gaining strength, and its leader, Marine Le Pen, may be the next president of France, given that country's splintered party system. Far right Alternative for Germany has won state elections as has far left Podemos in Spain, while populist parties rule in Hungary and Poland. Far right and extreme left parties in Spain, Italy and Germany are reacting to immigration, slow economic growth (*Chart 38)* and high unemployment (Chart 37). Last year, the anti-immigration Danish People's Party achieved such strong election results that it forced the centrist government to take tougher measures to keep foreigners out. All these populist movements appeal to voters who do not believe mainstream politicians have done their jobs properly and delivered satisfactory economic growth.

In Spain, last December's election resulted in a hung parliament. Prime Minister Mariano Rajoy's conservative Popular Party did better in the June re-run, but without achieving a majority. Also last month, corruption-weary Mexican voters walloped President Pena Nieto's ruling Institutional Revolutionary Party in gubernatorial elections.

Italy's far right Northern League is both anti-EU and anti-immigration and wants Italy to leave the eurozone. Its leader, Matteo Salvini, opposes Islamic fundamentalists who he says want to occupy the West. "An attempted military and cultural occupation is under way on the part of a domineering, well-organized community, which can easily slice through the mass of butter that is the West," he said the day after the Paris attacks. "Responding with tolerance and benevolence is tantamount to suicide."

Hungary plans a referendum in October on migrants as Prime Minister Viktor Orban challenges EU immigration policy. Hungarian voters will be asked, "Do you want the EU to be able, even without the approval of the Hungarian parliament, to prescribe mandatory relocation of non-Hungarian nationals to Hungary?" This sounds like Napoleon's plebiscites, which were always worded in favor of the Emperor of France. In any event, Orban threatens to raise the question of EU membership if a satisfactory compromise on refugee quotas isn't reached.

The rise of anti-establishment lawmakers in Australia, especially in the upper house, the Senate, where laws are passed, has prevented the recent election from giving a

mandate to either the ruling conservative Liberal-National coalition or the main center-left Labor opposition. The "mad as hell" dissidents rail against immigrants, especially Muslims, free trade and same-sex marriage. The threat of being "swamped by Asians" is emphasized by Pauline Hanson, leader of the far right One Nation party.

Australia has enjoyed 24 years without a recession, but her government debt growth is among the fastest in the world. As a result of this problem and the inconclusive election, Standard & Poor's threatens to cut Australia's rare triple-A credit rating.

Other Populist Parties

In Austria, an independent candidate who was the former head of the Green Party was just elected to the largely ceremonial post of president, but that was only after the two centrist parties—which have dominated Austrian politics since World War II but didn't even make it into the runoff—supported him against Norbert Hofer, leader of the anti-immigration Freedom Party. Earlier, the center-left Chancellor of Austria resigned after his party lost in the initial round of the presidential vote.

The far right Sweden Democrat party won 13% of the vote in the September 2014 election, giving it 49 of the 349 seats in parliament. The neofascist Golden Dawn party in Greece was founded in 1980 but came to international attention when it won 18 seats in the Greek parliament in 2012. It has conducted marches in several areas where migrants are camped, apparently to drive them out as it warns of the "Islamization of Greece."

In the Philippines, voters turned their backs on the political elite and elected Rodrigo Duterte, whose plans for national renewal include a violent crackdown on crime. During the campaign, he promised to kill criminals and end crime and corruption within six months. As mayor of Davao since the 1980s, he's credited with restoring law and order by allowing vigilantes to kill more than 1,000 suspected criminals. And he promises to kill tens of thousands more.

"Kill them all," he told a rally in March, referring to criminals and suspects. "They will be given the right to remain silent—forever." Since the election, police killed 54 suspected drug dealers in just six weeks and 39 during the campaign season from January 1 to May 9. Authorities are offering money for dead criminals and suspects, and Duterte plans to use leftover campaign money to pay for deceased drug lords.

We saw a bit of the corruption problem in the Philippines while visiting friends in Manila some years ago. Our driver was pulled over by the cops for making an illegal left turn. Of course, our host immediately settled the matter by paying them off. But the car stalled before we could proceed, so the policeman cheerfully pushed it to get it started. Business as usual!

In Canada, leftist Justin Trudeau replaced conservative Stephen Harper as Prime Minister last year. The head of Britain's Labour Party, Jeremy Corbyn, is distinctly on the left and harkens back to the trade union-dominated Labour Party of yesteryear. Previous Labour party heads resembled Margaret Thatcher with an emphasis on enlarging the economic pie so everyone got a bigger slice rather than the traditional Labour view that the pie was a fixed size so the objective was to take a bigger piece from the capitalists.

Bernie And Trump

Back in the States, the strong showing in the Democratic primaries by avid socialist Bernie Sanders and his plan for free college tuition and Medicare for all as well as high taxes on the rich bore witness to the depths of populism. Bernie also wanted to break up the big banks and raise the minimum wage to $15 per hour. In the same boat, but at the other end, is Donald Trump, with his anti-immigration and highly-protectionist plans, including the wall on the Mexican border that Mexico will pay for, steep tariffs on imports from China and Mexico, the deportation of illegals and an end to Muslim immigration.

Trump recently said he'd exit the North American Free Trade Agreement if it isn't renegotiated and would label China a currency manipulator while killing the Trans-Pacific Partnership, the Pacific Rim trade pact now being considered. He also yearns for the 18th century when the federal government was funded largely by tariffs. "Our original Constitution did not even have an income tax. Instead, it had tariffs—emphasizing taxation on foreign, not domestic, production."

It seems strange that U.S. voters are attracted to these two men who have nothing in common except for their wild promises to junk the current economic, financial, foreign relations and trade systems and replace them with schemes they say will benefit their supporters.

Despite his wild plans, Trump appeals to working-class voters who have seen jobs disappear due to globalization. He also backs Brexit, saying that "our friends in Britain recently voted to take back control of their economy, politics and borders." Despite all his hyperbole and questionable plans, Trump clearly has struck a responsive chord with many Americans who believe it's time to take back America from regulators and bureaucrats who are out of touch with common people, from China and other countries that take advantage of America's zeal for free

trade to conduct unfair trade and thereby steal American jobs, and from illegal immigrants who also depress U.S. labor markets—or so his followers believe.

Brexit Promotes Uncertainty

Brexit has spawned tremendous uncertainty in the U.K. (*Chart 39*), the EU and, indeed, throughout the world, importantly due to questions over Britain's future relations with the EU. The British want full access to EU markets, and with the U.K.'s chronic and growing trade and current-account deficits, Britain needs all the access to export markets she can get (*Chart 40*). And full access to the EU's 440 million consumers is attractive. Britain might have to renegotiate trade pacts, country by country, to preserve current export and import tariffs.

CHART 39

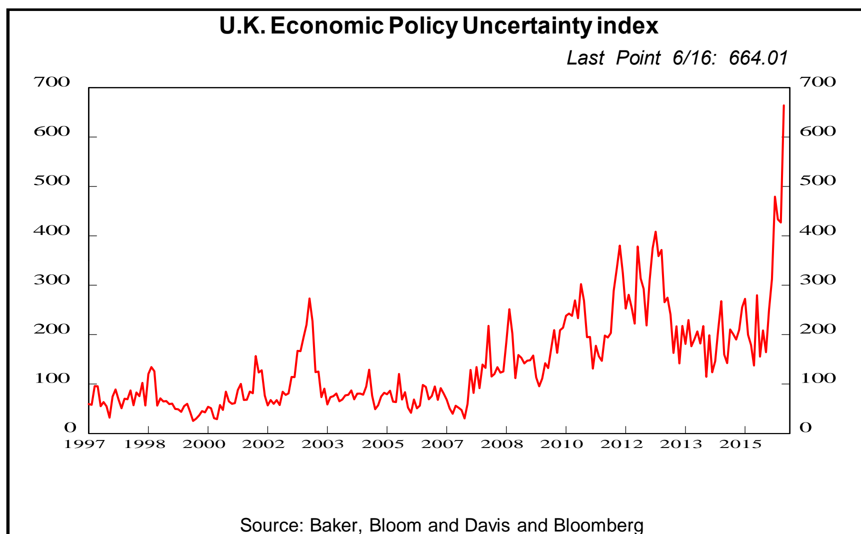
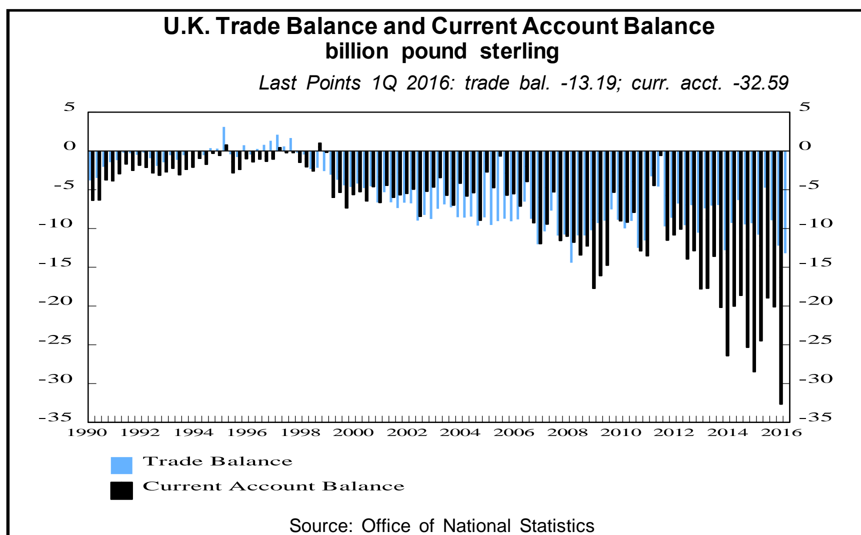


CHART 40



At the same time, the likely new U.K. leaders—to be installed this fall after the announced resignation of Prime Minister David Cameron, who backed Remain—want to limit immigration, as noted earlier. The government will now be able to "take back control of immigration policy," wrote Boris Johnson, the former mayor of London and a leading contender to succeed Cameron until he withdrew from consideration.

Also, the British want to limit payments to the EU budget and get out from under regulations emanating from Brussels. The British have always been suspicious of the EU leadership, which they see as overreaching in regulation, especially of Britain's huge financial sector that constitutes a huge 12% of GDP and 18% in London alone. In contrast, it accounts for 8% in the U.S.

Still, they would like U.K. institutions to continue to process financial transactions denominated in euros, an important piece of business in London. Nevertheless, European leaders, including German Chancellor Merkel and French President Hollande, responded that full access to the EU market means accepting free movement of people as well. The EU rules require "four freedoms"—free movement of labor, capital, goods and services.

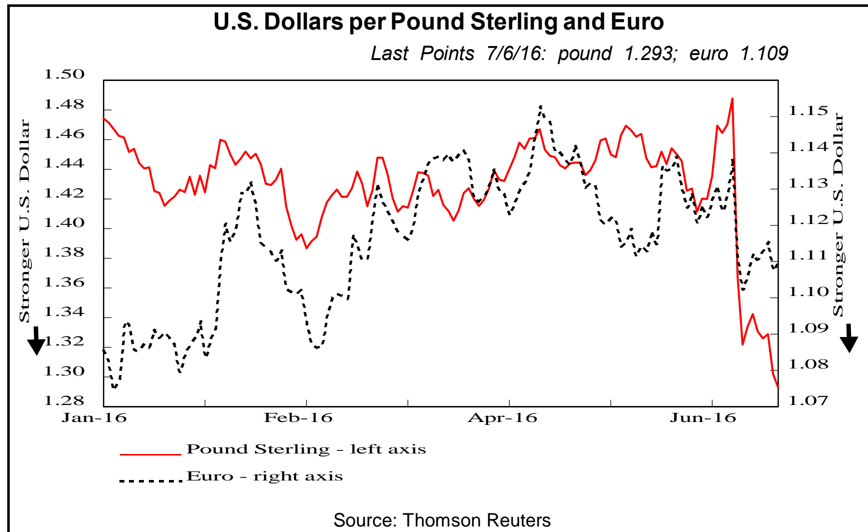
Uncertainty has prompted a number of EU leaders to urge a speedy exit for the U.K. As it is, the process will be lengthy. The Leave campaign wasn't a government-in-waiting and didn't establish any coherent strategy for what should happen if it won. In any event, nothing will happen until at least September when the new U.K. Prime Minister is installed. And the referendum was not mandatory and Brexit could be overruled by the British Parliament, which overwhelmingly wanted to remain.

To leave the EU, the new government would need to trigger Article 50 of the Lisbon Treaty. Then the U.K. and the EU would have two years to negotiate the departure and issues such as trade, immigration and security. If both sides agree, the negotiations could be extended for two years. Assuming Article 50 is invoked on November 1, the negotiations would run out on October 31, 2018 at the earliest and the departure date would be January 1, 2019—46 years to the day after the U.K. joined the EU.

Effects In The U.K.

Further adding to already-leaping uncertainty in the U.K. (Chart 39) is the possibility of a new election, due to either the ruling Conservative Party losing a vote of confidence or calling a snap election. Also, the opposition Labour Party is currently in disarray. In the first two days after the Brexit vote, more than two dozen senior Labour politicians resigned, saying they lost confidence in party leader Jeremy Corbyn and his weak support of the Remain campaign. Then Corbyn lost a nonbinding vote of no confidence by Labour MPs, 172 to 40, but refused to resign as party head. Last year he was elected by 60% of 400,000 votes cast by party members who elect their leader.

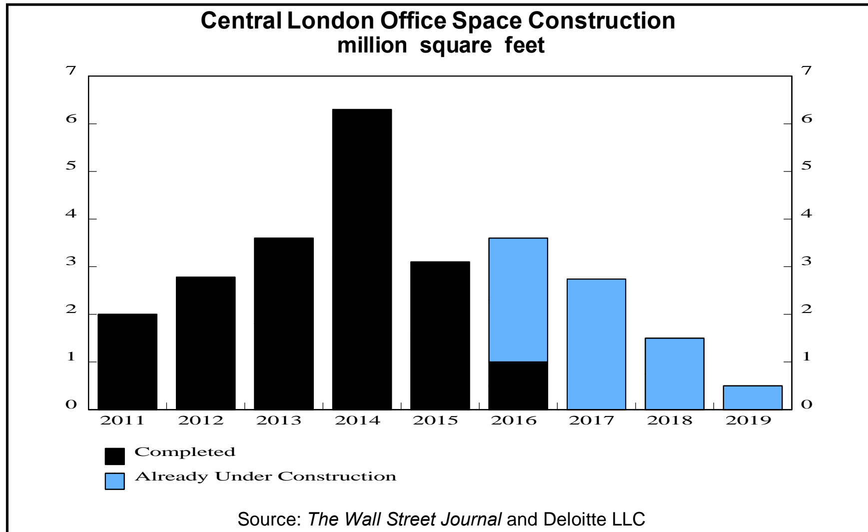
CHART 41



Source: Thomson Reuters

Boris Johnson, who backed the Leave campaign and earlier looked like a strong candidate to replace Cameron as Prime Minister, bowed out after his former ally and backer, Michael Gove, decided to run himself. And Nigel Farage, leader of the UKIP, stepped down even though that party had backed Brexit.

CHART 42



Source: *The Wall Street Journal* and Deloitte LLC

Brexit will probably depress the U.K. economy even if trade and financial relations with the remaining 27 EU countries are uninterrupted. Stocks of U.K. companies involved in office buildings, hotels, retail stores and other property have already swooned in anticipation of a less-integrated Europe. After investors rushed for redemptions, Standard Life Investments suspended trading in its $3.9 billion U.K. commercial real estate fund that invests in retail and warehouse properties.

Other U.K. businesses with exposure to foreign investors and EU businesses will no doubt finally get serious about the effects of Brexit. Few had any meaningful contingency plans to either defend against the fallout or take advantage of the opportunities. The collapse in sterling (*Chart 41*) aids U.K. exports by making them cheaper for foreign buyers, but increases the cost of imported parts and materials. Also, British firms with big dollar-denominated debt now have to come up with more pounds to service them.

London

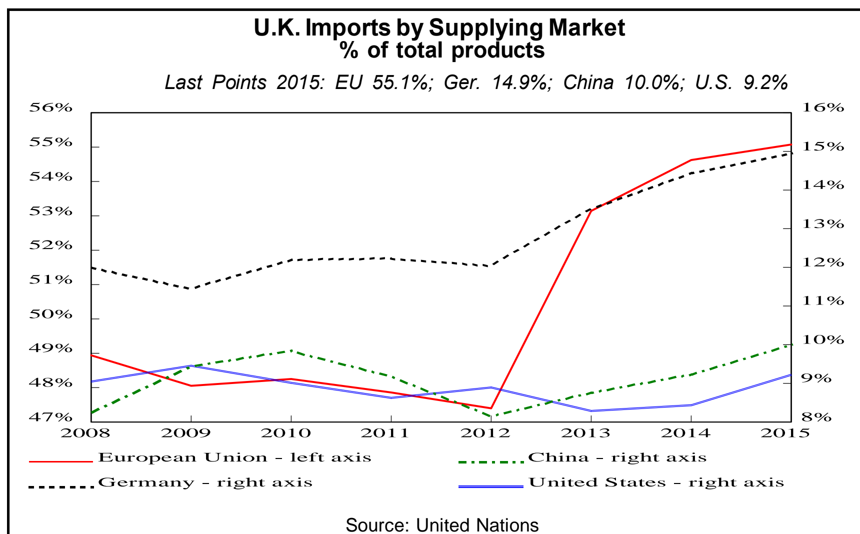
London, which has thrived as the financial capital of Europe and due to its glittering and livable image, could lose 100,000 jobs, according to one estimate. Office values could drop 15% to 20% while house prices fall 10% to 20%. London has been a red hot property market in recent years and, in response, construction has leaped with many more office buildings yet to come on stream (*Chart 42*). But demand started to drop early this year and prices are falling. House prices are also vulnerable since they are among the most expensive in the world due to overseas demand and immigration. The residence status of the 3 million citizens of other EU countries residing in the U.K. will also be in question.

Once outside the EU, however, the U.K. can make it a more attractive place for some businesses to locate. Free of the EU-coordinated tax rules, Britain could cut corporate taxes, grant more financial aid to troubled firms and

provide incentives to attract new businesses. The U.K. has been increasingly attractive for companies to establish their European headquarters due to steady reductions in corporate tax rates. But these moves, aimed at competing with low-tax rate Ireland, have been constrained by EU attempts to harmonize tax rates. The EU's antitrust agency has been cracking down on member states for handing out special tax deals to multinational companies.

Nevertheless, on June 30, Bank of England Governor Mark Carney said that U.K. growth will slow in coming months and that further cuts in interest rates and other credit-easing measures will be necessary "over the summer," possibly including renewed quantitative easing. Sterling tanked on the news (Chart 41).

CHART 43



Then it continued to drop on July 5 when Carney painted a somber picture of the U.K. economy and warned that the outlook for stability of the financial system had become "challenging." The Bank of England lowered capital requirements on U.K. banks to free up an extra $200 billion for lending to British businesses and households. That reversed its action in March that forced banks to hold more capital to cushion against financial woes, but now the BOE says it will hold to the new liberalized policy until at least June 2017. To drive home its desire that the increased funds be used for bank lending, the central bank simultaneously told banks not to use the extra money for dividends or other payouts. Further stimulative actions by the BOE are likely soon, including a reduction in the bank's 0.5% reference interest rate.

To add to the uncertainty, there now is a question whether the British pound will be supported by its inclusion, along with the dollar, yen, euro and yuan, in the IMF's prestigious reserve currency basket. Both Standard & Poor's and Fitch rating agencies have cut their ratings on U.K. sovereign debt, and both carry negative outlooks, suggesting further downgrades. At the end of 2015, sterling made up less than 5% of global foreign reserves, well behind the dollar at 64% and the euro at 20%, but still ahead of the yen. With Britain's persistent current account deficit (Chart 40), she depends on the confidence of foreigners in sterling to finance that gap by buying sterling-denominated assets.

Effects On EU

To some extent, the loss in jobs and financial and economic activity in the U.K. are the EU's gain, but the EU will still be a net loser. With the stronger growth in the U.K. vs. the EU (Chart 2), British imports from other EU lands, especially Germany, have been robust (*Chart 43*). So, slower growth in Britain will spread to the Continent. Germany's exports to Britain exceed its imports from the U.K. by double, and the U.K. is Germany's biggest export market after the U.S. and France.

Elsewhere, Brexit will set back long-running efforts to build a unified European financial system, creating further uncertainty. The project's head, a Briton working for the European Commission, is resigning as a result of Brexit. British officials have spearheaded a banking union with common standards to protect banks and unwind them if they collapse. Also, banks with large U.K. operations now wonder how they will be regulated there. Shifting from EU standards to those imposed by the U.K. will be a challenge for both foreign and British banks.

Another issues for the remaining EU members is the now-widespread use of English. Only Malta and Ireland will still have it as official languages. Although the EU has 24 official languages, only English, French and German are recognized official languages. English is the working language of the ECB and the EU headquarters in Brussels.

Also, English is the most efficient of any Western language since it is a combination of the verb-intensive Germanic and noun-dominated Romance languages. So there are generally two ways of saying things in English, allowing speakers to pick the shorter. On your next international flight, notice that English is always the shortest way of saying, "Don't throw foreign objects in the toilet" when the French, German, Spanish and Italian versions are also listed. Meanwhile, consider this: "defenestrate him," the

Romance version, has five syllables and 15 letters but the Germanic "throw him out the window" has six syllables and 19 letters.

Furthermore, in a bow to the post-Brexit zeal of EU members to have more individual power, the European Commission just announced that the EU's trade deal with Canada will need to be ratified by all of the bloc's 38 national and regional parliaments. Previously, the Commission maintained that the pact, completed in February, only needed ratification by the European Parliament and national trade ministers.

U.K. Jobs

Ironically, a major reason for U.K. immigration that helped inspire Brexit is the more rapid economic growth in Britain than elsewhere in the EU and the resulting job opportunities (*Chart 44*). Of course, the influx, especially of skilled workers, has promoted economic growth at a time when aging populations and low fertility rates are curbing growth in many developed economies (*Chart 45*) as is the decline in working-age people as a share of total population (*Chart 46*). This means there are more and more retirees to be supplied by goods and services produced by those still working. About half the new U.K. jobs have gone to Europeans and their numbers working in the U.K. have leaped by two-thirds since 2008 to 2.1 million.

European workers are attracted to the U.K. by the English language, which many learn in school, and the flexible labor laws that make it easy to get hired.

Chart 44

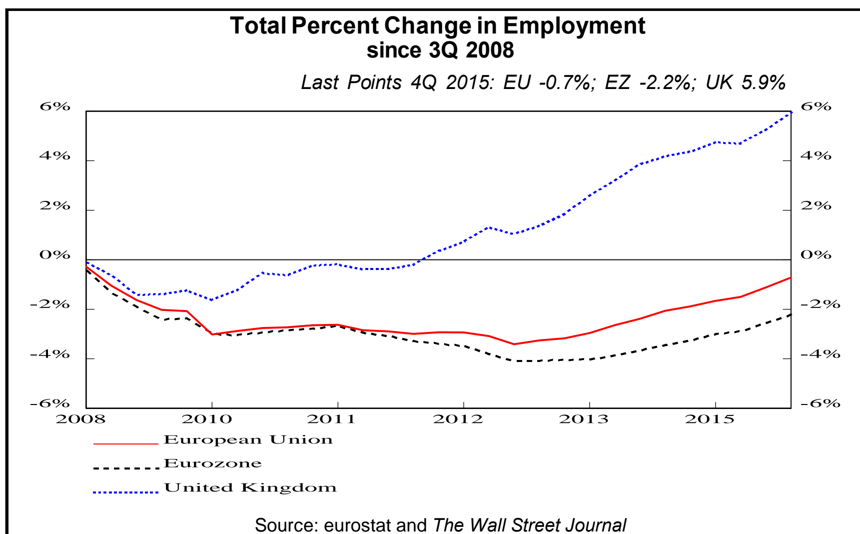


Chart 45

Fertility and Life Expectancy Rates: All Ages

	Fertility Rates* 2014 estimate	Total population	Life Expectancy Women	Life Expectancy Men
Japan	1.40	84.46	87.99	81.13
Australia	1.77	80.17	83.24	77.25
Italy	1.42	82.03	84.82	79.40
Canada	1.59	81.67	84.42	79.07
France	2.08	81.66	84.91	78.55
Spain	1.48	81.47	84.67	78.47
Netherlands	1.78	81.12	83.34	79.02
Germany	1.43	80.44	82.86	78.15
U.K.	1.90	80.42	82.69	78.26
Eurozone	1.55	81.50	84.10	78.70
South Korea	1.25	79.80	83.13	76.67
U.S.	2.01	79.56	81.94	77.11
China	1.55	75.15	77.43	73.09
Brazil	1.79	73.28	77.00	69.73
Russia	1.61	70.16	76.30	64.37
India	2.51	67.80	69.06	66.68

Note: Fertility rates are for all women Source: CIA and eurostat

Chart 46

Working Age Population
15-to-64-year-olds as a share of total population

	Canada	France	Germany	Italy	Japan	U.K.	U.S.	China
1960	59.0%	62.0%	67.2%	65.5%	64.1%	64.9%	60.0%	56.4%
1990	68.0%	65.9%	69.1%	68.6%	69.7%	65.3%	65.8%	66.0%
2010	69.5%	64.8%	66.1%	65.6%	64.0%	66.0%	66.9%	72.4%
2030	60.7%	59.4%	58.2%	60.3%	57.3%	61.3%	61.0%	68.9%
2040	59.7%	57.7%	55.2%	55.0%	53.4%	59.7%	60.3%	63.1%

Source: United Nations

In all 28 EU countries (*Chart 47*), employment is still 3 million short of the 225 million peak in late 2008. In contrast, the U.K. has added 1.8 million jobs to reach 31 million, more than even Germany where employment rose at a slower rate, by 1.6 million to 41 million. In the U.S., payroll employment's pre-crisis peak was 138.4 million in May 2014 and in May it stood at 143.9 million (Chart 13).

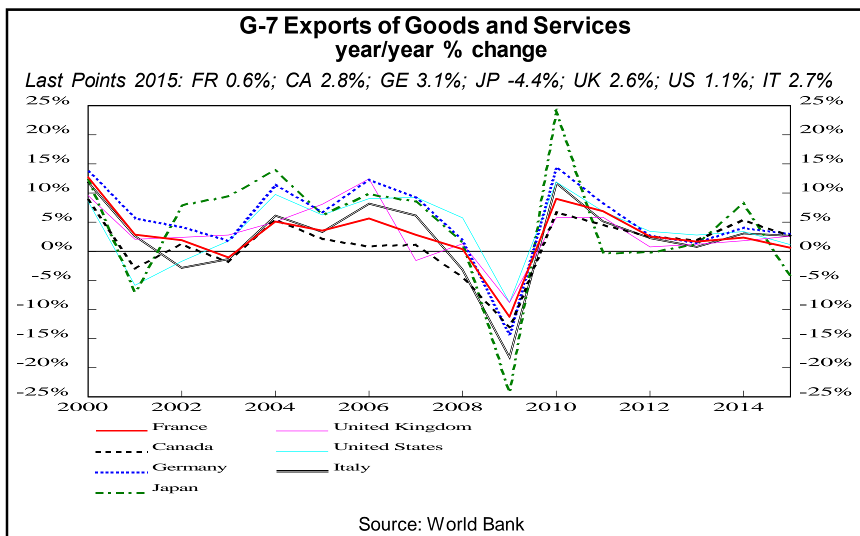
CHART 47

Eurozone and EU Countries

EUROZONE	Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, Spain
EUROPEAN UNION	Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom

Contagion is another serious threat to the members remaining in the EU after Brexit. As noted earlier, populist parties in many of those countries are calling for exit referendums. Probably in response, the EU leaders at their first meeting without the U.K. on June 29 expressed their determination to stay united, but showed no zeal for treaty changes—requiring unanimous consent—to bind the bloc closer together. Whistling past the graveyard?

CHART 48



Furthermore, Brexit implies that Britain, the EU's second-largest member, will no longer be around to represent and defend the other EU nations outside the eurozone, including Sweden, Poland, Hungary, Denmark, the Czech Republic, Romania, Bulgaria and Croatia (Chart 47). Many of these countries, including Britain, feel EU policy calling for a fiscal pact and centralization of financial sector supervision favors the eurozone. The EU, without the U.K., will have 85% of its total economy in the eurozone. Also, Germany, the largest EU member, wants Britain as a free-market ally against Southern European countries like France and Italy that are more protectionist and statist.

Global Trade

The slower global economic growth stemming from Brexit as well as populist emphasis on protectionism and anti-immigration is obviously detrimental to worldwide trade. It's already slowing in G-7 countries (*Chart 48*) as well as BRIC economies (*Chart 49, page 22*). And exports tend to be sizable percentages of GDP in most countries with the notably domestic-oriented U.S. economy the exception as well as economically-troubled Brazil (*Chart 50, page 22*).

In April, the IMF downgraded its estimate of global growth for this year to 3.2%, down 0.2 percentage points from its January projection. That's the fourth straight cut in a year and just over the 3% rate the IMF considers a recession. China's slowdown and weak commodity prices are slashing growth in emerging economies while developed countries are still struggling to escape the aftermath of the Great Recession and financial crisis. And these projections were made before Brexit.

Not surprisingly, zeal for free trade has been waning since 2008 when the financial crisis killed the Doha Round negotiations for lower trade barriers. Slow growth since then has encouraged most countries to promote their domestic economies with protectionism in many forms, including competitive devaluations to spur exports and retard imports. From 1992 to 2008, trade leaped from 20% of global output to 30%, but has been stagnant since then (*Chart 51, page 22*). Declining tariffs in developing and rich countries, which fell from 24% on average in 1990 to 8% in 2010, were big spurs to that earlier advance.

TPP

The Trans-Pacific Partnership trade proposal—which includes 12 nations on the Pacific Ocean such as Australia, Japan, Canada, Mexico and the U.S., but not China—is now on hold. Mainstream Democrats and Republicans in Congress are pressured by voters who believe free-trade deals lead to big job losses and depressed wages. Trump as well as Bernie Sanders and Hillary Clinton oppose TPP.

Polls show that more voters oppose free trade than support it, by 34% to 29%. Since that March survey, Brexit would no doubt further dampen interest in free trade, to the detriment of TPP as well as the planned Transatlantic Trade and Investment Partnership between the U.S. and the EU. Populist parties on the left and right all favor protectionism and oppose free trade.

Regardless of the opposition, TPP was never destined to be a big deal. Over 90% of U.S. exports to TPP members already are tariff-free, with the remaining levies almost entirely on agricultural, not manufactured, products. Private estimates are that TPP would only boost the U.S. economy by 0.5% by 2030. Another study by the U.S. government projects a 0.15% GDP gain by 2032 and a net increase in full-time jobs of just 128,000. Agricultural exports to Japan would rise and U.S. business services, retailers and wholesalers would gain marginally, but manufacturing would decrease due to more foreign competition. This government forecast calls for an actual rise in the trade deficit over 15 years as exports rise $27.2 billion but imports climb $48.9 billion.

Capital Spending

Many economists and politicians fault the lack of capital spending here and abroad for retarding economic growth and productivity, but what would you expect? With ample excess capacity (*Chart 52, opposite page*), there's little zeal to add more, so what plant and equipment growth there has been is

CHART 49

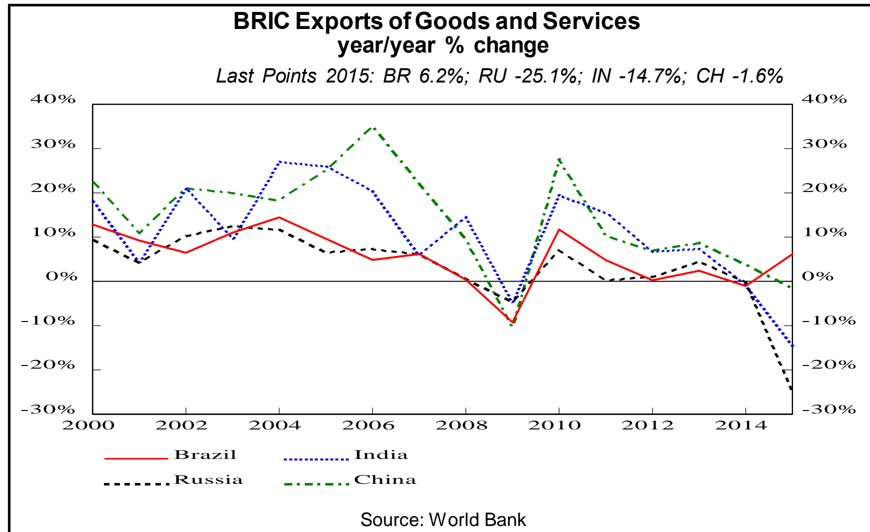


CHART 50

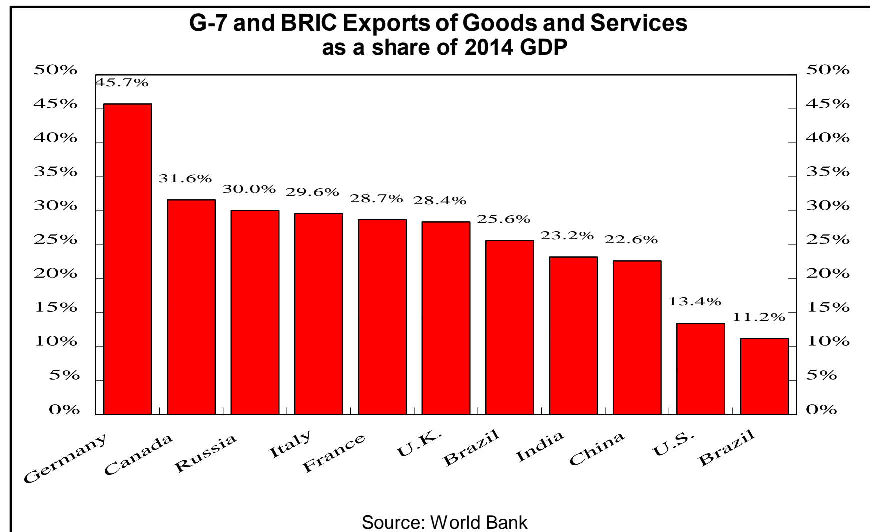
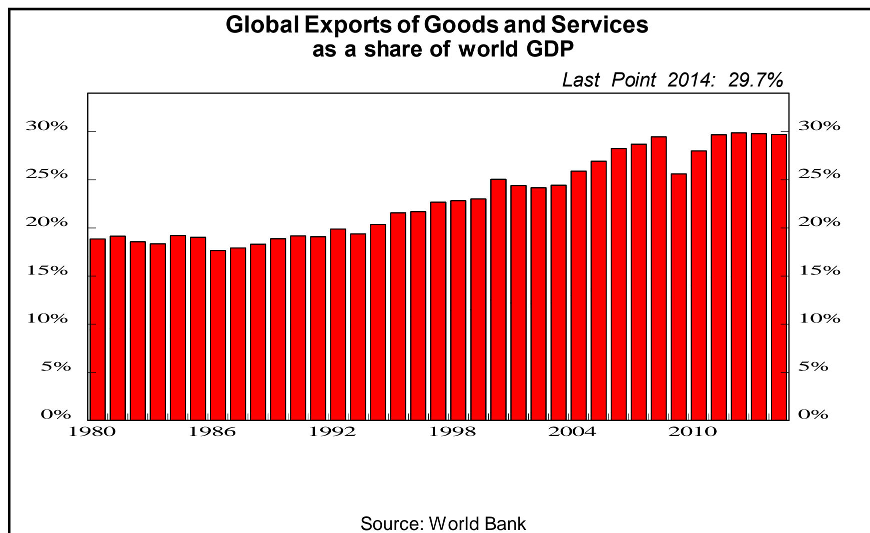


CHART 51



centered on cost-cutting. But even productivity-enhancing tech hardware and software is vulnerable to the global economic slowdown, which is magnified by Brexit. New orders for nondefense capital goods ex aircraft are a good forerunner of U.S. capital spending and have been falling, off 12% from the post-recession peak in September 2014. On a global basis, direct foreign investment, much of it aimed at capital spending, has been dropping as a share of GDP since the pre-Great Recession peak in 2007 (*Chart 53*).

Also, uncertainty over increasing government regulation and forecasts of slower growth in demand are deterrents. So are the strong dollar with its negative effects on exports, slow growth abroad, cutbacks in energy sector investment in the aftermath of the oil price collapse and the closing of retail stores as online sales leap (*Chart 54*). Brexit only adds to the spending hesitation as businesses wait for the smoke to clear.

In the first half of 2016, U.S. private sector bond issues backed by personal, corporate and real estate loans fell by $98 billion to $168 billion. This reflects the sluggishness in capital spending and investor retreat from risky assets. Also, new rules force issuers of these securities to hold some of the securities they create, making them less profitable. Brexit only adds to these deterrents.

CHART 52

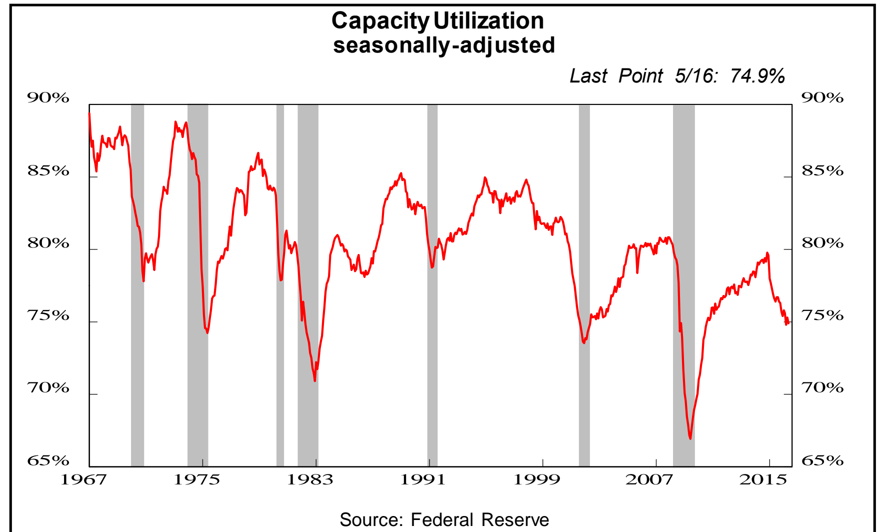


CHART 53

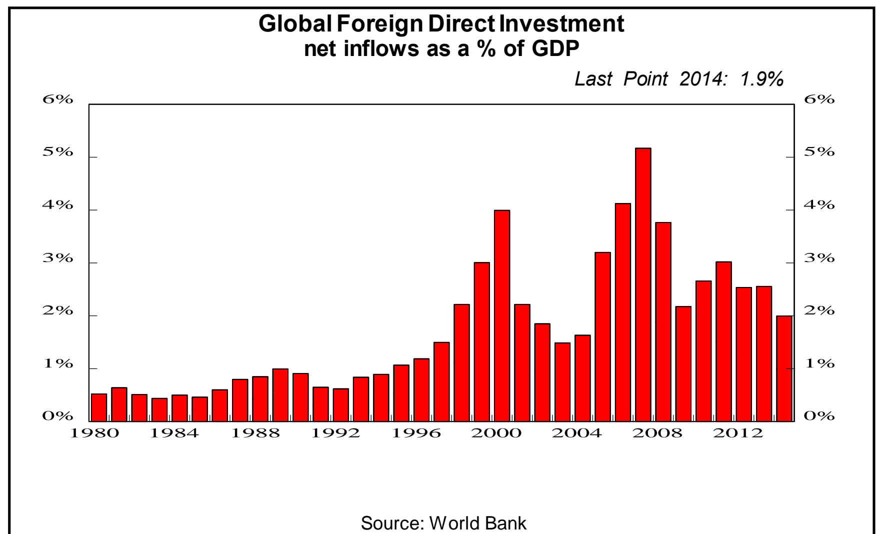
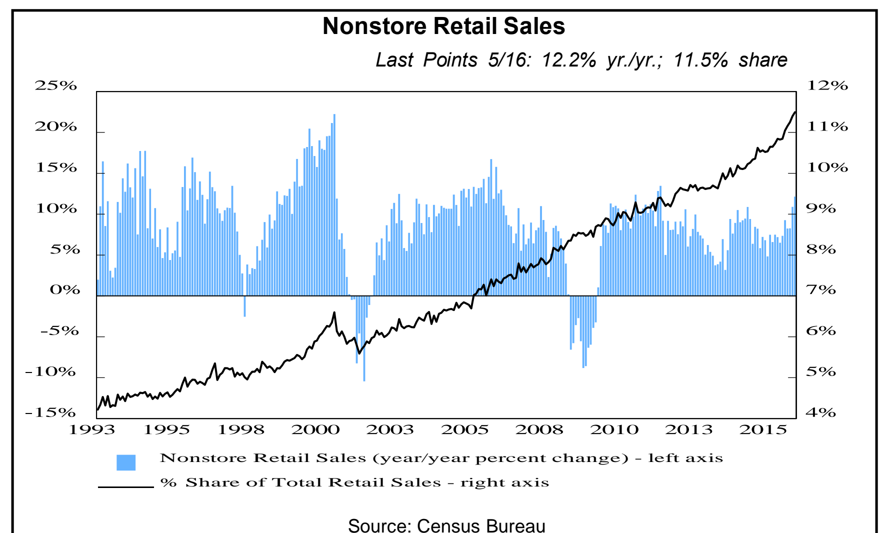


CHART 54



Effects Of Brexit

As discussed in "Even The Brits Are 'Mad As Hell'" (page 1), Brexit is the latest expression of many forces that already were reversing the post-World War II trends toward globalization, political integration, robust worldwide economic growth and rising global trade. Specifically, Brexit will:

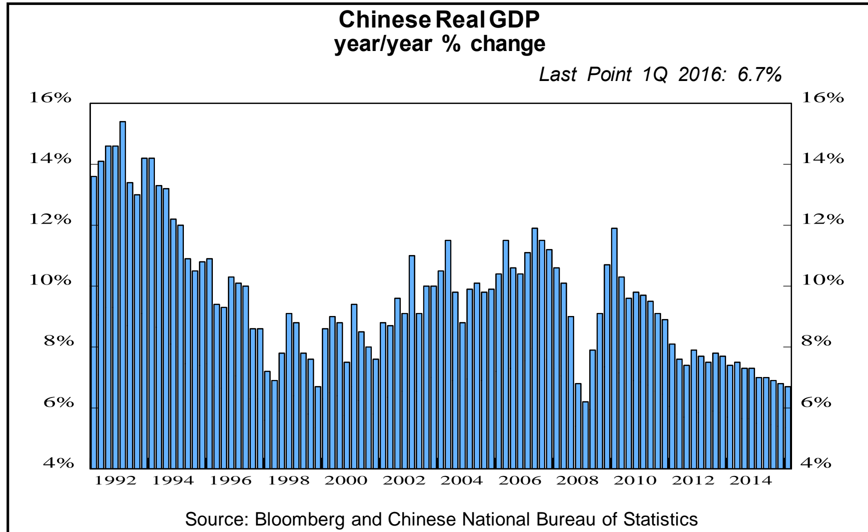
—Slow economic growth in the U.K.
—Curtail growth in the rest of the EU
—Encourage the anti-immigration and protectionist-oriented populism that fueled Brexit
—Mark the end of post-World War II efforts to unite Europe
—Promote contagion that could result in other countries leaving the EU
—Dampen immigration to prosperous developed countries
—Cause the receding tide of globalization to roll out faster
—Further depress worldwide trade and economic growth
—Retard already-weak capital spending

Significant developments around the world that will be initiated or enhanced by Brexit include these 13:

1. Chinese growth will be even lower (*Chart 1*) as her exports (*Chart 2*), the key driver of that economy, are further curtailed by slowing growth in Europe and elsewhere. Chinese officials' ongoing zeal to devalue the yuan to offset export weakness will be enhanced. They will continue to switch back and forth between targeting the currency in dollars and in the basket of their trading partners' currencies (*Chart 3*) to try to camouflage their basic intentions. Sterling only accounts for 4% of the yuan basket index so its recent plunge increased the Chinese currency little, but the strength of the dollar, a quarter of the basket, forced the Chinese to reduce the yuan's value to the lowest level since late 2010 (Chart 3).

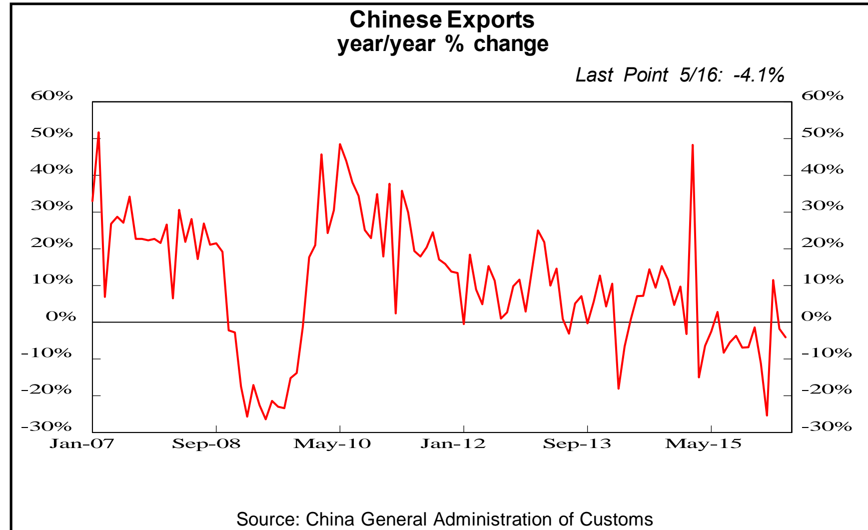
One reason for China's currency machinations is to save face and not let the Chinese currency look like that of

CHART 1



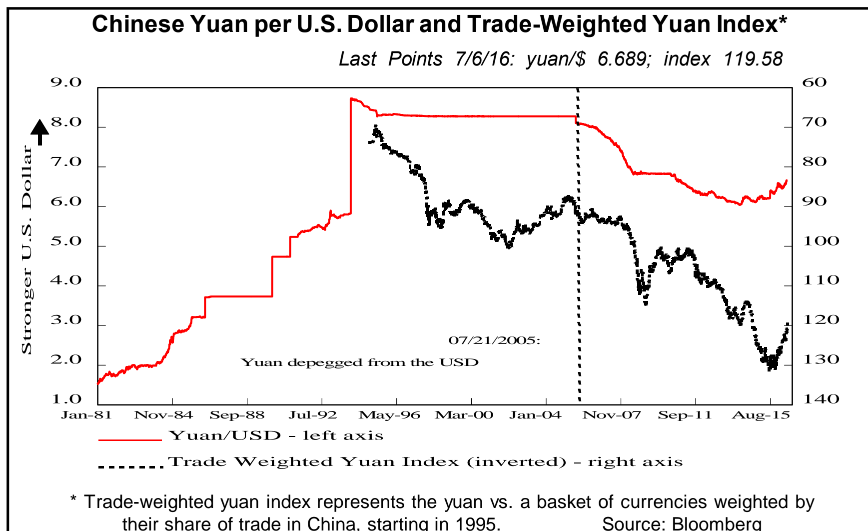
Source: Bloomberg and Chinese National Bureau of Statistics

CHART 2



Source: China General Administration of Customs

CHART 3



* Trade-weighted yuan index represents the yuan vs. a basket of currencies weighted by their share of trade in China, starting in 1995. Source: Bloomberg

one more banana republic after Beijing went to great lengths to promote yuan stability to gain recognition last year as an IMF reserve currency. Another is to avoid enhancing the recent serious capital flight (*Chart 4*). Since China devalued last summer, departing money has already reduced Chinese foreign currency reserves from $4 trillion to $3.2 trillion (*Chart 5*) as the government traded dollars for yuan to accommodate fleeing capital without causing a currency collapse.

A few days before the Brexit vote, Chinese Premier Li told the central bank, which is government-controlled, that the yuan must be kept stable. The central bank has been intervening in currency markets to keep the yuan's fall orderly and to avoid a panicked dumping of the currency.

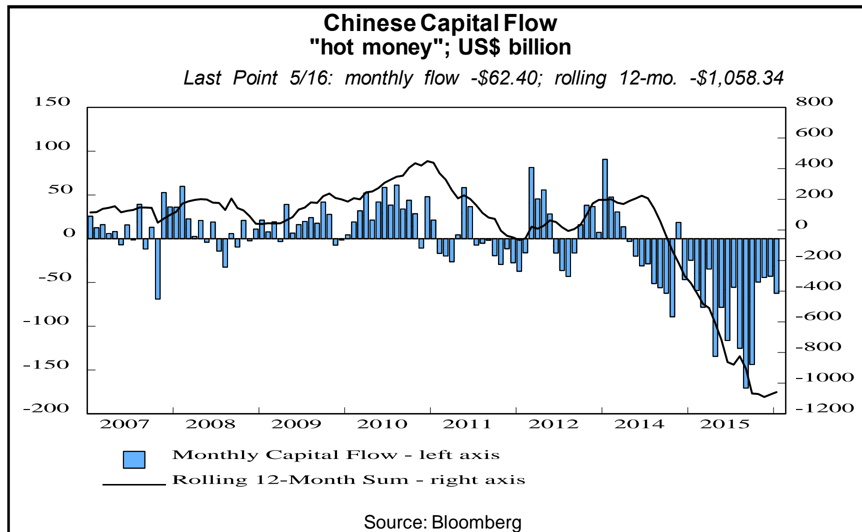
2. Emerging economies beyond China, which all depend for growth on exports that go directly or indirectly to the West, will be further depressed by slower growth in Europe. Export growth from developing economies has already dropped this year to the lowest levels since the financial crisis.

Furthermore, the weakness of their currencies against the dollar (*Chart 6*) makes it more expensive in local currencies to service the dollar-denominated emerging market bonds that have leaped in outstanding amounts since the financial crisis (*Chart 7, page 28*). Also, the many commodities that trade in dollar terms are depressed as the greenback appreciates, reducing the dollar export earnings of commodity producers.

With the collapse in energy prices, oil-exporter Nigeria, a country of 187 million people with 90% of her export revenues from oil, is headed into a recession, according to the central bank's governor. Militant attacks on pipelines and rigs as well as massive theft of oil and rampant corruption have added to Nigeria's woes. In early July, a less-than two-week-old 30-day truce with militants

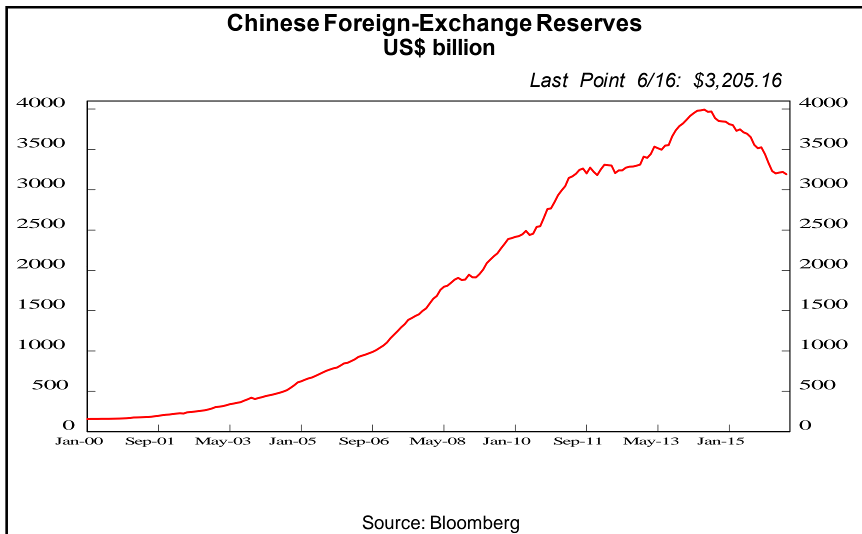
(continued on page 28)

CHART 4



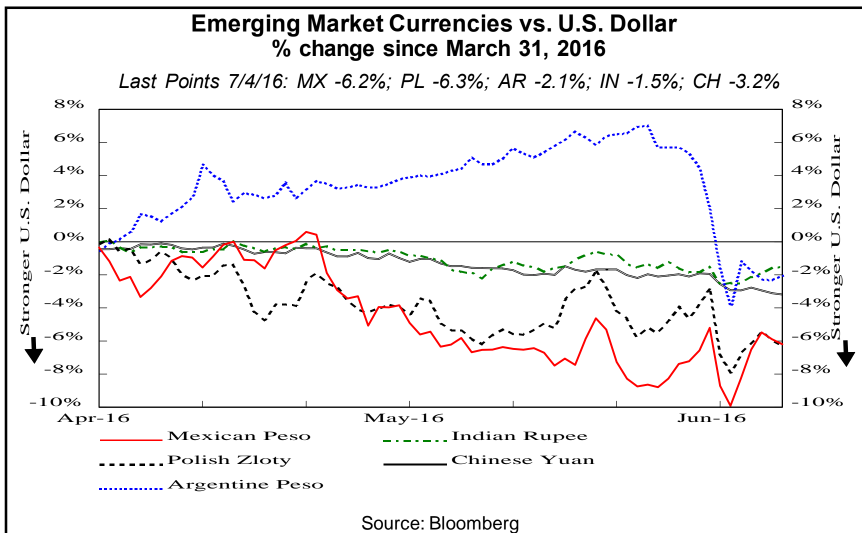
Source: Bloomberg

CHART 5



Source: Bloomberg

CHART 6



Source: Bloomberg

INVESTMENT THEMES

Our Investment Themes section reflects the positions that are in or being considered for our managed portfolios. We may add or delete portfolio positions in the course of the month, but those changes will not be show in *Insight* until the following report.

As explained in "Even The Brits Are 'Mad As Hell'," on page 1, Brexit has reinforced the investment themes we've favored since the beginning of the year. And since the British vote to leave the EU, most of them have been working extremely well.

An exception is the yen, which, like the dollar, has strengthened as a safe-haven currency. So we're dropping the yen short from our list but maintaining the rest of our earlier themes:

1. Short commodities
2. Short crude oil and related securities
3. Long the dollar vs. euro, commodity currencies and developing economy currencies
4. Short emerging-market stocks and bonds
5. Short junk bonds
6. Long 30-year Treasurys
7. Short U.S. stocks

Summing Up

Most markets managed to recover much of the losses they experienced in the wake of the U.K.'s Brexit votes, leaving most U.S. indices—and even the British bourse—in the black for the year as the first half of 2016 ended.

The two days of market declines after the vote to leave the EU were staggering: The Dow Jones Average fell 4.8% on June 24 and June 27, the S&P 500 was off 5.3% and the Nasdaq fell 6.4%. The FTSE index fell 5.6% on the two trading days following the Brexit vote, the Stoxx 600 was off 11% and the CAC in France dropped 10.8%. The day after the vote, the British pound lost 8% of its value and fell to a 31-year low while the euro and yen also fell. Government bond yields across the globe fell, with the 10-year Treasury yield falling to its lowest point since July 2012. Gold prices, meanwhile, rose 5% on June 24.

As we point out in our page 1 article, even normally staid British voters were "mad as hell" at the establishment, echoing what has happened in elections in the U.S., Canada, Europe and even the Philippines.

A week before the Brexit vote, the Federal Reserve's policy committee said that, in light of ongoing slow economic growth and weaker jobs data of late, it would raise short-term interest rates at a slower pace than originally planned: no more than two hikes this year instead of the four originally planned. Fed officials now see the federal funds rate rising to 2.4% by the end of 2018 instead of the 3% level foreseen in March.

"Recent economic indicators have been mixed," said Chair Janet Yellen at a press conference following the Fed's meeting. Noting the recent weakness in jobs data, she said the "labor market appears to have slowed down, and we need to assure ourselves that the underlying momentum in the economy has not diminished." She repeated the caution over rate hikes to congressional committees a week later.

Final figures for first quarter GDP showed the U.S. economy growing 1.1% vs. the 0.8% estimated in late May and twice the 0.5% reported in late April. Exports gained (+2%) as did non-residential fixed investment. Spending on intellectual property, i.e., software, rose 4.4% instead of declining slightly, as first reported. Consumer spending, though, was weaker.

Consumer prices were up 0.2% in May due to higher energy costs and higher rents. Year-over-year CPI rose 1.0%. The core rate was up 0.2% and the 12-month core CPI increased 2.2%. Thanks to higher fuel costs, producer prices rose 0.4% in May vs. a 0.2% increase in April while the 12-month rate was down 0.1%. Core PPI rose 0.3% in May and the 12-month core rate was up 1.2%. Crude oil prices reached up and touched the $50 per barrel mark several times last month for the first time since last July, but never managed to remain above that level as prices pretty much ended the month where they began.

Despite the recent increase in gasoline prices, retail sales data surprised everyone for a second straight month, rising 0.5% in May after a 1.3% increase in April. Auto sales were up 0.5%, gas station sales rose 2.1% thanks to the higher fuel prices, sales at clothing stores advanced 0.8% and online sales and sales at sporting goods stores were both up 1.3%. Declines were seen at building materials/garden stores (-1.8%) and furniture stores (-0.1%).

Nonfarm payrolls rose by a very disappointing 38,000 jobs in May. The unemployment rate dipped to 4.7% as people exited the labor force and the labor participation rate dipped to 62.6%. Hourly wages were up 2.5% from a year earlier.

Housing data was mixed in May, with housing starts dropping 0.3% vs. April. Single-family starts rose 0.3% while groundbreakings for multi-family units fell 1.2%. Building permit issuance increased 0.7%. New home sales fell 6% in May from April, whose gain was revised downward. The median price of $290,400 was 1.0% higher than a year earlier. Existing home sales rose 1.8% in May vs. April to their highest level since February 2007. The median price of $239,700 was 4.7% higher than a year earlier.

Led yet again by gains in Portland, Seattle and Denver, the S&P/Case-Shiller index of home values in 20 cities rose 5.4% in April from a year earlier. The National Association of Home Builders' confidence index rose to 60 in June from the 58 level it had stood at for four months.

The Conference Board's consumer confidence index jumped to 98 in June from 92.4 in May. The University of Michigan's consumer sentiment index fell to 93.5 in June from 94.7 in May.

Fred T. Rossi
Editor

THE NUMBERS

	June 2016 % Change*	Year-to-Date % Change
Dow Jones Industrials	+0.8%	+2.9%
S&P 500	+0.0%	+2.7%
Nasdaq Composite	-2.1%	-3.3%
Nikkei Average	-9.6%	-18.2%
STOXX Europe 600	-5.2%	-10.4%
Shanghai Composite	+0.4%	-17.2%
FTSE 100	+4.4%	+4.2%
	6/30/16	**5/31/16**
10-yr. Treasury note	1.48%	1.85%
$=¥	103.26	110.71
€=$	1.11	1.11
West Texas Inter.	$48.29	$48.93

through June 30

Effects Of Brexit

(continued from page 25)

ended with more pipeline sabotage. The Niger Delta Avengers, the most prominent group, wants better oil revenue distribution.

These disruptions have left the government without enough revenue to replenish foreign-currency reserves, so rather than devalue the naira, the central bank rationed dollars while spending half its $43 billion in foreign currency reserves defending the currency. That made many businesses unable to import parts and equipment and pay foreign creditors, adding to recessionary pressures.

So the naira was floated on June 15 and the black market exchange rate promptly leaped to 370 naira per dollar compared to the earlier official pegged rate of 199. After Brexit, the naira plunged another 40% and was supported at 280 per dollar (*Chart 8*). The Nigerian stock market has actually rallied recently but because local investors believe inflation will wipe out the value of cash. This is a typical response in past instances of hyperinflation.

3. The dollar is strengthening not only against emerging market currencies (Chart 6) but also vs. developed economy currencies (*Chart 9*). The only significant exception is the yen, which, like the greenback, is a safe haven currency. Furthermore, as we've discussed in many past *Insight*s, almost every other country wants a weaker currency against the dollar to spur its exports and retard imports in order to offset a weak domestic economy.

The ECB is deliberately trying to tank the euro and the Bank of Japan is attempting likewise with the yen. Commodity currencies such as the Canadian, Australian and New Zealand as well as the Mexican peso tend to drop along with commodity prices, but their central banks are also rooting for weaker

CHART 7

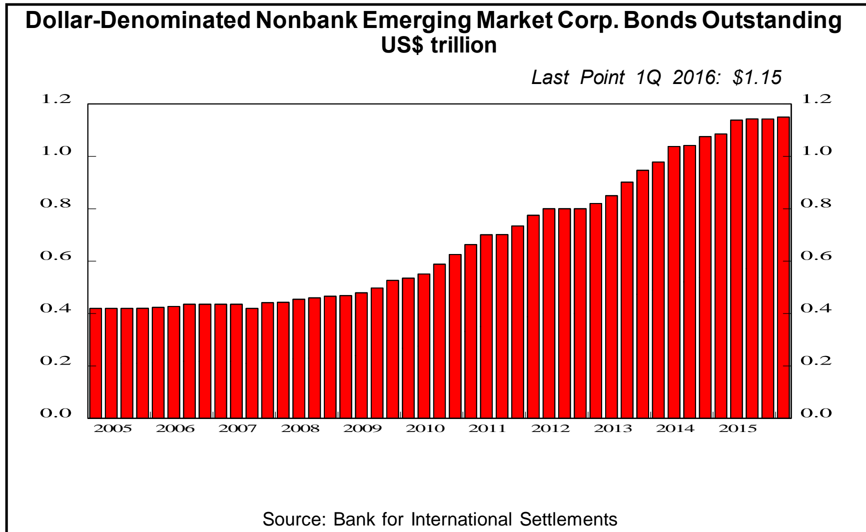


CHART 8

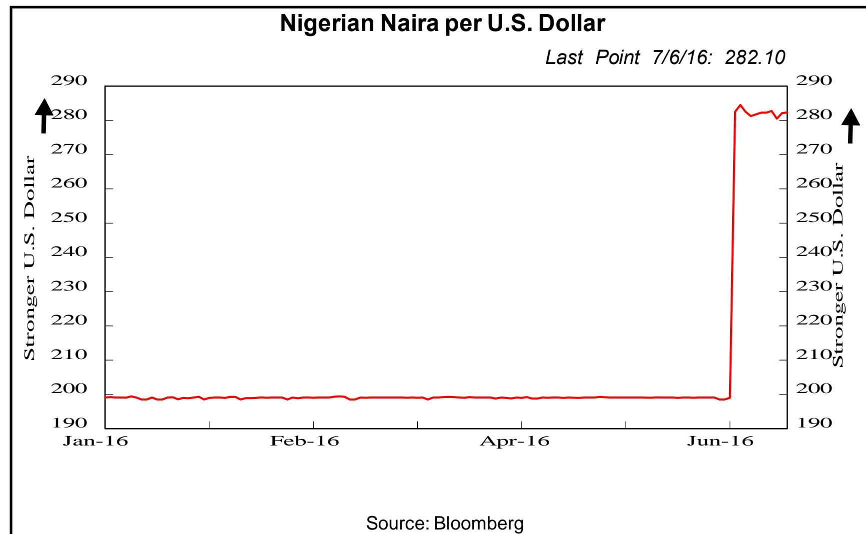
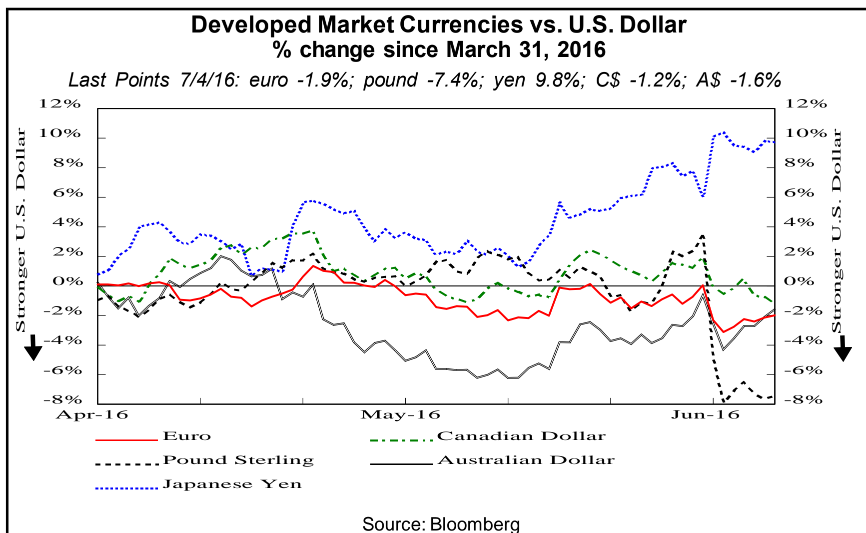


CHART 9



currencies. Then there are other developing economies, first and foremost China, that don't want to be left out and are pushing for declining currencies.

As the world's currency standard and anchor, the dollar can't be devalued by government action. It's also one of the few safe havens in a sea of global trouble, as noted earlier.

Near-universal devaluations against the buck do retard U.S. exports and encourage imports, and are also detrimental to dollar values of foreign earnings and exports of U.S.-based companies. Still, the effects on the U.S. economy are limited since it is largely domestic. Note that as a share of GDP, U.S. exports are just 13.5% compared to 31.6% in Canada and 45.6% in Germany (*Chart 10*).

CHART 10

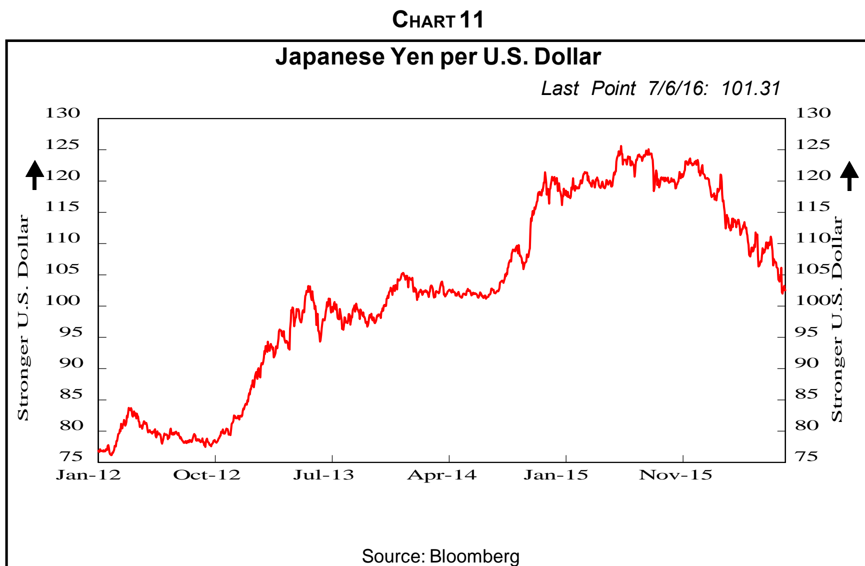
Exports of Goods and Services as a % of GDP: 2014

Country	% of GDP
Brazil	11.5%
U.S.	13.5%
Japan	16.2%
China	22.6%
India	23.6%
Turkey	27.7%
U.K.	28.4%
Russia	28.6%
France	28.7%
Italy	29.4%
Canada	31.6%
Mexico	32.7%
EU	40.1%
Sweden	44.6%
Germany	45.6%
Thailand	75.0%

Source: Bloomberg

4. The yen, after the Brexit vote, rallied briefly to 99 per dollar, back to where it started when "Abenomics" was getting under way in 2013 (*Chart 11*). That plan by Prime Minister Abe, elected in late 2012, was aimed at counteracting the slow economic growth and deflation that have plagued Japan for two decades.

CHART 11

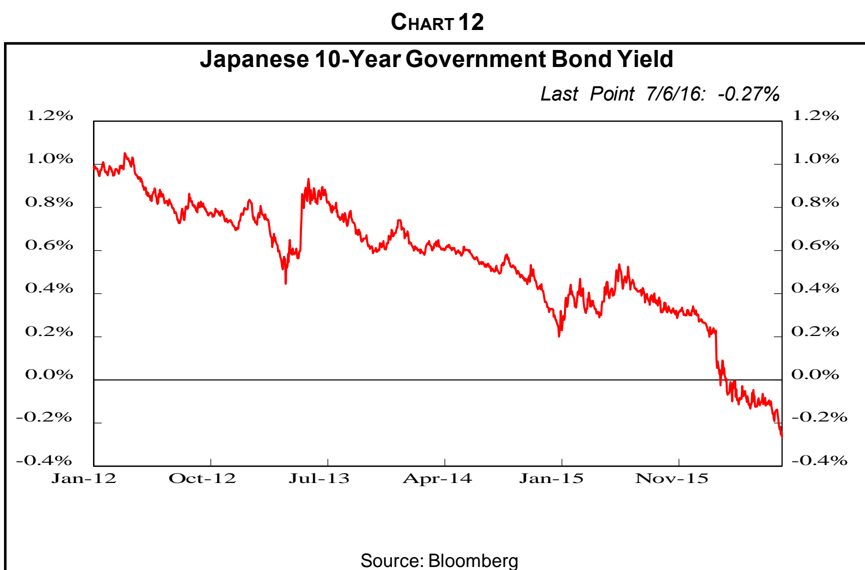


Source: Bloomberg

Easy monetary policy has succeeded in reducing Japanese government bond interest rates to negative territory (*Chart 12*), but failed to stimulate borrowing and economic growth (*Chart 13, page 30*) and certainly hasn't depressed the yen to promote exports and restrain imports (Chart 11). Similarly, Abe's second and third arrows, fiscal stimulus and structural reform, have been ineffective.

Even more negative interest rates may well prove more disruptive than beneficial and the likely further slowing in global economic growth will harm Japanese exports (*Chart 14, page 30*). Furthermore, Japan's population is already declining (*Chart 15, page 30*) as a result of the lowest fertility rate among G-7 countries (Chart 45, page 20) and no legal immigration. Add in the longest life expectancy among G-7 lands and the growing number of retirees needed to be supported by those still working (Chart 46, page 20) and Japan's growth outlook is indeed bleak.

CHART 12



Source: Bloomberg

Nevertheless, the Abe government is making it easier for foreign skilled workers to obtain permanent residency cards. Still, the program of work permits is confined to highly-skilled foreigners who must live in Japan for at least five years before applying for permanent

residency. Since the program began in 2012, only 4,347 people have taken advantage of it.

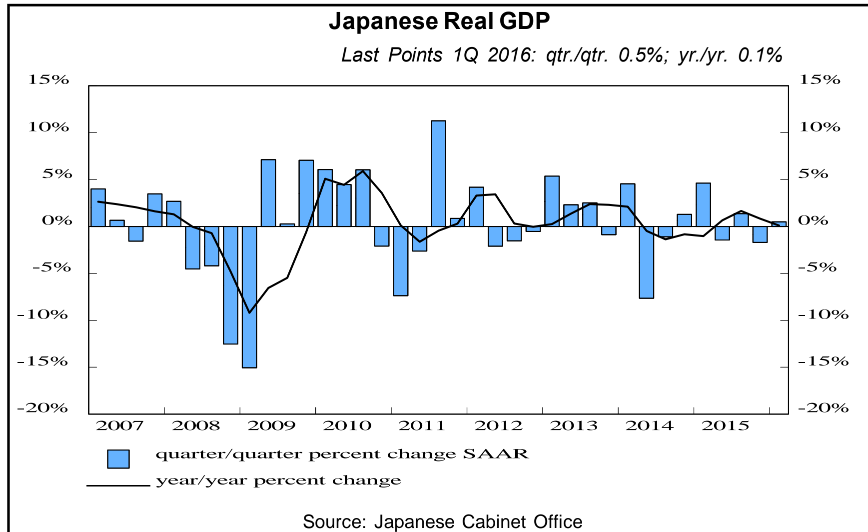
5. Commodities, which have been falling on balance since their 2007 peak, will probably continue to drop as global demand slows. As discussed in numerous past *Insight*s, many commodity producers in the early 2000s were dazzled by China's huge purchases of commodities and reasoned that the bonanza would last forever. So they hyped production, not realizing that China's rapid growth (Chart 1) was principally due to globalization, with manufacturing activity moving from Europe and North America to China and other low-cost locales, and not to home-grown stimuli.

That reality came home, however, with the Great Recession, which slowed commodity demand just as many iron ore and copper mines and other commodity investments that took five to 10 years to come to fruition did so. Hence the nosedive in commodity prices.

The strengthening dollar (Charts 6 and 9) also is depressing commodity demand and prices since many commodities are priced in greenbacks. As the buck rises, the costs and therefore the demand for commodities in weakening currency countries falls, although commodity exporters gain as dollar foreign-exchange earnings translate into more of their dropping currencies.

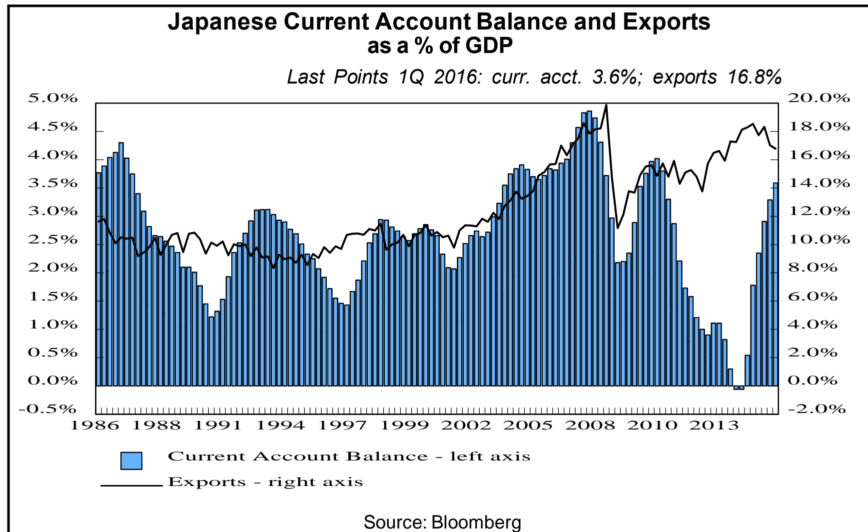
6. Crude oil. The June 23 "Brexit" vote enhances our forecast of early last year that crude oil prices will drop to $10 to $20 per barrel. Back then, the price of West Texas Intermediate stood at $52 per barrel and oil bulls thought such a further big decline was impossible (*Chart 16, opposite page*). But prices did fall further, all the way to a low of $26 in February. Since then, crude oil prices have rallied and have spent much of the past several weeks flirting with the $50 per barrel mark, a level not seen since last summer's brief price rally, before falling more recently.

CHART 13



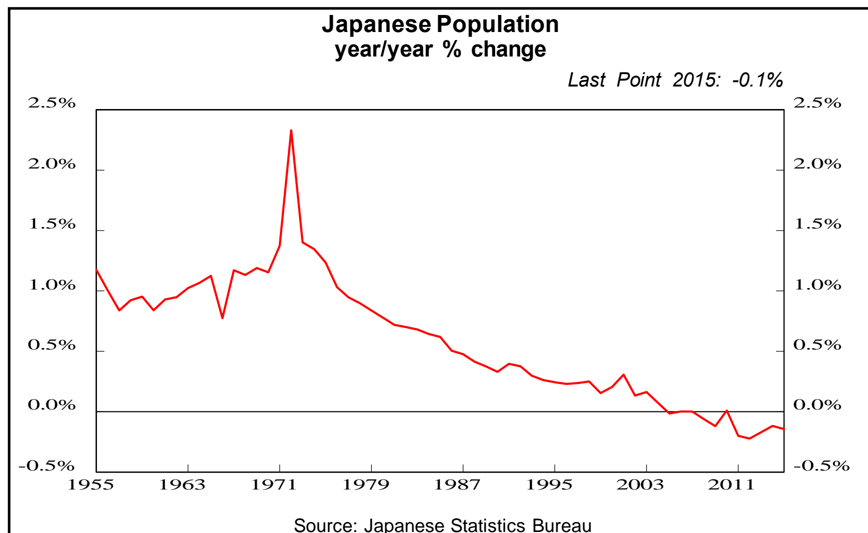
Source: Japanese Cabinet Office

CHART 14



Source: Bloomberg

CHART 15



Source: Japanese Statistics Bureau

Still, we're sticking to our earlier call. The earlier rise in oil prices has been due to factors having little to do with the fundamentals that led to the price collapse in the first place. The wildfires in the oil-sands region in Canada and output cuts in Nigeria and Venezuela due to political unrest were the primary causes of the increase in crude prices since February as well as hopes that American fracked wells would soon run dry.

But the world continues to be awash in crude, and American frackers have replaced OPEC as the world's swing producers. The once-feared oil cartel is pretty much finished as an effective cartel. Even OPEC's leader, Saudi Arabia, is facing up to this reality by quashing recent attempts to freeze output and by borrowing from banks and making plans to sell a stake in its Aramco oil company in an attempt to bring in much-needed revenue to the Kingdom as it braces for lower prices.

The Saudis and their Persian Gulf allies continue to play their desperate game of chicken with other major oil producers. Cartels exist to keep prices above equilibrium, which encourages cheating as cartel members exceed their allotted output and other producers take advantage of inflated prices. So the role of the cartel leader, in this case the Saudis, is to cut their own output to accommodate the cheaters in order to keep prices from falling.

CHART 16

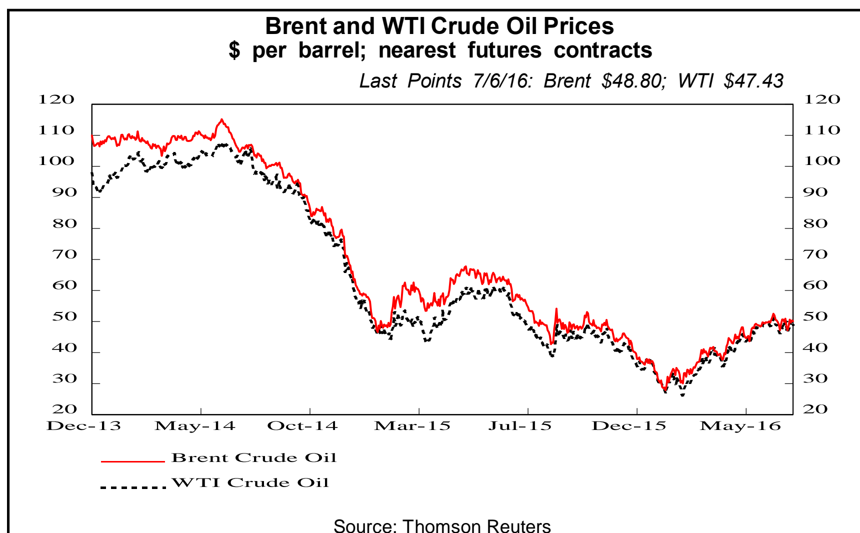
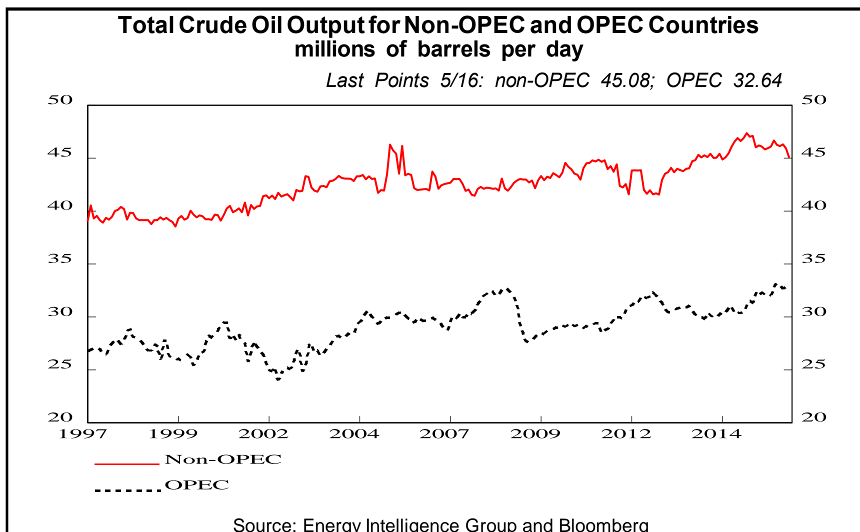


CHART 17



But the Saudis have seen their past cutbacks result in market share losses as other OPEC and non-OPEC producers increase their output. OPEC output in the last decade was essentially flat while all the growth has been enjoyed by others (*Chart 17*) such as Russia, American frackers and Canadian oil sands producers. Indeed, OPEC has abandoned restraints, as it hyped output from 30 million barrels a day in November 2014 when it refused to cut output to more than 33 million barrels a day, as shown in Chart 17.

So the Saudis and the other Persian Gulf producers with sizable financial resources embarked on a game of chicken with other OPEC members, with Russia and American frackers, figuring they could stand lower prices longer than their competitors.

The Chicken-Out Price

The price at which major producers chicken out and slash production isn't determined by the prices needed to balance oil producer budgets, which are as high as $208 per barrel in Libya and $96 per barrel in Saudi Arabia and down to $52 per barrel in Kuwait (*Chart 18, page 32*). Nor is it the "full cycle" or average cost of production that includes drilling costs, overhead, pipelines, etc., which now runs $50 per barrel for some producers.

In a price war, the chicken-out point is the price that equals the marginal cost of producing oil from an established well. Once fracking operations are set up and staffed, leases paid for, drilling is completed and pipelines laid, the marginal cost of shale oil for efficient producers in Texas' Permian Basin is about $10 to $20 per barrel and even lower in the Persian Gulf. In Kazakhstan's huge Tengiz oil field, production costs have averaged $6.50 per barrel over the

past five years. Chevron, Exxon and other partners just committed $37 billion to expanding production there. With the collapse in oil prices (Chart 16), drilling costs have plunged as well.

Furthermore, fracking costs continue to fall as productivity leaps. The number of drilling rigs that are working in the U.S. is beginning to rise after a huge drop (*Chart 19*). But the rigs taken off line are mostly the old vertical drillers that drill only one hole per platform while the horizontal rigs—which drill 20 or 30 wells per platform like the spokes of a wheel—increasingly dominate. So output per working rig is accelerating.

Also, U.S. shale producers are beginning to produce the huge pool of drilled but unfracked wells. That increases output without sizable additional spending.

Iran, freed of Western sanctions, plans to double output to 6 million barrels a day in 2020, which would make it the second-largest OPEC producer behind Saudi Arabia. Russia continues to pump support its recessionary economy as the collapse in oil prices devastated government revenues and export earnings of that energy-dominated economy. War-torn Libya is also ramping up production as best it can.

At the same time, global economic growth, and therefore demand for oil, is weak. China, that giant consumer of oil and other commodities, is shifting from manufacturing and infrastructure spending to consumption outlays and services. Energy conservation measures in the West are limiting oil demand. And rapid technological advances in fracking, horizontal drilling, deep-water and Arctic drilling, etc. are mushrooming non-OPEC supplies at low and declining costs. Non-OPEC output is estimated to rise from 58.1 million barrels per day in 2015 to 58.6 million this year.

Earlier, the International Energy Agency predicted that even if U.S. frackers cut production 600,000 barrels a day this year and a further 200,000 barrels per day in 2017, and the now-dead freeze on output had succeeded, excess supply still will run at 1.5 million barrels a day until 2017. That's a continuation of the recent 1 to 2 million barrels a day excess.

CHART 18

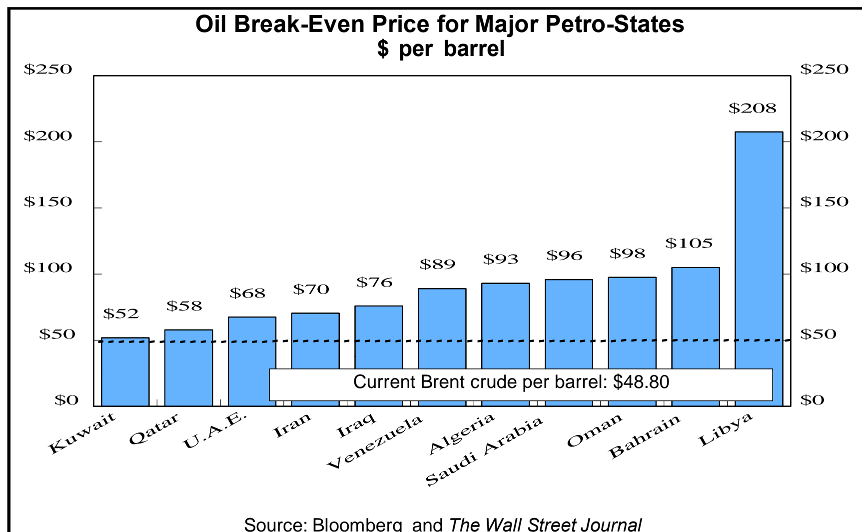
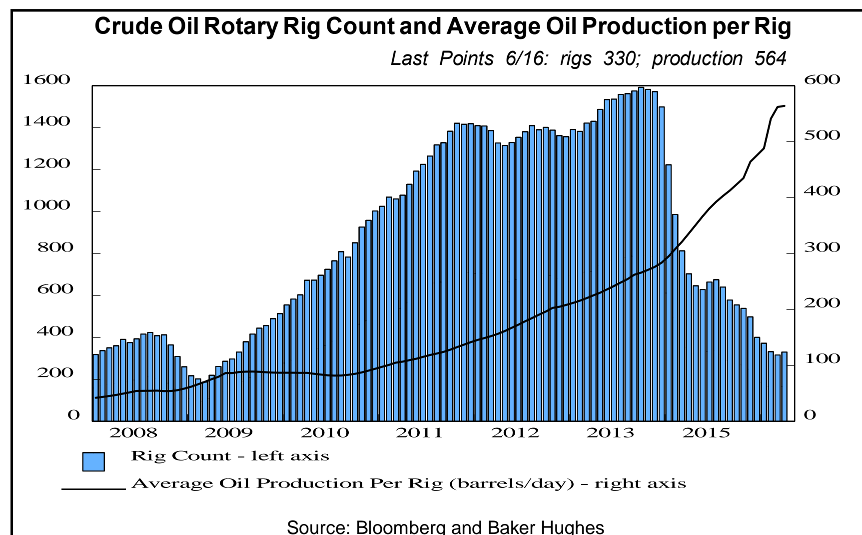


CHART 19



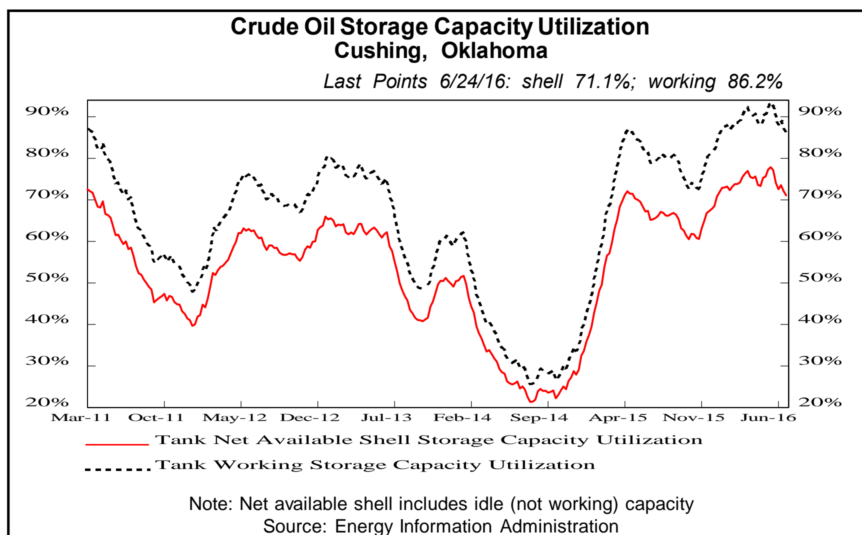
Inventories

And don't forget the crucial role of inventories in determining future oil prices. After all, with global output exceeding demand by one-to-two million barrels per day and that surplus likely to persist, the extra oil must go into storage. And when the storage facilities are full, the surplus will be dumped on the market to the detriment of prices. Cushing, Okla., the delivery point for determining the price of West Texas Intermediate, is nearing its storage capacity (*Chart 20, opposite page*). The same is true for the Amsterdam-Rotterdam-Antwerp region, the oil gateway to the Continent. China is running out of capacity for her commercial and strategic reserves. Globally, crude oil inventories have jumped to record levels with a leap of 370 million barrels since January 2014.

Surplus oil is also being stored in ships—"floating storage"—

even though it costs $1.13 per barrel per month compared to 40 cents in Cushing and 25 cents per month in underground salt caverns, like those used for the U.S. Strategic Petroleum Reserve. Furthermore, since low oil prices have made shipping it by train unprofitable, rail tank cars—"rolling storage"—are being utilized. Their cost is about 50 cents per barrel per month.

CHART 20



Note: Net available shell includes idle (not working) capacity
Source: Energy Information Administration

The late winter-spring rally pushed oil prices from their February low of $26 per barrel to the recent high of about $50, a jump of 90%. But that jump followed the 76% drop from the June 2014 top of $107 per barrel. Sounds like a complete recovery? Not so since less than half of the swoon has been retraced so far. Consequently, it still feels horrible to those who invested in oil when it was over $100 per barrel.

Another Oil Price Drop

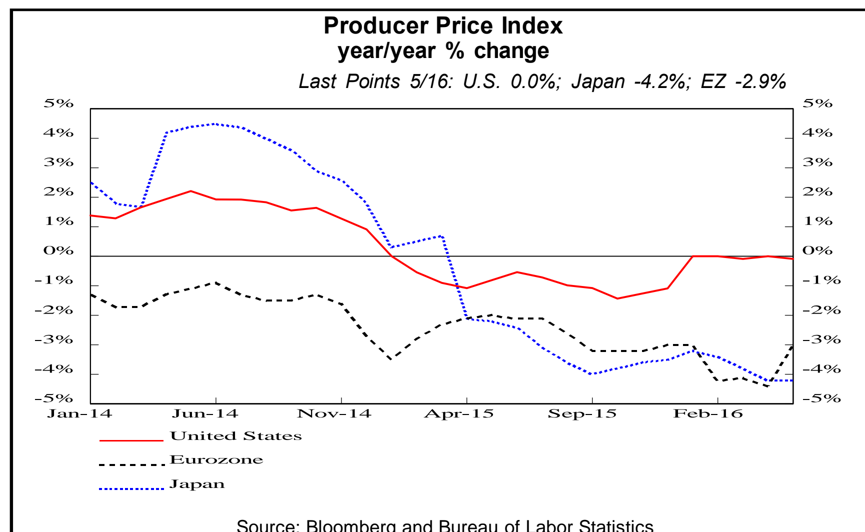
The oil price recovery, as noted earlier, also was driven by hopes and external and temporary forces, not by any fundamental change in the excess of petroleum supply over demand, the primary cause of the price collapse. So another big leg down in oil prices seems likely, triggered by several probable developments that will reinforce each other.

First is the filling of oil storage facilities discussed earlier that will then force ongoing excess production to be dumped on the market, thereby depressing prices. Second, pressure from lenders on financially-weak energy borrowers that will force them to produce as much oil and gas as possible to gain the revenue to service their debts. Third, the likely continuing rise in the safe-haven dollar against the currencies of weak developing economies will hype their cost of imported oil—which is universally priced in U.S. dollars—and thereby curb demand. And finally, the likely slowing of global economic growth and oil demand in reaction to Brexit reinforces our forecast.

An oil price drop to the $10 to $20 per barrel range would be a shock reminiscent of the dot com collapse in the late 1990s that precipitated the 2001 recession, and the subprime mortgage debacle in the mid-2000s that touched off the 2007-2009 Great Recession, the deepest since the 1930s. Of course, prices would not stay in the $10 to $20 barrel range indefinitely. In the aftermath of a global recession and after excess energy production was squeezed out—painfully, no doubt—price rises would be expected. In the longer run, petroleum prices would likely increase to the average cost of new production—but with the strong possibility of chronic deflation being initiated by a worldwide downturn and the depressing effects on labor and other costs, the equilibrium prices of oil might be surprisingly low, in the $40 to $50 per barrel range—well below the prices assumed in any earlier energy investments.

7. Chronic deflation is increasingly likely as commodity prices, including oil, fall in response to oversupply and slowing global growth. It's already present at the producer level in Japan, the eurozone and the U.S. (*Chart 21*) as well as China. At the consumer level, goods prices continue to fall, but overall indices are supported by services prices (*Chart 22, page 34*).

CHART 21



Source: Bloomberg and Bureau of Labor Statistics

Still, the conditions that create weak goods prices spill over to services. Laid-off oil field workers don't spend as much in bars and restaurants, depressing demand for those services and their prices. Also, services inflation is overstated for a number of reasons, importantly the use of "owner's equivalent rent," which constituted about a quarter of the personal consumption expenditures deflator (Chart 22) and the CPI.

Rental rates have been soaring as vacancies fall (*Chart 23*), due to robust demand from the many new households that don't have the credit scores, job security and downpayments to buy their abodes. But the resulting gap between rental and mortgage costs (*Chart 24*) as well as impending overproduction of apartments (*Chart 25, opposite page*) is putting downward pressure on rents.

A moderation in rents will have a substantial impact on inflation. Owners' equivalent rent, a measure of rent inflation, assumes that homeowners rent their abodes from themselves at current market rates. It constitutes 24% of the CPI. With rental costs leaping, owners' equivalent rent jumped by a year-over-year rate of 3.1% in April (*Chart 26, opposite page*). But do many homeowners know or care about the rental value of their homes? Does that affect their spending and saving behavior?

Excluding this fictitious number, the CPI inflation rate for April drops to 0.4% from 1.1%. As a major component of the total consumer price index, a decline in owners' equivalent rent could pave the way for deflation at the consumer level. Futures markets now forecast inflation of 1.4% five years from now, down from a 3% forecast in 2012..

8. Major central banks in the climate of already-slowing global growth and now Brexit will induce even more aggressive monetary ease. The already-liberal stances drove their reference rates to essentially zero earlier and now negative in Japan and Europe (*Chart 27, opposite page*) while

CHART 22

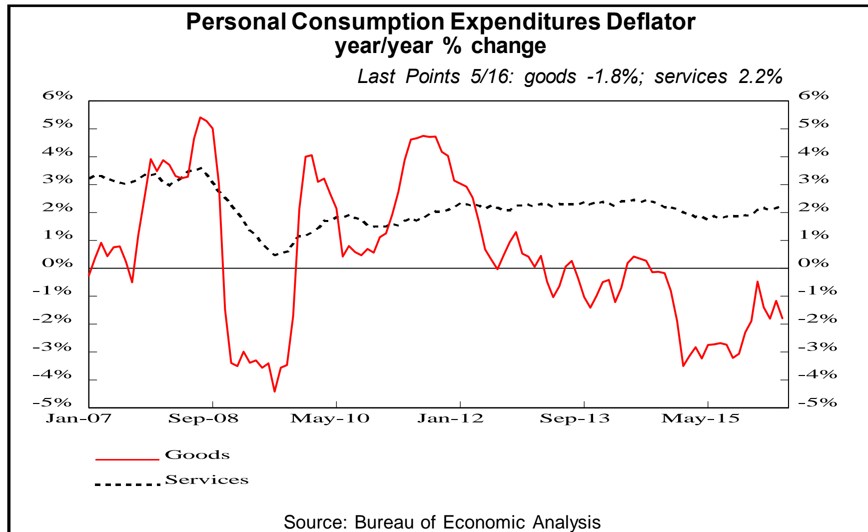


CHART 23

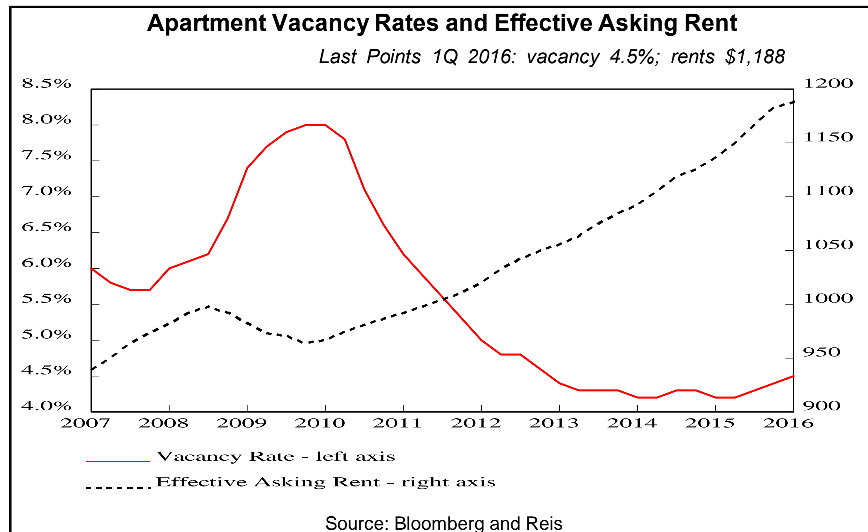
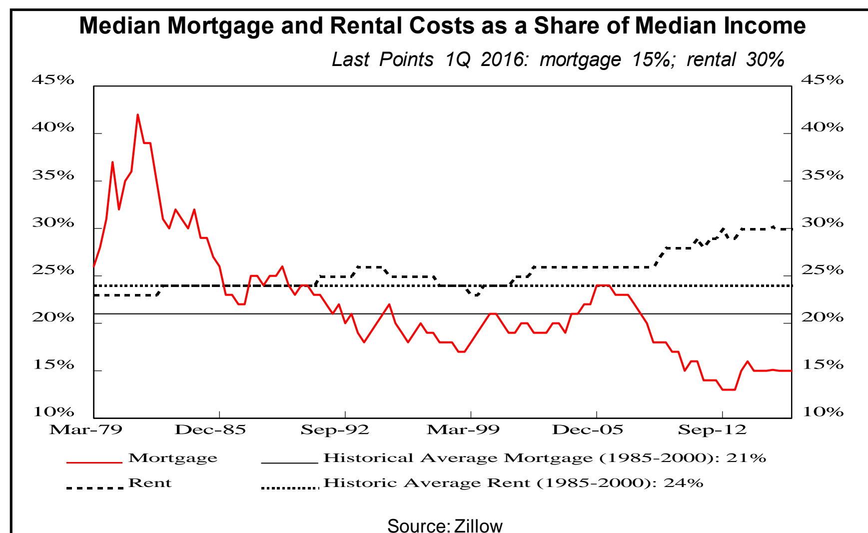


CHART 24



quantitative easing exploded their assets (*Chart 28, page 36*). As noted in our page 1 report, the Bank of England just moved to increase the funds available for lending by U.K. banks by $200 billion. Earlier, on June 30, BOE chief Mark Carney said that the central bank would need to cut rates "over the summer" and hinted at a revival of QE that the BOE ended in July 2012 (Chart 28).

We continue to believe that monetary policies are impotent. Zero interest rates did little to spur lending and borrowing, and negative rates appear to be creating more confusion than help. Quantitative easing also has not stimulated purchases of goods and services and, therefore, economic growth.

As discussed repeatedly in past *Insights*, when central banks buy securities in the open market to execute their QE programs, the sellers largely reinvested the proceeds in equities. This propelled stocks. But financial institutions that benefit don't end up buying more goods and services, directly or indirectly.

As for individual stockholders, equities are primarily owned by households with high net worths and incomes who don't increase their spending on goods and services appreciably as their assets rise. Someone with three vehicles already in his driveway probably doesn't want or have room for a fourth. The top 10% in families by income had 47 times as much value in equities as the lowest 20% in 2013, the latest Federal Reserve data.

Furthermore, studies show that the effects of rising household net worth in consumer spending are falling over time. This isn't surprising since household income continues to shift to upper-income people (Chart 22, page 9). Also, U.S. households have shifted from a two-decade-long borrowing and spending binge to a saving spree (*Chart 29, page 36*), so they want to hang on to their net worth increases. In past *Insights*, we've discussed a number of reasons for this shift, first and foremost the lack of

CHART 25

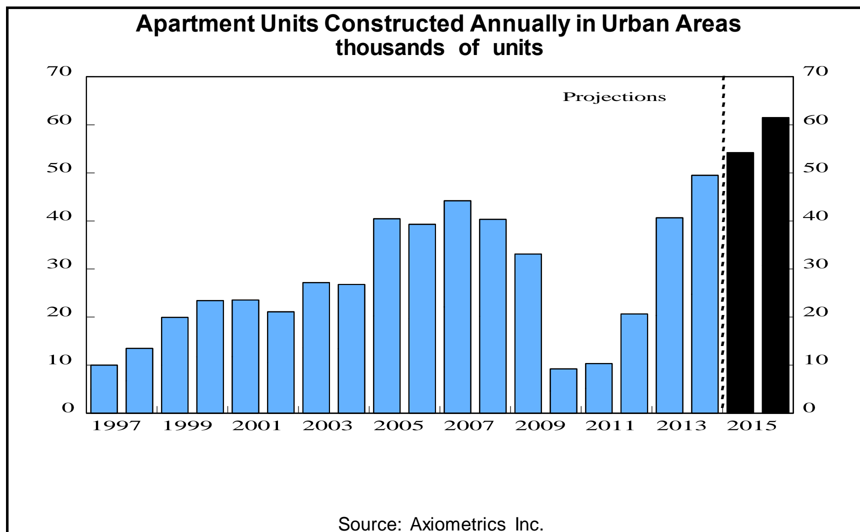


CHART 26

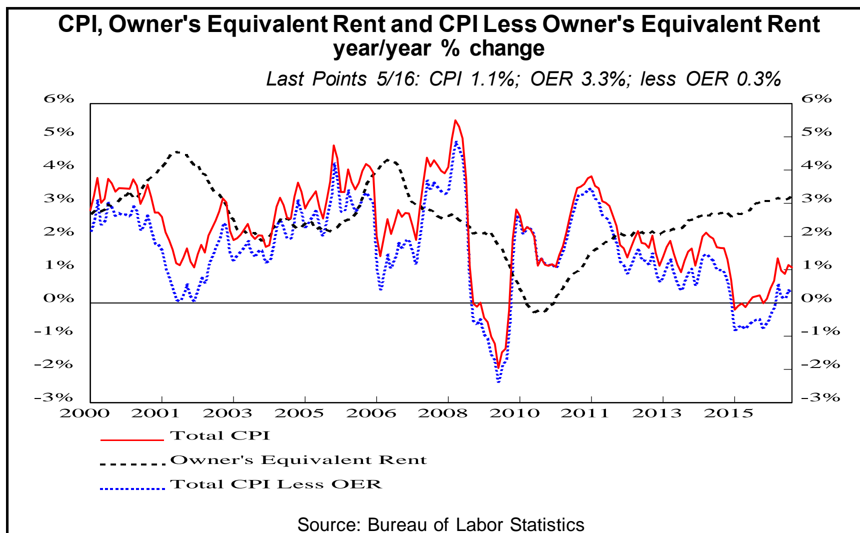
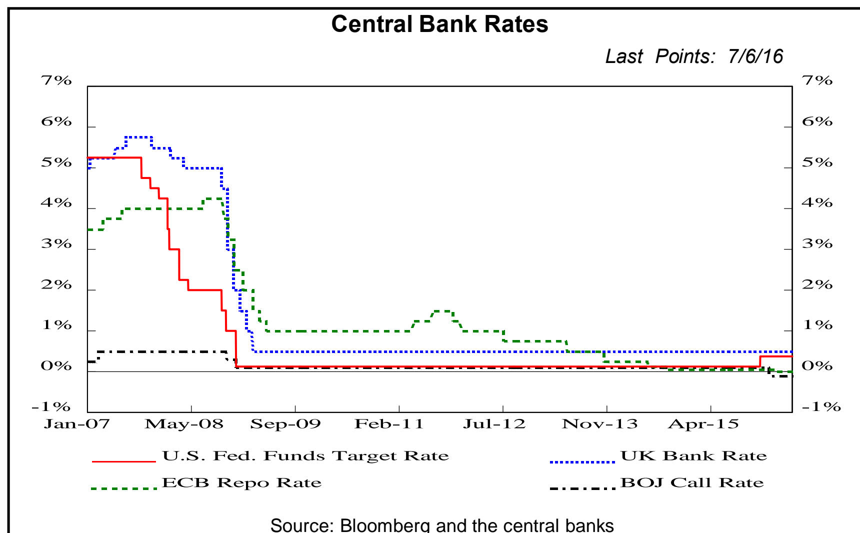


CHART 27



earlier saving by the now-retiring postwar babies. Household saving is also being encouraged by tough economic times for many with real income even lower than a decade ago (Chart 25, page 10).

At the same time, households with squeezed incomes have less money to save even though economic uncertainty gives them the desire to save more. So which wins out, more saving or less? In past recessions, the same downward pressure on incomes that many have suffered in recent years was overcome by the desire to save for uncertain futures. So the household saving rate consistently rose.

ECB Rates "Lower"

ECB President Mario Draghi in April—before Brexit—said that interest rates will remain at "present or lower levels for an extended period," leaving open the possibility of further cuts. He also looked for deflation in coming months. In contrast, the Fed has consistently overestimated inflation, economic growth (*Chart 30*) and, therefore, interest rate increases. Even in late May, Chairwoman Janet Yellen suggested that the Fed would raise rates again within months, pointing to rising energy prices and a weaker dollar. At that point, futures markets indicated a 61% probability of a rate hike in June or July.

Nevertheless, the Fed at its late April policy meeting finally—finally—cranked its GDP forecast down to the 2% level (Chart 30) that has reigned since this recovery started in mid-2009 (Chart 9, page 4). And Yellen told Congress right before the Brexit vote that a Leave decision would "usher in a period of uncertainty" and fuel volatility in world markets "that would negatively affect financial conditions and the U.S. economy."

With Brexit a reality, it's now highly unlikely that the Fed's federal funds rate will be raised any time soon (*Chart 31, opposite page*). We're waiting for the central bank to once again admit that it was overly optimistic.

Chart 28

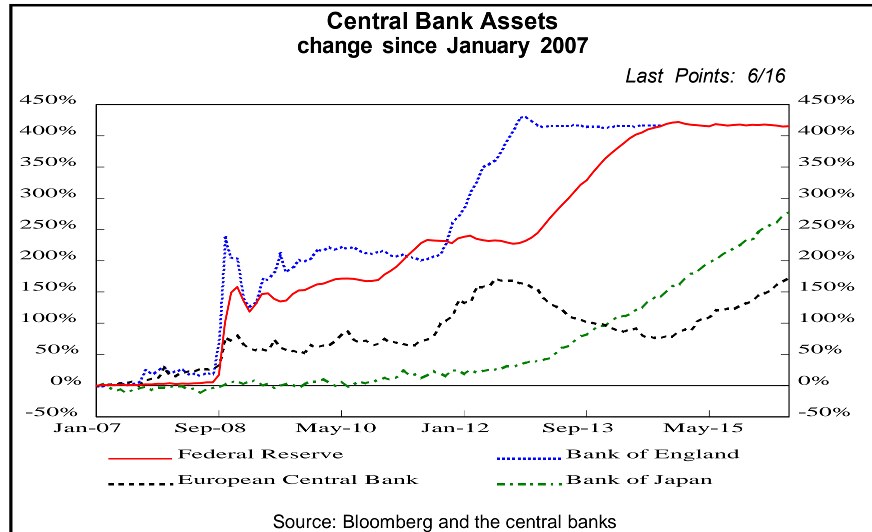


Chart 29

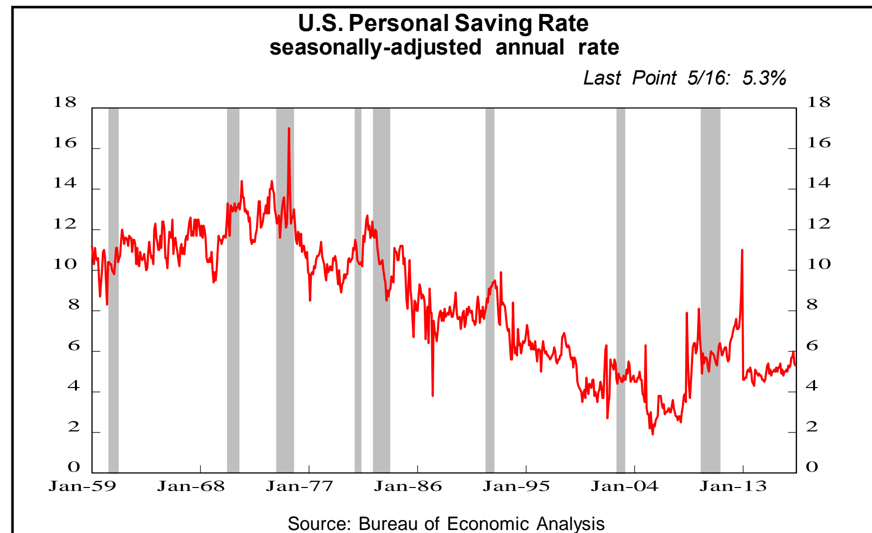
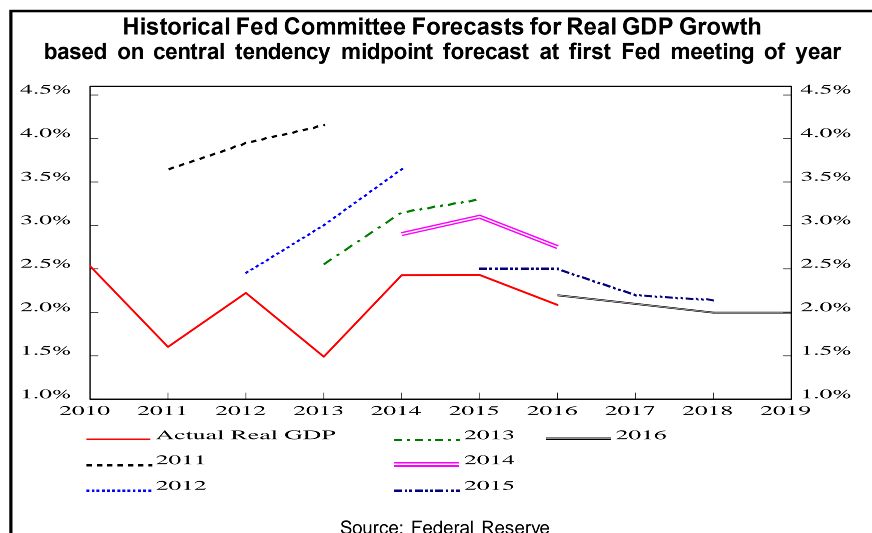


Chart 30



Crying "Wolf!"

Earlier this year, we said that the Fed only raised its reference rate in December by 0.25% because it has cried "Wolf!" so often and so loudly about doing so that if it did not act, its remaining credibility would disappear. Further, we wrote in our January *Insight*: "The Fed in December raised it policy overnight rate by 0.25%, but no other major central bank has done so, with the Bank of Japan and European Central Bank taking the opposite stance with massive quantitative easing programs. In the likely atmosphere of slow global economic growth in coming years and deflation, we expect monetary policies to remain easy. Since the 2007-2009 financial crisis, the central banks of Sweden, Israel, Canada and South Korea have all raised rates and then were forced to cut them. *The Fed may be forced to join them.* (Emphasis added.)

"Along with private forecasters, the Fed has consistently overestimated inflation for five years and remains mystified by its lack of return despite the drop in the headline unemployment rate from 10% in the depths of the Great Recession to 5%. The policymakers keep saying the labor markets are strengthening to the point that rapid wage hikes are just around the corner and will rekindle overall inflation. In our judgment, they don't understand the profound effects of globalization in depressing wages in developed countries or the influence of ongoing deleveraging in keeping global economic growth slow."

Chart 31

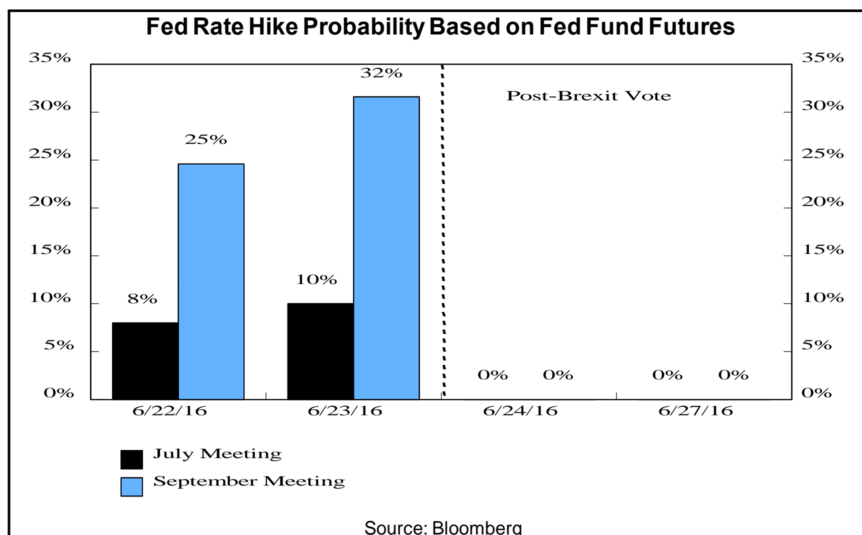
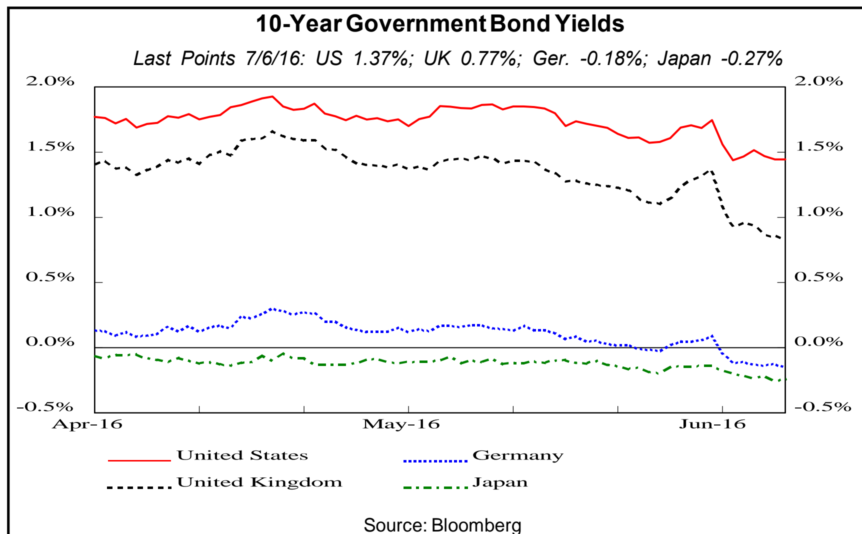


Chart 32



9. Sovereign bonds of major countries have been rallying this year as yields fell (*Chart 32*) as investors have stampeded into safe corrals. Even U.K. government bonds—called "gilts" because back when paper bonds existed, they had gold edges—have leaped in price despite the nosedive in sterling (Chart 41, page 18) and the downgrade in U.K. debt by Standard & Poor's and Fitch. In early July, 10-year gilts fell to 0.83%, their lowest level in modern history, and the 2-year obligation went minus in late June—to -0.04%—for the first time ever.

A month earlier, the U.K. Treasury predicted the exact opposite, stating that "the return that investors would demand for holding longer-term U.K. government debt—or the term premium—would rise" if Britain left the EU. At that time, 10-year gilts yielded 1.50%. Before the Brexit vote, Bank of England Governor Carney warned that rate cuts weren't a given if Britain left. Then on June 30, he said it was his personal view that the central bank would cut rates "over the summer," as noted earlier.

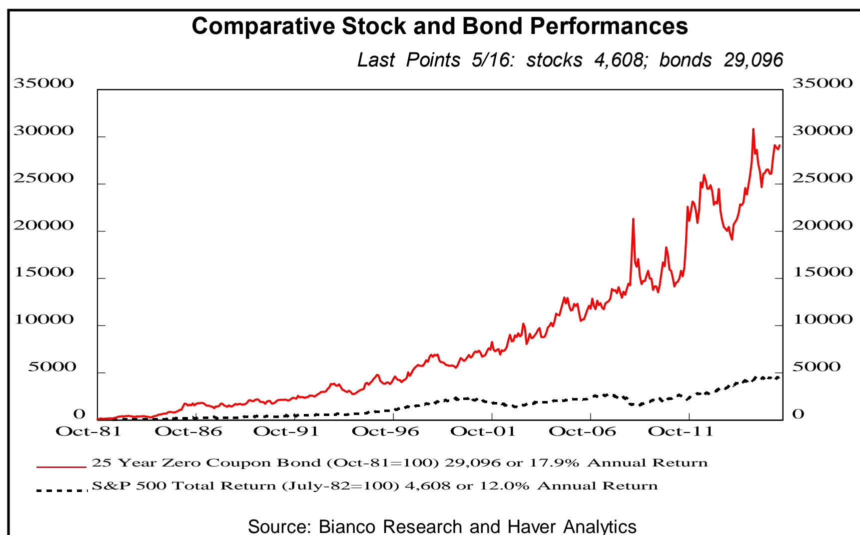
Treasurys

As for Treasurys, we believe that what we dubbed "the bond rally of a lifetime" 35 years ago in 1981 when 30-year Treasurys yielded 15.2% is still intact. This rally has been tremendous, as shown in *Chart 33 (page 38)*, and we happily participated in it as forecasters, money managers and personal investors. Chart 33 uses 25-year zero-coupon bonds because of data availability but the returns on 30-year zeros were even greater.

Even still, $100 invested in that 25-year zero-coupon Treasury in October 1981 at the height in yield and low in

price and rolled over each year to maintain its maturity or duration was worth $29,096 in May of this year, for a 17.9% annual gain. In contrast, $100 invested in the S&P 500 index at its low in July 1982 is now worth $4,608 with reinvested dividends. So the Treasurys have outperformed stocks by 6.3 *times* since the early 1980s. And as we've often said, most investors believe Treasurys are only suitable for little old ladies and orphans.

CHART 33



Most investors only look at the yield on Treasurys and say it's now far too low to be of interest. But we've never, never, never bought Treasurys for yield. We couldn't care less what the yield is as long as it's going down—so prices are rising. We've always bought Treasurys for the same reason most investors buy stocks: appreciation.

We've discussed in detail in past *Insight*s the many reasons that equity investors, investment bankers, Wall Street analysts and even institutional bond managers are negative on Treasurys and have been throughout this marvelous 35-year rally. The current disdain was expressed in the June 10 edition of *The Wall Street Journal*: "The frenzy of buying has sparked warnings about the potential of large losses if interest rates rise. The longer the maturity, the more sharply a bond's price falls in response to a rise in rates. And with yields so low, buyers aren't getting much income to compensate for that risk." Since then, the 30-year Treasury yield has dropped from 2.48% to 2.15% as the price has risen by 6.5%.

CHART 34

Treasury Rally Returns

	Initial yield (as of 7/6/16)	Final yield (end of year)
30-yr.	2.14%	2.00%
10-yr.	1.38%	1.00%

	Total Return
30-yr. coupon	5.1%
30-yr. zero	4.2%
10-yr. coupon	4.9%
10-yr. zero	3.8%

Then, the July 1 *Journal* wrote: "Analysts have warned that piling into government debt, especially long-term securities at these slim yields, leaves bondholders vulnerable to the potential of large capital losses if yields march higher." Since then, the price of the 30-year Treasury has climbed 3.1%.

But what if instead of rising, Treasury yields fall, as they have this year, returning 14.1% on the 30-year Long Bond compared to 3.9% for the S&P 500? And we believe there's more to go. Over a year ago, we forecast a 2.0% yield for the 30-year bond and 1.0% for the 10-year note. If yields fall to those levels in a year from the current 2.14% and 1.38%, respectively, the total return on the 30-year coupon bond will be 5.1% and 4.9% on the 10-year note. The returns on zero-coupon Treasurys with the same rate declines will be 4.2% and 3.8% (*Chart 34*).

Favorable Forces

Slowing global economic growth and the growing prospects of deflation are favorable for lower Treasury yields. So is the prospect of further ease by central banks, including a rate cut by the Fed. Along with the dollar, Treasurys are at the top of the list of investment safe havens as domestic and foreign investors clamor for them. Furthermore, the ongoing drop in the federal deficit is reducing government funding needs and the Treasury has reduced the issuance of bonds in recent months. In addition, tighter regulators force U.S. financial institutions to hold more Treasurys. Also, central bank QE has vacuumed up highly-rated sovereigns, creating shortages among private institutional and individual buyers.

Also, as we've pointed out repeatedly over the past year, low as Treasury yields are, they're higher than almost all other developed country sovereigns (Chart 32). So an overseas investor can get a better return in Treasurys than his own sovereigns. And if the dollar rises against his home country currency, he gets a currency translation gain to boot (Chart 9).

<u>10. Corporate bonds</u> do not have the liquidity or safe-haven appeal of Treasurys nor the limitations on new issuance, but they do have higher yields that investors lust after. Furthermore, the ECB's QE includes the purchases of corporates, commenced in June, and it may have to step up purchases due to the shortage of sovereigns it can buy. The Bank of Japan may also enlarge its corporate bond acquisitions.

U.S. corporate bonds account for 12% of global investment-grade debt, including sovereigns, but represent 33% of yield on those obligations. Five years ago, they were 9% of outstanding debt and 13% of yield income. Factors responsible for this shift include issuance of corporate debt, not to fund capital spending but rather share buybacks and dividends. Also, the collapse in soveriegn yields has opened the yield spread vs. corporates.

<u>11. Negative interest rates</u> are an ongoing phenomenon and one that we'll only know the full implications of years from now. They certainly imply deflation, as we'll explore in the next section. The total sovereign debt with negative yields jumped from $1.3 trillion at the end of May to $11.7 trillion on June 27, and that includes a number of 10-year debts. Negative rates are the policy of central banks in Japan (*Chart 35*), the eurozone, Switzerland, Sweden and Denmark, but not so far the Fed. Right before the Brexit vote, Yellen said negative rates are "not something we are considering."

The central banks that pushed interest rates negative appear to be acting in desperation because zero rates and QE haven't revived economic growth. Also, they hope that negative rates will discourage interest in their currencies and depress them. Then they resulting rises in import prices will revive inflation. They also hope negative rates will spur borrowing and lending, figuring that banks will lend out their reserves at the central bank rather than pay interest on them. But those reserves are simply transferred to other banks in which borrowers deposit their loan proceeds. Total reserves can only be reduced by central bank selling of assets. Nevertheless, negative rates in principle should encourage borrowing and investment into riskier assets.

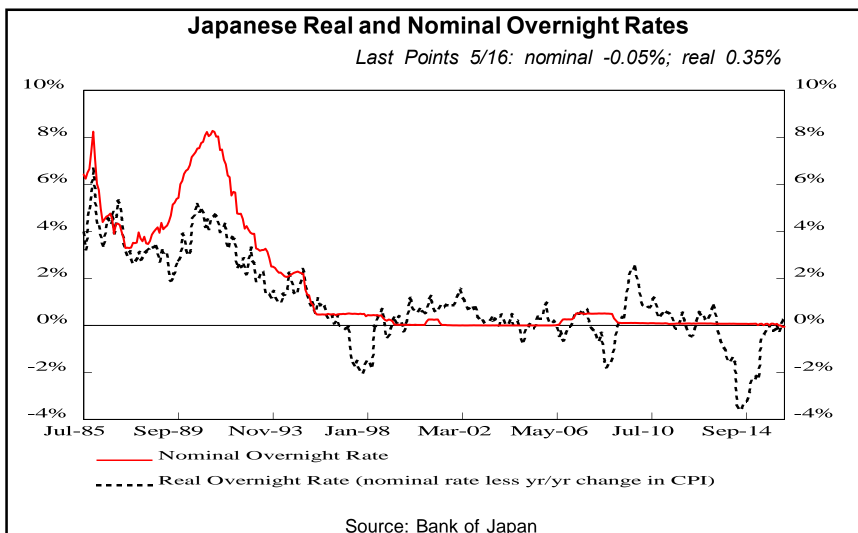
So far, negative rates have not had their intended effect but, instead, many bizarre consequences. Mortgage borrowers in Denmark have *negative* interest payments since they are linked to now-negative interest rates. Denmark has had a below-zero interest rate monetary policy for four years with a benchmark rate of -0.65%. Furthermore, with no interest paid on savings accounts, Danish investors are turning to property and speculative areas. Banks in Spain and Portugal are fighting proposed laws that would require them to pay borrowers when interest rates become negative.

Life insurers are being squeezed by negative rates on their portfolio investments. In Germany, regulators are forcing them to increase capital levels as offsets and said that they can only be sure that sector will be safe through 2018 as older, higher-yielding investments mature and must be replaced by lower-returning vehicles. Typical 5% guaranteed returns for policyholders add further pressure in Germany. In Switzerland, banks have raised mortgage rates to compensate for lower margins induced in part by negative central bank rates, the opposite of what the central bank desires.

Early this year, the Bank of Japan introduced negative rates on certain deposits from commercial banks. That has driven down long-term rates (Chart 32), but not enough to encourage borrowing in the face of the strong yen (Chart 11) and economic weakness (Chart13). At the same time, negative rates have squeezed banks' margins because they have forced corporate lending rates below zero, but not the rates on depositors' accounts used to fund those loans.

Japan's biggest bank, Bank of Tokyo-Mitsubishi, recently said it may no longer be a primary dealer in Japanese government bonds. Japanese banks have been bailing out of JGBs. They also believe that negative rates have actually caused households and businesses to cut spending because of increased uncertainty over the future. The BOJ, after penalizing banks by charging them for deposits at the central bank, is considering helping them lend by offering negative rates on some loans to banks.

CHART 35



Source: Bank of Japan

12. Real interest rates. As we've noted repeatedly in past *Insight*s, a primary goal of aggressive monetary policy is to get interest rates below inflation so that, in real terms, borrowers are paid to take the filthy lucre away. But during deflation, that's not possible unless nominal rates are negative. Until recently, when the sales tax increased from 5% to 8% in April 2014 and temporarily spiked inflation, real rates were positive more times than not over the last two decades.

In the U.S., nominal interest rates are still high enough and inflation not yet negative so real rates on 10-year Treasury notes are still positive (*Chart 36*). In Japan, nominal rates are negative but inflation even more negative so real rates are also positive (*Chart 37*). In Germany, however, nominal yields are more negative than inflation so real yields are negative, but not by much, -0.43% recently (*Chart 38*).

The moral of this story is that to achieve their goal of meaningful negative real interest rates, central banks have to slash nominal rates well below zero in the current state of very low inflation and deflation. But that introduces all the distortions of negative nominal rates, a few of which were mentioned earlier.

Note, however, that real Treasury bond yields were distinctly negative in the mid- and again in the late 1970s (*Chart 39, opposite page*), but for an entirely different reason. Back then, inflation was raging and exceeded bond yields, so owners of Treasurys were getting killed in real terms. But in response, the Fed—led by Paul Volcker—jacked up the fed funds rate to 19% and real rates leaped. Then, as inflation dropped from double-digit levels to now close to zero, real Treasury bond yields fell along with nominal yields.

13. Banks are under extreme pressure from slow growth in loan demand and the squeeze on profit margins caused by low and negative interest rates. Margins are also constricted by the flattening yield curve (*Chart 40, opposite page*) that squeezes the spreads between borrowing and lending costs at a time they are

CHART 36

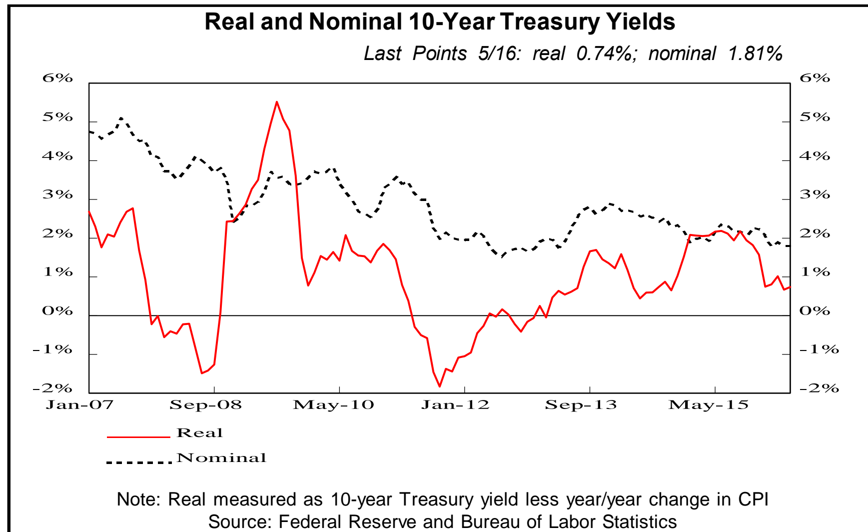


CHART 37

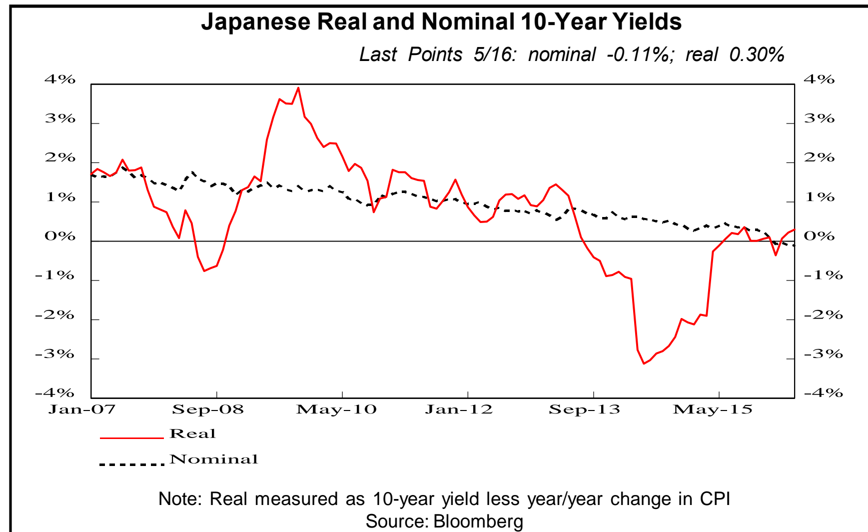
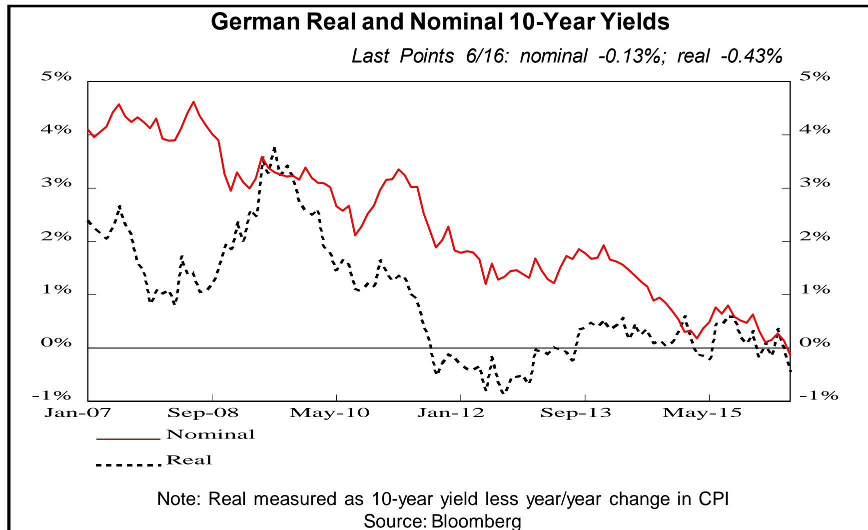


CHART 38



forced by regulators to hold more capital and therefore reduce their financial leverage.

Also, in the wake of the 2008 financial crisis and bank bailouts, regulators have bereaved them of activities that are much more profitable than spread lending, including propriety trading, derivative origination and trading and off-balance sheet investments. As long-term interest rates continue to fall, bank interest rate spreads will continue to atrophy.

Brexit has added fat to the fire, as reflected by the nosedive in bank stock prices since the referendum (*Chart 41*). The likely resulting slowing of the European economy is a major concern. So is the durability of the EU and the eurozone. Even more sluggish growth will be especially hard on bank operations in Southern Europe, which already suffers from shrinking margins, low interest rates, sluggish GDP growth and slack consumer demand. Likely rises in unemployment and falling property prices there spell a surge in bad bank loans.

Italian banks are especially stressed, with 17% of their loans troubled, 10 times that in the U.S., where just 5% were sour at the height of the financial crisis. Italian banks' profits are depressed by bloated staffs and too little capital to cover bad loans. Also, they've concentrated on low-profit spread lending with little orientation to higher fee-generating activities such as asset management and investment banking. Furthermore, they delayed and prayed during the financial crisis, rolling over delinquent loans in the hope that economic recovery would bail them out.

But ECB supervision of the eurozone's largest banks, beginning in 2014, stiffened loan impairment criteria, so the dubious loans that are recognized by Italian banks now total €360 billion, four times the 2008 level. They have written down bad loans to 44% of face value, but investors value them at 20% to 25% since Italian courts take an average of eight years to

CHART 39

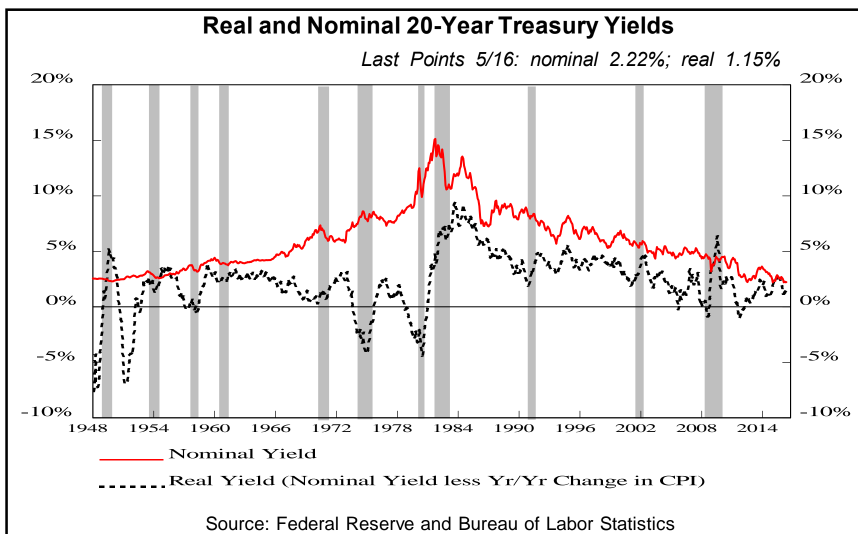


CHART 40

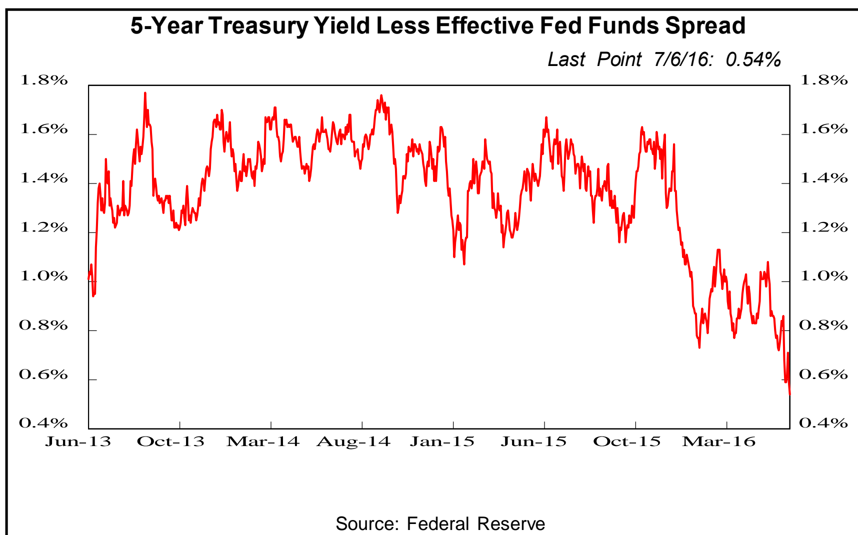
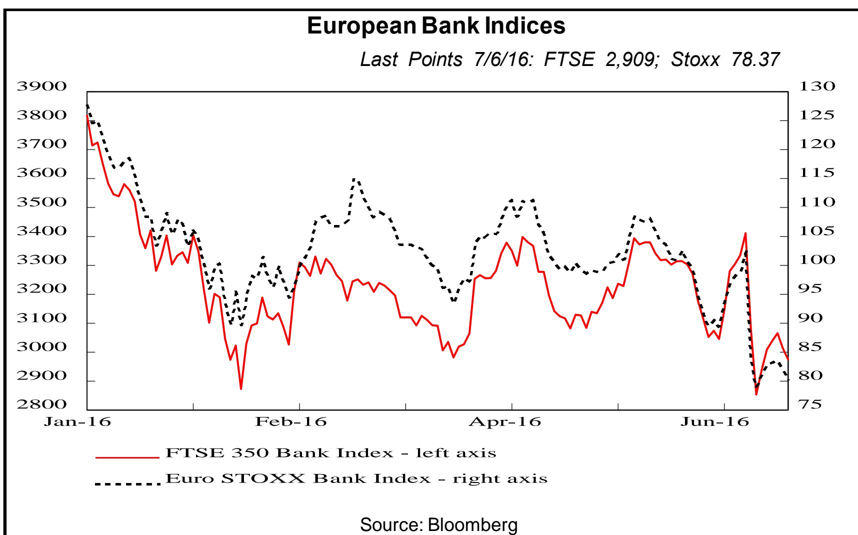


CHART 41



unwind insolvent companies. Not much loan collateral may be left by then.

Furthermore, the capital cushions of many European banks are already thin. Credit Suisse has pledged to boost capital by selling assets as has Deutsche Bank, which just flunked the Fed's stress test of its U.S. operations. Then there are the bank costs and disruptions of Brexit itself, including moving major operations from London to the Continent.

Not to be outdone, U.S. banks are also being pounded by the flattening yield curve. Also, mortgages and other loans that are tied to Treasury yields are earning less for banks. The KBW Nasdaq Bank index has dropped 9% since Brexit.

Recession Outlook

Brexit may very well precipitate a recession in Europe as slow economic growth (Chart 38, page 15) turns negative and it could spread globally if financial disruptions are severe. In the post-World War II era, recessions have been precipitated by Fed tightening when it fears an overheating economy. Of course, the central bank simply wants to cool things off, not precipitate a recession, but by our reckoning, a recession resulted in 11 of 12 instances of Fed tightening. Only in the mid-1990s did the Fed effect a soft landing. Still, it will probably be many years, and after the ongoing Age of Deleveraging is over, before the central bank embarks on such a policy.

Meanwhile, the U.S. and foreign economies are subject to recession-inducing shocks such as the dot com collapse in the late 1990s and the subprime mortgage debacle of the mid-2000s. The fallout from a further nosedive in oil prices, as mentioned earlier, as well as from Brexit might be a sufficient shock. In fact, the two could well go together as Brexit-induced weakening in global economies and therefore energy demand aids and abets the existing downward pressures on oil prices.

Fiscal Stimuli

Such a recession would no doubt spawn robust fiscal policy responses, especially since monetary policies are impotent, as discussed earlier. Indeed, "mad as hell" voters in Europe and North America and their populist reactions have probably already paved the way for government spending programs robust enough to revive economies, even before the Age of Deleveraging runs its course. As we've been stressing since early last year, and updated in our page 1 report, globalization and the resulting flat or declining real incomes for many for over a decade have spurred voters to reject mainstream politicians as inadequate to the job and turned them to the protectionist, anti-immigration fringes on the left and right.

The shrinking federal deficit, down 9% in fiscal 2015 that ended in September to $430 billion, is fading memories and fears of the earlier trillion-dollar shortfalls. As a share of GDP, the deficit has dropped from 10% in 2010 to 2.5%, the lowest since the 1.1% number in 2007 right before the Great Recession. Note, however, that federal debt owned by the public has kept rising and now stands near 73% since GDP growth has not kept up with debt increases. Also, Congress and the Administration have once again failed to address the long-run deficit problem. The red ink will leap in future years as the postwar babies retire and draw Social Security and Medicare benefits.

The $1.15 trillion multi-year federal government spending bill passed by Congress and signed by the President early this year signals that the earlier zeal for austerity has largely evaporated. It also ended a Medicare funding cliff and made permanent tax credits that will add over $800 billion to deficits over the coming decade. Republicans got more money for defense spending but accepted Democrats' demands for more domestic outlays in classic give-and-take fashion. This is a far cry from the budget resolutions passed by Republicans at the start of 2015, which promised to end deficits over the next decade by cutting $5 trillion in spending.

What Kind Of Stimulus?

What form could big fiscal stimulus take? Tax cuts won't fly with Democrats or the current Administration since many of their constituents in the lower half of the income spectrum pay little income tax—only 2% of the total—and won't benefit much. And Democrats would oppose tax cuts for the upper half who do pay the bulk of taxes. Besides, more after-tax income probably wouldn't increase their spending any more than have stock market-driven increases in net worth. On the other end of the spectrum, negative income taxes to get money into the hands of lower-income folks who would spend it quickly are anathema to Republicans.

So we suggested in our earlier reports that infrastructure spending might be a feasible middle ground, and the U.S. certainly needs major refurbishing and expansion of roads, bridges, public transportation and other infrastructure. The most recent Global Competitiveness Ranking from the World Economic Forum rates the U.S. third overall in competitiveness but 13th for infrastructure quality as a whole, 14th for roads, 15th for railroads and 16th for electricity supply system. It's estimated that aging roads and bridges are costing an extra $377 annually per driver.

Congress late last year approved $305 billion in spending for highways and mass transit for five years, the longest in two decades, in an unusual show of bipartisanship. Funding, however, is a problem since with more efficient cars, gasoline consumption growth has been muted and the 18.4-

cent per gallon federal tax—the same since 1993—can't generate adequate funds for the Highway Trust Fund. So Congress turned to temporary stop-gaps, selling oil from the national emergency reserve—obviously now at lower prices—and using money the Fed generates on its huge portfolio of $4.5 trillion and sends to the Treasury, after central bank expenses.

Nevertheless, as we learned in 2009 when fiscal stimuli were earmarked to fund shovel-ready projects, they hadn't even made the shovels yet—and they probably would be manufactured in China! The lack of planning and coordination between the federal government and state and local governments that actually carried out the construction work was staggering, and probably still is.

Infrastructure Proposals

Hillary Clinton is proposing infrastructure investment of $500 billion over five years with direct public investment, subsidies to cut borrowing costs on taxable infrastructure bonds and a national infrastructure bank that would leverage $25 billion in public seed money to support an additional $225 billion in loans and project guarantees.

The National Association of Manufacturers calls for major infrastructure spending of $100 billion per year for each of the next three years. It noted that outlays grew 2.2% per year in the 1956-2003 years, but fell 1.2% annually from 2003 through 2012. Total spending for roads and streets fell 19% between 2003 and 2012.

Elsewhere, a regional transportation board recently approved a $1.5 billion public-private toll-road outside Chicago after a series of private toll-road investments ended in bankruptcy. Other partnerships include road projects in Florida and Indiana and a new bridge between Elizabeth, N.J. and Staten Island, N.Y. to replace the aging and narrow Goethals Bridge—which we drive on to get from New Jersey to our beach house on Fire Island.

So there may be hope for major infrastructure spending in reaction to dire need and voter pressure. Furthermore, those outlays will create jobs and improved facilities that will boost productivity for years. Also, unlike government income-support programs, infrastructure projects are less likely to create political constituencies that keep them alive long beyond their usefulness. When the bridge is built, they cut the ribbon and construction workers can move on to the next projects, not to demonstrations demanding even more public support.

Defense Spending

It would take a tremendous federal government push—over the course of several years—to get meaningful infrastructure spending and the related job creation underway, an effort like the Eisenhower-backed Interstate Highway System in the 1950s. An alternative is defense spending, which can be spurred much more quickly since it essentially only needs federal approval. Military outlays would be attractive in Washington if Republicans retain control of Congress and win the White House, as suggested by our good friend and client, Doug Libby.

Defense spending hawks would be quick to point out that U.S. outlays have fallen from 5.6% of GDP in the third quarter of 2010 to 4.1% in the first quarter. Meanwhile, Russia has invaded Ukraine and annexed Crimea while China is grabbing territory in the South China Sea and building artificial island military bases. At the same time, North Korea is increasing her long-run nuclear missile capability and Iran's agreement to discontinue nuclear weapons development is highly doubted. And Britain's exit from the EU could precipitate its demise and undermine NATO and the Western Alliance's collective security. Meanwhile, Japan is shedding her post-World War II anti-military policy.

Lately, some other observers have joined us in suggesting the possibility of major fiscal stimuli to spur economic growth. Substantial infrastructure, defense and other programs could end the slow growth resulting from the now 10-year Age of Deleveraging, as noted earlier.

Some suggest that a combined fiscal and monetary effort is needed, with the deficits resulting from fiscal stimuli financed by new Federal Reserve money to avoid strains on credit availability. The Fed would no doubt cooperate if needed, but given the huge quantities of liquidity sloshing around the world and the global appeal of safe-haven Treasurys, additional QE may not be needed.

Want to stay up to date on Gary Shilling's media appearances and his thoughts on the economy? Be sure to follow him on Twitter

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Commentary

Hiring Criteria

When you're hiring young people fresh out of school, you want the best and the brightest, right? Probably not, because they often have overinflated opinions of their talents, can command elsewhere higher compensation than is economical for you and they won't stick around long enough to justify the cost of their training.

In medieval times, parents paid master craftsmen to take on their sons as apprentices. Those payments helped to defray the cost of their training. In contrast, today we pay sizable compensation for new hires and incur lots of time and effort to break them in. Even the best don't start to add value for about a year, and it takes the second year before they've paid us back for their initial costs and training. By then, many have moved on or are signaling their intentions to do so.

Goldman Sachs is shifting its recruiting away from the top universities to concentrate on those who want a long-term career in banking, not a two-year stint, as is often true of Harvard and Yale graduates. After an attack of common sense, the firm's recruiters apparently noticed that those with long careers who have risen to the top at Goldman Sachs are alumni of schools such as American University, Hamilton College, George Washington University and Rutgers.

An MBA student at Duke pursued me relentlessly for a job. He wanted a high starting salary and expected me to turn over a major portion of our investment advisory funds to him to manage. Well, Duke is a decent school but doesn't rank with Stanford, Harvard, Tuck or Wharton in MBA status. Furthermore, he had a mediocre academic record as an undergraduate at The Citadel, not a hot bed of intellectualism. And his two money-management efforts between there and Duke failed.

Cravath, Swaine & Moore, a major New York law firm, just upped the starting salaries for new junior lawyers by 12.5% to $180,000, and fourth-year associates will make $235,000. That followed a 10% boost in 2007 to $160,000. But clients are pushing back. Bank of America's general counsel e-mailed its outside law firms: "We are aware of no market-driven basis for such an increase and do not expect to bear the costs of the firms' decisions."

Fortune 100 companies are taking more legal work in-house, outsourcing routine activities to cheaper locales like India, demanding flat fees for specific jobs and axing payments for copies and phone expenses. They're also refusing to pay $400 per hour for first-year law firm associates or even pay at all for junior lawyers who often bill sizable fees for menial tasks.

I saw this first-hand some years ago while being prepared by lawyers from a top New York firm for testimony to the SEC. The only job of the associate who accompanied the partner was to get coffee for the group. At her billing rate of $350 per hour, that coffee—and I'm not a coffee drinker—cost about $500 per cup. So $5 a cup at Starbucks is ridiculously cheap!

Law firms' economic models generally rely on the billings of associates to cover costs, with partners' fees, now as high as $1,500 per hour, providing the profits. So client pressure on associate fees presents a problem. Also, discounts are becoming increasingly common. A decade ago, clients paid 92% of stated rates but last year, it was 83%.

Still, clients are relatively insensitive to legal costs when there is a lot of money at stake such as in mergers and acquisitions, restructurings or tax, antitrust and litigation cases. A survey revealed that the average highest rate for law firm partners in 2015 was $875 per hour, up 27% from 2012 despite the sluggish economic recovery in those years.

There's nothing wrong with hiring new people with superior academic credentials. I graduated Phi Beta Kappa from Amherst College with honors in Physics and went on to earn a PhD in economics at Stanford. I want those who have adequate brains, but I also want dedication to hard work and the willingness to reach out to do more than employees are asked.

Determination, passion and perseverance are all-important, and psychology professor Angela Duckworth developed a Grit Scale to measure these traits. She notes that "enthusiasm is common but endurance is rare," and found that the higher the Ivy League undergrads ranked by SAT scores, the less gritty they were.

The walls of my office are covered by framed quotes in calligraphy from the Bible, Shakespeare and many others, including Calvin Coolidge, who wrote:

"Nothing in this world can take the place of persistence. Talent will not: nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education will not: the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan 'press on' has solved and always will solve the problems of the human race."