Latest memo from Howard Marks: Expert Opinion

In August, I mentioned that I had chosen the title “Political Reality” for my memo in part because of my liking for oxymorons. I classed that title with other internally contradictory statements, such as “jumbo shrimp” and “common sense.” Now I’m going to discuss one more: “expert opinion.”

This memo was inspired by a thought that popped into my head when the outcome of the election settled in. You may point out that at the end of my November 14 memo “Go Figure!,” I said I wouldn’t write any more about politics. True, but I didn’t say I wouldn’t think about politics. Anyway, this memo isn’t about politics, it’s about opinions.

Last spring I attended a dinner where one of Hillary Clinton’s senior advisers was soliciting input, as she and her campaign were struggling to come up with an effective counter to Bernie Sanders’s populist message. Most of those present expressed frustration on the subject, until an experienced, connected Democrat assured everyone, “Don’t worry. She’ll win. The math is irresistible.” The Hillary supporters were relieved, and he turned out to be right: she won the nomination going away.

In late October, with the issue of Clinton’s private email server and the FBI’s new investigation further dogging her, that same seasoned Democrat was asked whether the election was in jeopardy. “Don’t worry,” he said. “She’ll win. The math is irresistible.” We all know the result.

The opinions of experts concerning the future are accorded great weight . . . but they’re still just opinions. Experts may be right more often than the rest of us, but they’re unlikely to be right all the time, or anything close to it. This year’s election season gave us plenty of opportunities to see expert opinion in action. I’ll start this memo by reflecting on them.

The Year Polls Stopped Working

Pollsters got off to a tough start last year with the June referendum concerning Britain’s membership in the European Union. Right up to the end, both pollsters and bookmakers considered U.K. citizens 70% likely to vote to remain a member. But, in the end, “Leave” won by a few percent.

The reaction was shock. Voters on both sides of the issue were unprepared for the outcome. Within a day or two, the leaders of Britain’s main political parties had stepped down. People began to seriously discuss what that outcome meant and how “Brexit” would be accomplished.

The explanations for the pollsters’ error centered around Britain’s lower level of experience with, and expertise in, polling. It couldn’t happen in the U.S. In fact, in the 2008 and 2012 presidential elections, Nate Silver, the proprietor of website FiveThirtyEight, correctly predicted the outcome in all 50 states once and in 49 the other time.

In 2016, FiveThirtyEight estimated the odds of Hillary Clinton winning as slightly better than 50/50 as of the end of the Republican convention in July. Then it had her as an 8-to-1 favorite in August, when the Democrats concluded their convention and Donald Trump’s perceived missteps peaked. And then it again said she was slightly ahead just before the first presidential debate on September 26. It never made her out to be an underdog. And on election day, it estimated that she was 71.4% likely to win.* Most other pollsters put her chances of winning at between 80% and 99%, and only one considered Trump the favorite.

In the end, of course, Trump won in the Electoral College by a final count of 304 to 227, despite losing the popular vote by almost 2.9 million votes, or about 2%. In particular, he won in a number of “swing states,” such as Pennsylvania, Michigan and Wisconsin, where the polls had him well behind. So much for experts’ forecasts.

Finally, rounding out the pollsters’ failures in 2016, the reform referendum that Italy’s Prime Minister Matteo Renzi bet his career on – which had been considered 3% behind – lost by 20%. The outcome wasn’t a surprise, but the margin certainly was.
No one really knows why polling failed so miserably last year. Clearly there was a groundswell of populist, anti-establishment and anti-insider sentiment, but shouldn’t it have been detected? In particular, Trump did much better than predicted (or much less badly) with a number of important groups, such as Hispanics and college-educated women.

For some reason, in 2016 pollsters in all three countries either failed to talk to a representative sample of voters, failed to elicit honest responses, or failed to accurately interpret the data. Thus their opinions may be accorded less weight in the future.

So Much for the Experts

I’m struck by how dramatically opinion can flip-flop:

- During the run-up to the election, Clinton’s campaign organization and “ground game” were considered sophisticated, efficient and unstoppable, and Trump’s were thought of as rag-tag, underfunded and uncoordinated. Now Trump’s machine is described as having been highly effective, and Clinton’s as having missed important signs and opportunities.
- Clinton’s message was thought likely to carry a lot of weight with a broad swath of the electorate, while Trump’s was viewed as appealing deeply to a few fervent but narrow fringe constituencies without enough voters for him to win. After the fact, Trump is described as having had “perfect pitch” and Clinton as having a “tin ear.”
- In particular, now it’s considered to have been a big mistake for Clinton to fail to address the concerns of white men and set out a solution for those who lost jobs and were omitted from economic progress. But during the campaign, no one pointed to this error.

* It should be noted – to his credit – that Silver insisted repeatedly that Trump could win. In fact, he often reminded his followers that the Clinton landslide most people expected was no more likely than a modest Trump victory. Silver also entered Election Day citing a 10.5% probability that Trump would lose the popular vote but win the presidency. We can’t say he predicted that outcome, but (a) he was more explicit about it than most and (b) he assigned a fairly material probability to an event that in the past has been quite rare (so it can’t be said that he was just extrapolating).

Finally, up until Election Day, most observers (including me) talked about the likelihood that the Republican Party would emerge from the election torn between its traditional faction, the Tea Party conservatives, and Trump’s economically disgruntled, anti-establishment supporters. That may turn out to be the case, but now the Democratic Party is described as being at risk as well because of the schism between the Clinton-type moderates and the Sanders/Warren progressives.

Here’s some of what I wrote in “Go Figure!,” six days after the election:

Think back to just before last week’s election. What did we know?

- The polls were almost unanimous in saying Hillary Clinton would win . . .
- There was a near-universal belief that a Trump victory – as unlikely as it was – would be bad for the markets.

So what happened? First Clinton didn’t win. . . . And second, the U.S. stock market had its best week since 2014! . . . Thus two key observations can be made based on last week’s developments:

- First, no one really knows what events are going to transpire.
- And second, no one knows what the market’s reaction to those events will be.

One of the key conclusions we should draw from the surprises of 2016 is that the pundits often failed to understand people and their views. It’s clear that people who work in the media hadn’t understood many average Americans; people with college degrees hadn’t understood those without them; and people living on the coasts and in metropolises hadn’t understood the rest. Strong sentiments and beliefs swung a pivotal election in ways the experts absolutely failed to grasp and thought were virtually impossible.

Of course there are no “facts” regarding most future events, just opinions. Experts – especially people who are paid to be experts – often couch their statements as facts, but that doesn’t mean they’re sure to come true.

And the Media?

When I was young, a limited number of media outlets were the public’s primary source of information. There were three TV networks and
four local stations – no more room on the dial – and until 1987 they were subject to the FCC’s Fairness Doctrine that required broadcasters to discuss controversial matters of public interest and air contrasting views. Edward R. Murrow, a TV news anchor, was one of America’s most respected men, and I often make reference to the time he said, “Anyone who isn’t confused doesn’t really understand the situation.” Walter Cronkite, Chet Huntley and David Brinkley were similarly trusted. Newspapers may have had Democratic or Republican leanings, but outside the editorial pages they largely avoided partisanship in covering events.

The subsequent proliferation of cable TV networks set off powerful competition for viewers. A few chose to be full-time purveyors of news, along with some talk-radio stations. Rush Limbaugh, Roger Ailes and Rupert Murdoch realized that a big following – and big money – could result from highly partisan, even inflammatory, broadcasting. Radio “shock jocks” like Don Imus and Howard Stern chipped away at standards for language and demeanor, and news and talk shows emulated them. So now we have outspoken, boisterous speech, along with highly partisan messaging.

These days the news media shows little resemblance to what it was 30, 40 or 50 years ago. Many outlets are highly biased to one side or the other and make it possible to read, watch and listen all day and never be exposed to all aspects of the issues. Thus most people find something to complain about in the media coverage of the 2016 presidential election.

Today’s media personalities rarely express the confusion Murrow did. Rather, they tend to state forecasts as certainties. When do you hear a TV commentator say “I think” or “it seems to me”?

In fact, they often remind me of the description of economists I heard in the 1970s: “portfolio managers who never mark to market.” That is, they find it easy to overlook the times when they’re wrong. In August or September of 2015, when Donald Trump was beginning to achieve success in his pursuit of the Republican nomination, a New York Times columnist flatly stated that because Trump couldn’t stand the prospect of losing, he would drop out of the race before the primaries began in January. We didn’t see that happen . . . or any further mention of his assertion.

What to Do About the Media

Given the nature of the candidates for the presidency, the starkness of the choice, and the recent trends in media coverage, I spent a great deal of time last year following political developments via websites, newspapers and television coverage. Most people I know did, and you may have as well. For many it became a preoccupation, even a mania.

My son Andrew has helped me dope out the media effects:

- Following events makes people feel they’re actively involved in them and well informed.
- People think and act with more confidence when they consider themselves informed.
- But the media pundits often are no more insightful than the rest of us.
- And anyway, people tend to follow media outlets that confirm their beliefs rather than challenge them.
- Thus following the media experts, while entertaining, can be a waste of time intellectually.

For these reasons, I greatly enjoyed an article that appeared in the Observer on November 16, a week after the election. It was entitled “Want to Really Make America Great Again? Stop Reading the News.” Ryan Holiday, its author, talked about what it’s like to be caught up in the news cycle.

For a number of reasons, there has arisen in the media:

- a system that needs more and more eyeballs for longer periods of time while gutting high-quality, reliable sources of information.
- We have more “news” but less original reporting than ever before, an order of magnitude more in the way of opinion and analysis, but as [author and academic] Tom Nichols has pointed out, somehow less expertise.

Chuck Klosterman [a writer on American culture] once remarked at how strange it was to walk through the front offices of a football team and find that everyone there was watching ESPN. Didn’t they have better information than the average viewer or reporter? Turns out, no – they’re addicted to the same media we are and subject to the same groupthink.

Twitter isn’t designed to help you get in and out with the best information as quickly as possible – it’s supposed to suck you into either a contentious world of argument and debate or an echo chamber that reassures you everyone thinks like you do.

We’re “participating” in the ecosystem because it’s addicting and because we’re curious.

So author Holiday came up with a useful prescription in response:

It’s not that I am going underground or completely disconnecting from current events. It’s that I have decided I am no longer going to watch them develop in real time. I’m going to watch the Saints play every Sunday, [but] I’m not going to fool myself into thinking that
tuning into “Sports Center” on Tuesday will help.

A lot of people’s lives would be more tranquil and more productive if they accepted that what the media says about an upcoming event – and whether you watch or not – won’t have any impact on the outcome.

What Do the Experts Know?

One of the reasons I crafted this memo this way is so I would have a chance to return to a subject I introduced in 2015: the New York Post’s “NFL Bettor’s Guide.” Each week during football season, the Post’s eleven experts advise its readers as to which teams to bet on. Here’s how the experts did over the full 17-week season, covering 256 games:

- The best picker was right 55.1% of the time.
- The worst picker was right 48.8% of the time.
- On average the pickers were right 51.6% of the time.

The experts further help readers by specifying up to three “best bets” each week. Here’s how they did on their strongest picks:

- The best picker was right 62.7% of the time.
- The worst picker was right 43.1% of the time.
- On average the pickers were right 54.0% of the time.

The available observations from this data are as follows:

- The way the overall results are distributed around 50/50 suggests the experts’ process is little more than a coin toss.
- On average the experts were right just 2.4% more often on their “best bets” than on all their picks.
- Two of the experts did worse on their “best bets” than on their other picks.
- Eight of the eleven pickers were right more than half the time. But since it costs about 5% per week on average to bet with the bookies, virtually none of the eleven experts’ overall picks added value after fees (sound familiar?). Even the average of the experts’ “best bets” wouldn’t have produced a positive return after fees.

Two additional observations:

- In week 16, all eleven of the experts predicted the favored New York Giants would beat the Philadelphia Eagles, and five of the eleven thought the underdog New York Jets would beat the New England Patriots (in both cases, after adjusting the scores for the “point spread” that the bookies impose to equalize the two teams’ chances of winning). When the games were played, the favored Giants lost by five points (meaning they did even worse after the 2½-point spread was subtracted from their score), and the Jets (who were expected to lose by 16½ points) lost by 38 instead. In other words, (a) the experts may have been heavily biased in favor of the New York teams and (b) they were wrong 73% of the time on these two games.
- Bettors also have the option to bet on the “over/under” in a game – that is, whether the two teams’ combined score will exceed or fall short of a threshold set by the bookies. It’s just another way for bettors to get “action.” The results show the experts were right in 128 games (52% of the time) and wrong in 123 (there were five ties). Again no value added, especially after fees.

If economists won’t publish their performance data, the Post at least performs a service by showing how its football experts did. The bottom line is that their opinions are of little help, and the related coverage omits all discussion of their lack of predictive value.

The Importance of the Macro

Interest in “macro” has amped up meaningfully over the last dozen years or so. I think it largely started with the increased activism on the part of the Greenspan Fed, and investors’ heightened interest in it. Today many analysts seem preoccupied with central bank behavior, government actions, trends in interest rates and currencies, and the movement of markets, as opposed to the fortunes of individual companies.

These things are almost all we hear about. And most people think knowledge regarding the outlook for them holds the key to investment success. Thus I want to make this a major topic here.

Since I speak a lot to clients, prospects, CFA societies and student groups, I get a lot of chances to hear what’s on people’s minds. And usually they focus on a relatively small number of questions. Over the last few years, the ones I’ve gotten most often have been these:
What will the Fed raise interest rates? – On May 22, 2013, in testimony to Congress, then Fed Chairman Ben Bernanke surprised the world by saying, “If we see continued improvement, and we have confidence that that is going to be sustained, in the next few meetings we could take a step down in our pace of purchases [of bonds]. . . .” By indicating the Fed could “taper” its bond buying – the quantitative easing that was an important part of its stimulus program – Bernanke was foreshadowing that interest rates, which had been suppressed for years, would begin to rise.

Ever since then, people have been preoccupied with when interest rate increases would take place, and that’s the question I’ve been asked most often. My response has been consistent: How would I know, and why do you care?

First, how would I know? I always point out that I’m not an economist or Fed watcher. And I don’t think economists or Fed watchers know the answer, either. No one consistently knows the timing of these things in advance, in particular because the Fed itself probably doesn’t know.

But more importantly, why would anyone care? If I say December, I ask them, what actions would you take? And if I changed that to March, would you do something different? The idea that you would do something different with a March expectation rather than a December expectation ignores the likelihood that the expectation of a March rate rise would begin to be reflected in asset prices well before March. That means the likely date of a rate rise is not a very useful piece of information.

What could go wrong? – For years it has felt to most people that we’ve been in a Goldilocks environment: neither too hot nor too cold. The economy hasn’t grown slowly enough to cause recession or deflation, or fast enough to bring on hyperinflation and the need for restrictive action. The markets have been strong enough to bode well, but not so strong as to suggest a bubble. Ditto for investor psychology.

Most people don’t want to tempt fate by saying things will go well forever, and in fact they know they won’t. It’s just that they can’t decide what it is that will go wrong. The truth is that while I can enumerate them, the obvious candidates (changes in oil prices, interest rates, exchange rates, etc.) are likely to already be anticipated and largely priced in. It’s the surprises no one can anticipate that would move markets most if they were to happen. But (a) most people can’t imagine them and (b) most of the time they don’t happen. That’s why they’re called surprises.

So I can guess at “improbable disasters” like acts of war, disinflation or a sudden seizing up of the economy, but they’re unlikely to happen, and I don’t know much more about them than anyone else. The greatest single influence of the last three years was doubtless the 75% decline in the price of oil from June 2014 to February 2016. But who predicted it?

In my memo “It’s All Good” (July 2007), on the doorstep of the financial crisis, I insisted that the good times couldn’t roll on forever. But I didn’t know it was sub-prime mortgages that would be the catalyst for a turn for the worst, and when I listed my candidates, I ended with “the things I haven’t thought of.” That’s still about the best I can do . . . or most others, it seems.

What inning are we in? – Perhaps no one can say just what it is that will ring the bell on today’s positive trends, but people still want to know how advanced we are in the process, and thus when it will come to an end. People began to ask me what inning we’re in during the financial crisis of 2008, and they’ve continued ever since.

First of all – admittedly I’m being picky here – people rarely specify which game they’re asking about. Is it the economic recovery, the credit expansion, the string of low-default years, the upswing in investor psychology, or the stock market rise? Certainly the answer could be different for each.

But, more importantly, the question assumes we know how long each game will go on. A standard baseball game consists of nine innings, so “second inning,” “sixth” or “ninth” has a clear meaning. But with the things we’re wondering about here, we never know how long the game will run.

So rather than “what inning,” I’d suggest investors ask whether things are or are not in an extended state. Is psychology depressed, average or euphoric? Is the capital market shut tight, normal or unthinkingly generous? These are questions that can be answered in a helpful way, not how close the game is to being over. No one knows the answer to the latter.

What’s the outlook for country xyz? – The bottom line for me here is that people tend to confuse general intelligence, good investment records, expertise in specific areas, and all-around insight. Thus I’ll reiterate that I’m no economist (and even if I were, my chances of being right would be limited). And then I’ll add that being experienced as an investor and even hopefully intelligent says nothing about being able to divine a specific country’s macro potential.
After I spend a day or two in a country, people often ask for my conclusions. But in the course of my visits, I generally a) visit only big cities, b) meet only with financial types, and c) spend more time answering questions than gathering information. In fact, on one recent visit I responded to the usual question by telling my audience that I hoped each member knew more about their country than I did. I sometimes gain visceral impressions of the countries I visit, but they’re usually data-lite and likely to come true only in the longest run, if at all.

**Implications of the Election**

Of course, the U.S. presidential election was the biggest story of 2016, and it brought me endless questions. Who would win? I’d read the same polls as everyone else, lived on the coasts, and reached the same conclusions. I could bring no unique insight on the basis of which to question the likelihood of a Clinton victory.

How would the two candidates differ as president? It didn’t take any brilliance to conclude that a Clinton administration would be quite predictable and operate within rather narrow boundaries, while anything was possible from a Trump presidency – in some cases better than a Clinton one, but also with considerable potential for worse.

I was in Australia on Election Day and just after, and questions about the implications started immediately. In fact, they’re what inspired me to write “Go Figure!” over the following weekend in Seoul. In it, I described the following questions as being open:

- How much of what Trump said while campaigning did he mean?
- How much of what he actually meant will he try to implement?
- And how much of what he tries to implement will he be able to effect?

We still don’t have answers. As for the markets, it’s clear Trump intends to be a very pro-business president. But what actions he’ll take and whether they’ll succeed is very much up in the air.

Of course, only nine weeks have elapsed since the election. Any expert who tells you what’s in store from the Trump administration – or from Britain’s departure from the EU; Italy without reform and Renzi; the Indian economy with 85% of its currency cancelled (the highest-denomination notes, 500 and 1000 rupees, were declared no longer legal tender in order to rein in corruption and the underground economy); or the coming elections in France and Germany – is talking through his hat.

**My Opinion of Opinions**

Since I’ve discussed these things at great length over the years, I’ll try here to sum up succinctly:

- There are no facts about the future, just opinions. Anyone who asserts with conviction what he thinks will happen in the macro future is overstating his foresight, whether out of ignorance, hubris or dishonesty.
- Developments in economies, interest rates, currencies and markets aren’t the result of scientific processes. The involvement in them of people – with their emotions, foibles and biases – renders them highly unpredictable. As physicist Richard Feynman put it, “Imagine how much harder physics would be if electrons had feelings!”
- It’s one thing to have opinions on these subjects, but something very different to be confident they’re right (and act on them).
- Taking bold action based on forecasts of things that are uncertain isn’t just misguided; it’s dangerous. As Mark Twain said, “It ain’t what you don’t know that gets you into trouble. It’s what you know for certain that just ain’t true.”
- Everyone at Oaktree has opinions on the macro. And when we see extremes in markets and, especially, capital market behavior, we’re apt to take strong action. But we’re highly aware of what we don’t know, and when conditions are moderate or indistinct, we don’t bet heavily.

I’ll end this section by sharing my latest epiphany on the macro. I realized recently that in my early decades in the investment business, change came so slowly that people tended to think of the environment as a fixed context in which cycles played out regularly and dependably. But starting about twenty years ago – keyed primarily by the acceleration in technological innovation – things began to change so rapidly that the fixed-backdrop view may no longer be applicable.

Now forces like technological developments, disruption, demographic change, political instability and media trends give rise to an ever-changing environment, as well as to cycles that no longer necessarily resemble those of the past. That makes the job of those who dare to predict the macro more challenging than ever.

**What about Facts?**

While I take a dim view of forecasts, and especially of opinions presented as facts, I do believe there are such things as facts. Unfortunately, however, the concept of “facts” is among the casualties of the increasingly partisan environment. Recently we have seen both the elevation in status of “non-facts,” as well as the tearing down of “real facts.”
“Fake news” emerged as a significant issue in 2016. Some people believe it influenced the election. Ease of access to social media makes it quite simple to create and disseminate statements that others will believe, even if they’re total fabrications. The pizzeria fronting for a child-abuse ring led by Hillary Clinton is just one of 2016’s wilder examples. I expect to see continuing discussion of the proper role of social media in taking down untrue posts, and of the conflict between defending freedom of expression and preventing the publication of falsehoods.

At the same time, I’m concerned about the disappearance of real facts. Nowadays it seems almost anything can be characterized as questionable. There’s broad agreement among scientists that humans play a significant role in climate change – as there is among sitting world leaders – and yet we hear this idea dismissed as “a matter of opinion.” The other day I heard a former U.S. Senator who now leads a policy think tank describe as “fake news” a Congressional Budget Office report with which his organization takes issue. If the non-partisan CBO isn’t accepted as objective and truthful, who will be?

In a time of raging partisanship, disrespect for experts, and drastically debased standards for discourse, is there such a thing as a fact? Can there be no distinction between opinion, fact and fake fact? Can there be a figure everyone trusts, another Edward R. Murrow? Can any statement be safe from disparagement even though it’s not 100% measurable and provable? Is history subject to unlimited revision if there are no video images? What will our grandchildren be taught is the meaning of the word “true”? What authorities will they trust? We certainly live in interesting times.

Macro Investor Performance

The acid test of an investment strategy is whether it produces good results. So here we are: first, “everyone knows” macro is a key determinant of investor performance these days, and second, there have been a lot of significant macro developments of late, providing opportunities for those with foresight to apply their predictive powers. Thus the ingredients have been in place for significant gains on the part of macro-oriented investors.

Let’s take a look at the results for two Hedge Fund Research macro fund indices and compare them against the HFR index of all hedge funds:

<table>
<thead>
<tr>
<th>Annualized Net Returns</th>
<th>1 year</th>
<th>3 years</th>
<th>5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFRI Macro (Total) Index</td>
<td>-1.17%</td>
<td>1.64%</td>
<td>0.74%</td>
</tr>
<tr>
<td>HFRI Macro: Discretionary Thematic Index*</td>
<td>-1.96%</td>
<td>-0.47%</td>
<td>0.35%</td>
</tr>
<tr>
<td>HFRI Fund Weighted Composite Index</td>
<td>3.37</td>
<td>2.46</td>
<td>4.23</td>
</tr>
</tbody>
</table>

* Macro funds run by individuals, not algorithms

While the average hedge fund’s return has been puny, I think it’s fair to say the average macro fund’s return has been seriously deficient. **In fact, the average macro fund’s net return may not have been statistically different from zero.** Thus, based on the indices, it’s hard to say managers paid to profit from macro developments have done so.

The Last Word

To close, I’ll weave together a few recent inputs:

First, I had dinner with Warren Buffett about a year ago, and he pointed out that for a piece of information to be worth pursuing, it should be important, and it should be knowable. These days, investors are clamoring more than ever for insights regarding the macro future, because it’s important: it moves markets. But there’s a hitch: Warren and I both consider these things largely unknowable. He rarely bases his investment actions on them, and neither does Oaktree.

Second, I want to include a final paragraph from the Observer article about the media that I mentioned earlier. I think it’s golden:

>“If you wish to improve,” Epictetus [first-century Greek philosopher] once said, “be content to appear clueless or stupid in extraneous matters.” One of the most powerful things we can do as a human being in our hyperconnected, 24/7 media world is say: “I don’t know.” Or more provocatively, “I don’t care.” Not about everything, of course – just most things. Because most things don’t matter, and most news stories aren’t worth tracking. (Emphasis added)
Finally, I want to describe a great phone call I received this past spring, from a sell-side economist I worked with in the early ’70s and have stayed in touch with since. “You’ve changed my life,” he said. “I’ve stopped making forecasts. I study data and report on my inferences. But I no longer express opinions about the future.” Mission accomplished.

January 10, 2017

**Bonus section:** I’ve been collecting (and recycling) quotations for almost forty years, more of them concerning forecasts than anything else. Here are five of the very best. *Together they say virtually everything that has to be said on the subject:*

We have two classes of forecasters: Those who don’t know – and those who don’t know they don’t know.

– John Kenneth Galbraith

No amount of sophistication is going to allay the fact that all of your knowledge is about the past and all your decisions are about the future.

– Ian Wilson (former GE executive)

Forecasts create the mirage that the future is knowable.

– Peter Bernstein

Forecasts usually tell us more of the forecaster than of the future.

– Warren Buffett

I never think of the future – it comes soon enough.

– Albert Einstein

**Legal Information and Disclosures**

This memorandum expresses the views of the author as of the date indicated and such views are subject to change without notice. Oaktree has no duty or obligation to update the information contained herein. Further, Oaktree makes no representation, and it should not be assumed, that past investment performance is an indication of future results. Moreover, wherever there is the potential for profit there is also the possibility of loss.

This memorandum is being made available for educational purposes only and should not be used for any other purpose. The information contained herein does not constitute and should not be construed as an offering of advisory services or an offer to sell or solicitation to buy any securities or related financial instruments in any jurisdiction. Certain information contained herein concerning economic trends and performance is based on or derived from information provided by independent third-party sources. Oaktree Capital Management, L.P. (“Oaktree”) believes that the sources from which such information has been obtained are reliable; however, it cannot guarantee the accuracy of such information and has not independently verified the accuracy or completeness of such information or the assumptions on which such information is based.

This memorandum, including the information contained herein, may not be copied, reproduced, republished, or posted in whole or in part, in any form without the prior written consent of Oaktree.

© Oaktree Capital Management