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Economic and Market Outlook

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Evidence Matters

What gets measured, gets managed.

--Peter Drucker

Section I. Something Never Seen Before and Some Things Seen

Part A. Uncharted Waters of Fiscal Policy

Jamie Dimon, Chairman and Chief Executive Officer of J.P. Morgan, said on July 31, 2018, in an interview on CNBC:

Central banks around the world are starting to reverse course after a decade of nursing economies back to health by buying up trillions of dollars' worth of bonds.

He continued:

The market has never seen this bond-buying activity, called quantitative easing, and has also never witnessed a period of time when it is being reversed [our emphasis]. Regulations are different. Monetary transmission is different. Governments have borrowed too much debt, and people can panic when things change.

Dimon's second worry for the economy and financial markets was more immediate:

The single biggest risk to the economy is the U.S. trade dispute with China. If it escalates into a full-blown war, it would erase much of the progress the Trump administration has made.

Since his remarks, the trade war rhetoric and actions taken have both intensified. The President now threatens tariffs on an additional \$267 billion in Chinese goods, on top of duties on \$200 billion in imports already about to go into effect, as well as the \$50 billion already in effect.

At the same time, President Trump has intensified threats in all directions. The latest threats have added Japan to the long list.

The Administration claims the second quarter's 4.2% gain in GDP was the "greatest growth ever [our emphasis]." Besides its being an untrue statement—see Chart-1 (US GDP Growth Rate)—fully 1.1% of the 4.2% increase came from a huge preemptive bump in pre-tariff soybean exports to China. "Kiss that goodbye," says *The New York Times*, in an article entitled, "Clouds Darken Trump's Sunny Economic View," August 6, 2018. The article continues: "Expect to see one percentage point of GDP wiped out in the third quarter."

Bricklin Dwyer, Senior Economist with BNP Paribas, was quoted in the same *NY Times* article, as saying that "growth is likely peaking. Indeed, in our forecasts, [the second quarter] marks the high-water mark for growth."

So far, the stimulus effects of the \$1.5 trillion in tax cuts and the \$300 billion increase in added deficit financing (i.e., government spending) has shielded the economy and its financial markets from the Trump Administration's mistaken late-cycle fiscal stimulus policy and the growing trade war.

We say *mistaken* fiscal policy because we fully agree with John Maynard Keynes, one of the greatest economists in history (1893-1946), who would have argued vehemently against using deficit spending and tax cuts to stimulate an economy already at near-full employment.

As we said in our March letter entitled, "The Mistaken Gamble of Fiscal Policy," such fiscal policy as that used by the Trump Administration is not only the wrong policy, but one that is dead wrong.

The fact that the second quarter and the third quarter just ended have seen GDP rise to the 4% level should not be seen as completely healthy. Inflation is coming!

Former Fed Chairman Ben Bernanke, speaking before the American Enterprise Institute in June 2018, said, "What you are getting is a stimulus at the very wrong moment. The economy is already at full employment [our emphasis]."

Bernanke felt so strongly about the potential of overheating the economy, leading first to accelerating inflation coupled with higher interest rates, and then to "going off the cliff" in 2020, that he stated, "Wile E. Coyote is going to go off the cliff, and he's going to look down." See the cartoon drawing following Chart-1; the drawing accompanied Bernanke's speech in major newspapers back in June.

The U.S. inflation rate bottomed in 2015, after falling from early recovery highs in 2011. Inflation began strong acceleration in 2017, and now stands at the highest level since 2011—see Chart-2 (Underlying Inflation Gauge Full Set and Prices since 1995).

The Labor Department's September report for August continues to show an 18-year low level of unemployment, at 3.9%. Most economists see this as near-full employment; thus, they expect labor shortages to push wage growth higher. In fact, year-over-year wage growth was 2.9% versus 2.7% in July and the fastest since June of 2009.

The strong labor market is desirable, but major shortages of labor are not. We have arrived at the point when shortages drive wages, which accelerate overall inflation. Interest rates will not stay quiet for much longer.

Martin Feldstein, Professor of Economics at Harvard University and former Chairman of the Council of Economic Advisers under Ronald Reagan, sees the greatest risk to the economy and the stock market as the future increase in long-term interest rates.

In a recent article, Feldstein says, “The interest rate on Ten-Year Treasury Bonds is now about 2.9%, implying a zero real rate when compared to the current level of the CPI.” See Chart-3 (Consumer Price Index for All Urban Consumers: All Items). He continues, “Historically, the real ten-year Treasury rate has been about 2%, implying that the ten-year rate might rise to 5%.” He goes on to suggest that the increasing pace of inflation by itself will cause investors to demand higher long-term rates. He adds:

But the major cause of the rise in the ten-year rate is likely to be the massive fiscal deficit. The Federal government is scheduled to borrow more than \$1 trillion in 2019 and subsequent years.

The long-term interest rate will therefore be driven higher by rising short-term rates as the Fed normalizes monetary policy, by higher inflation in response to tighter labor and product markets, and by the explosion of the Federal debt that needs to be absorbed by investors.

The result will be a decline in share prices. I don't know when that will happen, but I am confident that it will. [Our emphasis.]

Feldstein's view that shortages of labor and bottlenecks in the supply chain (i.e., lack of component parts) is exactly what, earlier this year, we predicted would prove troublesome (March letter).

Currently, there are a million-plus fewer hires than job openings.

Part B. Escalating Trade War

Nouriel Roubini, Professor at NYU's Stern School of Business and Senior Economist for International Affairs during the Clinton Administration, who is one of the very few to have predicted the U.S. and the world's economic crisis that began in 2007, said in an article entitled, “Trump May Kill the Global Recovery” (July 2018):

How does the current global economic outlook compare to that of a year ago? In 2017, the world economy was undergoing a synchronized expansion. ... Fast-forward to 2018, and the picture looks very different. ... Economic growth in the eurozone, the United Kingdom, Japan, and a number of fragile emerging markets is slowing. And while the U.S and Chinese economies are still expanding, the former is being driven by unsustainable fiscal stimulus [our emphasis].

Roubini continues:

The combination of a stronger dollar, higher interest rates, and less liquidity does not bode well. ... Despite strong corporate earnings—which have been goosed by the US tax cuts—US and global equity markets have been buffeted by fears of rising inflation and import tariffs. The danger now is that a negative feedback loop between economies and markets will take hold.

He ends by saying:

Over time, growth-enhancing US policies will be swamped by growth-reducing measures. Even if the US economy exceeds potential growth over the next year, the effects of fiscal stimulus will fade by the second half of 2019.

So far this year, financial commentators and investors have taken the position—
Don't worry. No Trade War. It's going to get resolved!

Of course, trade wars are not easy to win. “When you disrupt supply chains, when you demonstrate that we are unreliable trading partners, you lose those relationships permanently”—quote from Bloomberg *Business Week* (July 23, 2018). Bloomberg continues: “One indication that Trump’s influence will be lasting is foreign opinion has turned against the U.S. as a nation, not just against the President. Approval of U.S. global leadership slipped from 48 percent in 2016 to 30 percent in 2017.”

Part C. When All Is Well

Currently, U.S. economic growth is strong, and the stock market (i.e., most major Indexes) has made new highs. Complacency abounds concerning economic growth, volatility in the markets, trend of inflation, and trade policies.

The level of confidence can be seen in Chart-4 (NFIB Small Business Optimism Index) and in Chart-5 (Conference Board Consumer Confidence Index). Note that the Conference Board’s Confidence Index is higher than at any time since 1977, except for the three-year period preceding the Dot.Com stock market bubble and 2001 recession. Also note that Chart-6 (Consumers’ Love Affair with Present Not Matched by Feelings About Future) shows the largest gap between present feelings and future expectations, again since the three-year period 1998-2000.

Are recession risks increasing? Yes, but there are a few signs of high-level imbalances that pose a more immediate threat.

In our view, the second and third quarters of this year will prove to have been the high-water mark for the accelerated economic expansion.

Although the strong environment is unlikely to continue to support the recent rates of growth, we believe a recession is highly unlikely to begin before late 2019 or early 2020.

Fortunately, there is considerable time for diligent monitoring of the development of economic imbalances.

Chart-7 (The U.S. equity market usually peaks before the recession hits) simply heightens our need for caution. The fact we raise issues of caution at a time of heightened confidence that all is well is our pledge to our duty not only to enhance clients' assets over time, but to protect them as the highest priority.

Part D. Why We Remain Fully Invested

We begin here with two Charts representing the best of Now Forecasting of the economic trend. Chart-8 (Aruoba-Diebold-Scotti Business Conditions Index) and Chart-9 (Chicago Fed National Activity Index) both show current readings far above the recession declaration of -0.80 for Chart-8 and -0.70 for Chart-9. A third Now-Forecasting tool comes from the Atlanta Fed.: Chart-10 (Evolution of Atlanta Fed GDPNow real GDP estimate for 2018: Q3) suggests the third quarter is not only still expected to be positive, but indicates that the GDP will be up 3.8% year-over-year. Clearly, the economy remains positive, whether late-stage or not.

As the final support for our current belief in remaining fully invested in equity positions, as appropriate to each client's circumstances and goals, we present an update of our seven forecasting tools that have historically led recessions with their warning.

The current state of the economy is one of expansion. That conclusion is based on the current status of the seven economic indicators that have served us well.

Our conclusion is further supported by the Nowcasting Indexes of the Federal Reserve Banks of Chicago and Philadelphia, as well as the Atlanta GDPNow real GDP estimate for 2018, discussed above (Chart-10).

The status of each indicator appears in the Summary Table below.

Summary Table of Charts 11-17

<u>Indicator No.</u>	<u>Chart</u>	<u>Indicator Name</u>	<u>Status</u>
(1)	<u>Chart-11</u>	<u>Advance Real Retail and Food Service Sales</u> (Percentage Change from Year Ago)	Positive
(2)	<u>Chart-12</u>	<u>Civilian Unemployment Rate</u> (Current vs. 12 Months Moving Average)	Positive
(3)	<u>Chart-13</u>	<u>Industrial Production</u> (Percentage Change from Year Ago)	Positive
(4)	<u>Chart-14</u>	<u>Real Personal Income</u> <u>Excluding Transfer Receipts</u> (Percentage Change from Year Ago)	Positive
(5)	<u>Chart-15</u>	<u>All Employees: Total Nonfarm Payrolls/Civilian Labor Force</u> (Percentage Change from Year Ago)	Positive

(6)	<u>Chart-16</u>	<u>10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity (Percent)</u>	Positive
(7)	<u>Chart-17</u>	<u>Smoothed U.S. Recession Probabilities (Percent)</u>	Positive (low prob.)

Concerning the indicators listed in the Table above (see Charts 11-17), it is important that any decision to reduce the allocation to stocks due to an expected Recession depends on sell signals from a majority of the seven indicators.

In effect, four of the seven must be negative and, at the same time, the market direction must be negative (i.e., the 40-Week Moving Average of the S&P 500 Index must be greater than the current week).

It is clear from the Table above, we are nowhere near meeting the required forecast for a Recession and, by derivation—a Bear Market.

Of Charts 11-17, concerning the positive status of our forecasting tools, only Chart-12 (Civilian Unemployment Rate) and Chart-16 (10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity) provide any concern.

In the case of the Unemployment Rate, it is not the 3.9% rate itself, seen in Chart-12, but the fact of the underlying problem of skilled-worker shortages that concerns us. Shortages cause two problems. First, shortages may cause wages to rise faster than output. The result is that output begins to fall without a sufficient labor supply. Second, accelerating wages drive inflation and interest rates higher.

The warning signal comes when the current Unemployment Rate rises above its 12-month moving average.

The critical point comes when the Unemployment Rate begins to climb as output, or production, weakens. Once the Rate rises 0.50% (i.e., ½ of 1%) from any level, 100% of the time, a recession follows immediately.

Our additional concern involves the potential of an inverted Yield Curve. In Chart-16, we see the potential is close. When the short (2-year) rate exceeds the long (10-year) rate, an inversion takes place, and a Recession follows. The lead time is more than a year on average, but the message is historically clear—a Recession will be coming.

Since the stock market is itself a leading indicator for Recession, and as we saw in Chart-7, which shows that the stock market trend leads Recessions by about six months, such a lead means that investors will need to pay attention if the Yield Curve turns negative, or if the Unemployment Rate begins to climb. But until such events happen, we remain fully invested.

Simply put, our goal is to monitor and be prepared. Peter Lynch, widely regarded as one of the most successful investors in history, while running the Magellan Fund (1977-1990), said, “You get recessions, you have stock market declines. If you don’t

understand that's going to happen, then you're not ready, you won't do well in the markets."

The major point of our quarterly letters is to observe and check the health of the economy and markets. Being prepared is critical. Reporting that the economy is currently all right is not enough. Warning signs are developing and will be monitored!

The final Section of this quarterly letter is the third part of an extended White Paper called, "Aspects of Investing."

As Peter Lynch declared:

The person that turns over the most rocks wins the game.

Section II. White Paper: Aspects of Investing (Continued from Sub-Section II.A Investment Decisions in the Era of Intangible Assets [June 2017] and II.B Make Portfolio Construction Mean Something! [September 2017])

Sub-Section II.C. Looking for Alpha

Every new beginning comes
from some other beginning's end.
--Seneca

Segment 1. A Little Parable of GAAP

About 1980, a growth began forming within the body of financial analysis. The tumor spread from changes in GAAP—the elements of security analysis. As the mutation grew, the usefulness of the ratio of cells diminished. The output of the body fell weak—the quality of the effort became but formulae belonging to the past—that is, until the immune system began looking for Alpha.

Just how messed up now are the data inputs used to make value judgments about securities?

In our June 2017 report entitled, “Facts-on-the-Ground,” we cited a major study published by the New York University’s Stern School of Business. In the study entitled, “Valuing Companies with Intangible Assets” (September 2009), Professor Baruch Lev declared:

Generally Accepted Accounting Principles (GAAP) continue to be stuck in the wrong century because our economy has radically changed from manufacturing to service-based, and increasingly value is derived from a firm’s investment in Intangible Assets not Tangible Assets [our emphasis].

The study continues, “As a result, many of the basic inputs that we use in valuations—earnings, cash flows, and return on capital—are contaminated [our emphasis].”

In an article presented in the *Financial Analysts Journal* (Q-4, 2017) entitled, “Time to Change Your Investment Model,” Professors Baruch Lev and Feng Gu updated Professor Lev’s 2009 report. They started by declaring, “Earnings no longer reliably reflect changes in corporate value and are thus an inadequate driver of investment analysis [our emphasis].”

In Figure-1 (Components of S&P 500 Market Value), we see the enormous change between 1975 and 2015. Note: Intangible Assets, that were only 17% of the S&P 500 Market Value in 1975, had become 87% by 2015.

It is precisely because of the size and growth rate of Intangible Assets that earnings have fallen from grace.

Since GAAP requires the immediate expensing of Intangible Assets acquired, rather than allocating their expense over the expected life of such assets, earnings today are greatly understated; and are thus increasingly useless to valuation measures such as the price-to-earnings ratio (P/E Ratio), or return on investment (ROI), book value, etc.

In short, because of earnings' contamination—so, too, are measures of a stock's value.

In a paper entitled, “Why We Need to Update Financial Reporting for the Digital Era,” by Vijay Govindarajan, Shivaram Rajgopal, and Anup Srivastava, published in the June 8, 2018, issue of *Harvard Business Review*, the authors reflect on the growing crisis in accounting, by pointing again to the rise of Intangible Assets as an explanation for the failure of earnings, and other key ratios used by investors, to measure value. They say:

We show that earnings explain only 2.4% of the variation in stock returns for a 21st century company—which means that almost 98% of the variation in companies' annual stock returns are not explained by their annual earnings [our emphasis].

As the authors indicate, “The new building blocks of value are Intangibles, like research and development, brands, organizational strategy, peer and supplier networks, customer and social relationships, computerized data, software, and human capital.”

They continue, “Yet, for the digital company, investments in its building blocks are not capitalized assets; they are treated as expenses in calculating profits.”

Both the work by Professors Baruch Lev and Feng Gu and that of the three authors cited above conclude that disclosures to investors must be primarily based on non-accounting information, which focuses on strategy and execution, highlighting indicators that are both relevant and forward-looking.

In effect, investors need to identify strategic assets that generate net benefits and are difficult to imitate.

Furthermore, investors should consider how the business uses social tools to interact with customers; how they use mobile devices in the conduct of business; how they use big data and analytics to understand their consumers; how they use R&D, technology purchases, customer acquisition, brand support, and employee training expenditures to maintain and grow the business.

In The End of Accounting blog, posted by Professor Baruch Lev on March 2, 2018, he reported that, under GAAP rules, nearly 50% of U.S. companies are losing money—see Figure-2 (Percentage of Loss Firms: 1960-2016). The main finding—both losses from All Firms and from Science-Based & Technology Firms have been increasing over the decades rather than diminishing. The percent of All Firms with reported losses based on GAAP requirements in the year 1980 was about 18%. By the year 2016, the percent reporting losses had risen to 46%.

The circumstances for Science-Based & Technology firms appears even more distressing, as the number reporting losses in their Annual Reports had risen from 20% in 1980 to 69% in 2016.

Professor Lev drew our attention to the change from 1980 for the simple reason that, in that year, the Financial Accounting Standards Board (FASB) changed the accounting methods to be used (i.e., the GAAP procedures). He said, “I felt there is something fishy in those GAAP-based earnings numbers, leading one to look deeper in the data.”

In 1980, the FASB moved to a Balance-Sheet Model.

What is the Balance-Sheet Model?

It was best defined and criticized by the Center for Excellence in Accounting and Security Analysis at the Columbia Business School in a position paper dated September 2007. The paper was entitled, “On the Balance Sheet-Based Model of Financial Reporting.” In the paper, Professors Llia D. Dichev and Stephan Penman said:

The adoption of the balance sheet approach was driven by conceptual considerations; standard setters argued that the concept of assets is more fundamental and logically prior to the concept of income. However, this paper argues that the concept of income is clearer and practically more useful than the concept of assets, especially with the recent proliferation of intangible assets.

Earnings is the single most important output of the accounting system. Thus, intuitively, improved financial reporting should lead to improved usefulness of earnings. However, the continual expansion of the balance sheet approach is gradually destroying the forward-looking usefulness of earnings, mainly through the effect of various asset re-valuations, which manifest as noise in the process of generating normal operating earnings [our emphasis].

Returning to Professor Lev’s discussion of “something’s fishy” about the data in Figure-2, he says:

This massive expensing in the income statements of U.S. companies—total corporate investment in intangibles during 2016 exceeds \$2.1 trillion (yes, trillion!)—turns the profits of many successful and promising companies into losses. Tesla’s massive losses are mainly due to the expensing of R&D (\$834 million in 2016).

He goes on to indicate that if adjustments were made for Intangible expenditures and, to a lesser extent, for one-time charges, which reflect past events that are irrelevant for forecasting, rather striking results take place:

1. All Firms with a GAAP loss reported drop from 46% in 2016 to under 18%.
2. And among Science-Based & Technology Firms reporting loss, the number for 2016, which was 69%, would fall to 24.8%.

Considering the overstatement of corporate losses and/or the understatement of profits, how can any investor conclude anything about a stock's valuation, or for that matter, the stock market's valuation?

Simply put, we can fully say traditional inputs to security selection and, thus, to portfolio construction are truly messed up!

Changing the focus of security analysis from traditional methods to identifying the strategic assets used by corporations and identifying the quality of managements will continue to be difficult, but waiting for changes in GAAP is not an option. Moreover, making investment decisions in the Era of Intangible Assets is far more likely to involve more non-financial than financial information.

Segment-2. New Beginning—The Integrated and/or Separate Value of Non-Financial Data

In our June 2017 White Paper, we first raised the question, How, then, shall investment decisions be made?

We began the answer to the question by pointing to the approaches used by Phil Fisher and Charlie Munger, two of the greatest investors in history. In both cases, their approach was to select investments by analyzing the quality of a company's management.

We said:

The Phil Fisher/Charlie Munger model is basically to evaluate companies based on the analyst's perception of a corporation's long-term growth potential. In other words, they advised to buy not on the basis of a trailing earnings P/E ratio or a low price-to-book ratio, but instead on the basis of such things as having high-quality management, being a leader in an evolving industry, and having solid prospects for the long-term.

For ease of reference, we again repeat their lists:

Munger's "10-Point Check List" has been taken from *Business Insider* (October 26, 2016):

1. Measure Risk, especially reputational (i.e., Customer Loyalty).
2. Be Independent—mimicking the herd invites regression to the mean.
3. Prepare Ahead.
4. Have Intellectual Humility.
5. Analyze Rigorously—be a business analyst, not a security analyst.
6. Allocate Assets Wisely—be situation-dependent and opportunity-driven.
7. Have Patience—"Compound interest is the eighth wonder of the world" (Einstein); never interrupt it unnecessarily.
8. Be Decisive—act with conviction.
9. Be Ready for Change—continually challenge and willingly amend your best-loved ideas.

10. Stay Focused—keep it simple and remember what you set out to do.

Phillip Fisher's earlier list of "15 Points to Look for in a Common Stock" comes from *Business Insider* (November 4, 2011):

1. Does the company have products or services with sufficient market potential to make possible a sizeable increase in sales for at least several years?
2. Does the management have a determination to continue to develop products or processes that will still further increase total sales potentials when the growth potentials of currently attractive product lines have largely been exploited?
3. How effective are the company's research and development efforts in relation to its size?
4. Does the company have an above-average sales organization?
5. Does the company have a worthwhile profit margin?
6. What is the company doing to maintain or improve profit margins?
7. Does the company have outstanding labor and personnel relations?
8. Does the company have outstanding executive relations?
9. Does the company have depth to its management?
10. How good are the company's cost analysis and accounting controls?
11. Are there other aspects of the business, somewhat peculiar to the industry involved, which will give the investor important clues as to how outstanding the company will be in relation to its competition?
12. Does the company have a short-range or long-range outlook in regard to profits?
13. In the foreseeable future, will the growth of the company require sufficient equity financing so that the larger number of shares then outstanding will largely cancel the existing stockholders' benefit from this anticipated growth?
14. Does the management talk freely to investors about its affairs when things are going well but "clam-up" when troubles or disappointments occur?
15. Does the company have a management of unquestionable integrity?

We can all see that Fisher's list is more of a direct group of questions about companies of possible interest, while Munger's incorporates a guide to the investor's behavior.

As a partial answer to the GAAP problem of mis-categorization of Intangibles as Operating expenses rather than Capital expenses, we presented four alternative approaches to security selection, which we repeat here:

1. High Sustainability Ratings (Environment, Social, and Governance [ESG])
2. Customer Satisfaction Ratings
3. Employee Satisfaction Ratings
4. Allocation of Capital (Tangibles vs. Intangibles)

Before discussing the above, in particular the ESG Ratings' importance to future financial analysis, we discuss some information on the need for understanding a corporation's strategic assets, plus a number of suggestions in upgrading the use, or importance, of existing financial data.

Feng Gu and Baruch Lev outline an alternative model to the GAAP's balance-sheet model for making investment choices (Vol. 73, No. 4 of the 2017 CFA Institute Publication, called *The Financial Analysts Journal*). This model is based on identifying a corporation's strategic assets in order to understand the competitive advantages that exist and the role they play in value creation.

We quote Gu and Lev below at length because of the importance of their discussion in our view (with our emphases throughout). They begin:

What really creates or destroys value, long-term, are changes to the strategic assets of businesses.

Thus, for example, for pharma and biotech companies, focus on changes in the product pipeline, relative to previous quarters: How many drugs under development progressed (e.g., moved from Phase I to Phase II clinical tests)? What is the remaining patent life (maximum 20 years) of the company's best sellers? And were the market shares of these best sellers increasing or decreasing?

For internet services providers, telecom, and media & entertainment companies, focus on the customer franchise: How many new customers were added this quarter relative to previous ones? Did the churn rate (monthly customer deactivation rate) increase or decrease? Did customer acquisition costs per new customer increase or decrease? Improvements of the above signal progress, worsening of the measures are warnings of bad things to come.

For insurance companies, look carefully at the *policies renewal rate*, which is the best measure of customer satisfaction and trust in the company. Also consider the data on the *frequency and severity of claims*. Changes in these measures indicate changes in the quality and risk of the customer portfolio (book)—the company's most important asset.

And similarly for other industries. Focus on changes in the investment in strategic assets and their deployment to create value (e.g., renting the company's platform to others).

Ironically, all of the above indicators are not required to be disclosed by GAAP. Talk about the irrelevance of accounting. But most companies provide data on strategic assets in quarterly earnings calls and attached presentations—the "call deck." I am an avid reader of conference calls. Even managers' BS in these calls is revealing.

They continue by stating that investors should ask of all companies, "Is the spending on R&D, technology purchases, customer acquisition, brand support, and employee training sufficient to maintain and grow the business?"

Additionally, they say investors need to question whether or not a company's strategic assets "are adequately protected by continuous innovation, patent defensive

walls, and litigation? A continuous loss of market share clearly indicates a failure to protect assets [our emphasis].”

From the presentation above, we can see that Gu and Lev’s proposals for corporate disclosures to investors should be based primarily on nonaccounting information.

As for the use of reported financial information, they suggest the following (with our emphasis and clarifications):

Don’t waste your time on GAAP earnings or analysts’ consensus.

Ask, are the strategic assets, along with other company resources, optimally deployed to create value (e.g., retail outlets with increasing same-store sales)? And what is this value? Note that in our analysis, the measurement of value created is a byproduct rather than the focus of the analysis. We prefer to measure value created by cash flows to avoid the multiple managerial estimates embedded in earnings.

In contrast to cash flows generally used by analysts (EBITDA [Earnings Before Interest, Taxes, Depreciation and Amortization]), however, we add to cash flows [from the cash flow statement] the company’s investments in value—creating strategic assets, such as R&D, IT, and unusual brand creation expenditures, which are not really operating cash outflows.

From the above study, together with opinions of investors like Charlie Munger and Phil Fisher, we add the following:

First— Examine Revenue growth and its sources with particular interest in changes in market share and accelerating or decelerating momentum.

Second—Watch for changes in R&D as a percent of Revenue.

Third— Examine changes in the market’s company-beta, for the beta of a company has two important functions (as described below by MSCI, formerly Morgan Stanley Capital International; MSCI provides analytics for professional investors):

First, beta measures the systematic risk exposure of companies (i.e., lower beta means less systematic risk) and second, it translates the equity risk premium into the required rate of return for the individual company [our emphasis]. Therefore, lower systematic risk means a company’s equity has a lower value for beta and therefore investors require a lower rate of return. Ultimately, this translates into a lower cost of capital for a company. This argument can be extended to multi-factor models, where the systematic risk exposure of a company is measured by several factor loadings instead of one beta.

Finally, a lower cost of capital leads directly to the last step of the transmission mechanism: In a DCF model framework, a company with lower cost of capital would have a higher valuation. [MSCI quote from *Foundations of ESG Investing*, Nov. 2017.]

Clarifications of Terminology:

- Systematic risk refers to the general risks related to the market, like the economic risk, interest rate risk, inflation risk, etc.
- Cost of capital includes the cost of debt and the cost of equity capital. It becomes the hurdle rate that a company must overcome before it can generate value.
- DCF model equals the Discounted Cash Flow; it is a valuation model used to estimate the attractiveness of an investment opportunity.

Segment-3. Investment Decisions Reimagined

Environmental, Social, and Governance (ESG) investing looks to make decisions on non-financial factors, either integrated with or separate from traditional financial data.

For years, investment analysis has depended on evaluating financial data (from the Income Statement and Balance Sheet) using an approach fathered by Benjamin Graham, in his classic books, *Security Analysis* (1934) and *The Intelligent Investor* (1949). At the heart, such analysis relied on the evaluation of Tangible Assets and traditional financial data.

ESG data had not been considered, until the last few years (i.e., primarily since the Harvard study of March 2015), as part of traditional financial analysis, let alone as perhaps the most important part of such analysis. The Harvard study will be reviewed in what follows.

In January of 2015, think tank Ocean Tomo kicked off the year with a report entitled, “Beyond the Bottom Line: The ESG Investing Advantage.”

In their report, they found:

Tangible data makes up a surprisingly small percentage of the market value of the S&P 500 Index. Rather, the majority of the value for companies within the index is comprised of goodwill, reputation, customer and employee relationships, environmental performance, brands, patents, and other intangible assets.

Our Figure-1 (Components of S&P 500 Market Value) is their graph of the dramatic rise of Intangible Assets.

In March of 2015, the Harvard study entitled, “Corporate Sustainability: First Evidence of Materiality,” was released. Ocean Tomo declared:

The outperformance in the Harvard study was so significant as to suggest that material sustainability factors have yet to be even modestly reflected in market values. One might say that material sustainability factors offer a large opportunity to grab Alpha [our emphasis].

To clarify the meaning of Alpha, we quote Invesco’s definition:

Alpha is used in finance as a measure of performance. Alpha, often considered the active return on an investment, gauges the performance of an investment

against a market index or benchmark which is considered to represent the market's movement as a whole. The excess return of an investment relative to the return of a benchmark index is the investment's Alpha.

Since the March 2015 publication of the Harvard study, by Professors Mozaffar Khan, George Serafein, and Aaron Yoon, there has been an explosion of interest in ESG ratings.

In July 2015, Robert R. Mudra, CFA, discussed the then-new Harvard study on Sustainability, in a *Financial Analysts Journal* article entitled, "ESG: A Material Information Advantage." He said:

Conventional wisdom suggests that sustainable investing doesn't add alpha, right?

Wrong! Harvard researchers have found new evidence linking performance on sustainability issues to stock performance.

What is Alpha? Again, Alpha is a measure of performance (i.e., the excess return of an investment relative to the return of a benchmark index like the S&P 500 Index).

What is Sustainability, and what types of issues are measured? We begin by saying that they are measures for ranking issue-specific performance that cross considerations related to the Environment, to the Social, and to corporate Governance issues (ESG) impacting corporate activity.

Table-1 (Calvert Research Sustainability Categories for *Barron's* Annual 100 Most Sustainable Companies) shows one of many such category lists. (Note: the set of Tables follows the set of Figures at the back of this report.)

Table-2 (ESG – Issues) is, in fact, a list of the categories selected for the Harvard study.

Before presenting the results of the Harvard study, what follows is the abstract of the study:

An increasing number of companies make sustainability investments, and an increasing number of investors integrate sustainability performance data in their capital allocation decisions. To date, however, the prior academic literature has not distinguished between investments in material versus immaterial sustainability issues. We develop a novel dataset by hand-mapping data on sustainability investments classified as material for each industry into firm-specific performance data on a variety of sustainability investments. This allows us to present new evidence on the value implications of sustainability investments. Using calendar-time portfolio stock return regressions we find that firms with good performance on material sustainability issues significantly outperform firms with poor performance on these issues, suggesting investments in sustainability issues are at a minimum not value-destroying. Finally, firms with good performance on material issues and concurrently poor performance on

immaterial issues perform the best. These results speak to the efficiency of firms' sustainability investments, and also have implications for asset managers who have committed to the integration of sustainability factors in their capital allocation decisions. [Our emphasis.]

[Note: These studies use the materiality definition adopted by the Sustainability Accounting Standards Board, and defined by the U.S. Supreme Court: information is material if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available." --Harvard Business School]

Figure-3 (Mapping of Performance) presents the findings:

First— Firms that made investments in material sustainability issues, while avoiding investments in immaterial issues, had the best performance, with an annualized Alpha of 6.01% between 1990 and 2013.

Second—And more importantly, firms that make little or no sustainability investments have the worst performance, with an annualized Alpha of -2.90% (i.e., minus Alpha means the amount that is less than the market's annualized rate of return).

Third— Firms that have a low level of investment in material sustainability issues but spend a high amount on immaterial issues still have a low, but positive, Alpha, 0.60%, clearly suggesting the investment was not completely wasted.

Fourth— Firms that had a high investment in both material and immaterial issues had the second-best Alpha, of 1.96%. The point here is that being the best corporate citizen by making large investments in all, or nearly all, sustainability categories is a partial waste of resources. Concentration on issues that are high in materiality to their industry proved the most rewarding.

A further point can be made. In Figure-4 (Top ESG Score vs Bottom ESG Score), the cumulative outperformance of the top quintile in the Harvard study outperformed the bottom quintile by a factor of more than two times.

In effect, when considering best and worst groups investing in high-material sustainability issues, the top quintile was dramatically better than the bottom quintile.

Segment-4. Summary Points Across the Literature

After the Harvard study was released in March of 2015 (#1 under Table-3 [Sources--Studies]), a flood of studies and articles from both academic and private sources became available.

The impact can be seen in [Figure-5](#) (Growing Up). The explosion of U.S. and European [ESG mutual-fund assets](#) between 2015 and the end of 2017 was a gain in assets of 46% (i.e., from \$515 billion to \$750 billion).

The [Oxford/Harvard study](#) (#2 under Sources) reports:

The unanimity of the studies and articles is nothing short of profound. . . . ESG data should be included or integrated into traditional evidence-based analysis.

In short, industry-specific classifications of materiality identify ESG information that is value-relevant and predictive of firms' future financial performance.

[McKinsey & Company](#) (#3 under Sources), speaking about Institutional Investors, says, "Farsighted institutions are already building systems to rate external managers."

[PRI](#) (#4 under Sources) offers [Figure-6](#) (Stages), providing Qualitative analysis for the purpose of fully integrating ESG data with traditional data.

[Calvert-Serafeim](#) (#5 under Sources) finds:

In a market environment that increasingly precludes Alpha generation based purely on an analysis of financial metrics, the proper integration of ESG information into investment analysis can uncover risks and opportunities that markets have not yet valued.

[Vert Asset Management](#) (#6 under Sources) says:

Portfolios managed with ESG strategies do not underperform conventional portfolios. A review of 200 academic papers on the economic results of ESG practices by corporate managers finds,

- 90% of the cost of capital studies show that sound ESG standards lower the cost of capital of individual companies;
- 88% of the studies show that solid ESG practices result in better corporate operational performance;
- 80% of the studies show that company stock price performance is positively influenced by good sustainability practices.

[BlackRock](#) (#7 under Sources) concludes their analysis: "We find ESG can be implemented across most asset classes without giving up risk-adjusted returns." They offer [Figure-7](#) (Avoid and Advance), which summarizes their ESG implementation approach.

[Russell Investments](#) (#8 under Sources) posed the question: "Can new materiality scoring be used as an ESG signal for investment decision making?" Their answer is an unequivocal, "Yes!"

[MSCI](#) (#9 under Sources) conducted the second-most in-depth study, after the Harvard study; as part of their results, they provided [Figure-8](#) (MSCI KLD 400 Index vs S&P 500), [Figure-9](#) (Research Methodology), and [Figures 10-a, -b, and -c](#) (Cash-Flow Channel, Idiosyncratic Risk Channel, and Valuation Channel). These figures illustrate the outperformance of their ESG Index, which returned an annualized positive Alpha of .81% over the S&P 500 Index (i.e., 8.21% less 7.40% = .81%) between 1990 and 2016.

Figure-9 lays out the progression for ESG ratings when added to the DCF model (i.e., Discounted Cash Flow model) used to evaluate a firm's potential attractiveness.

Figures 10-a, -b, and -c reflect the key findings, which have borne out the analysis they presented of the three transmission channels when adding strong ESG profiles to performance results. They added the following commentary (with our emphasis):

- To extract the optimal value from ESG data, ESG integration required a multi-channel approach that uses both systematic and idiosyncratic risk information provided in the ESG rating within a long-term investment horizon.
- ESG ratings may need to be integrated into the financial analysis of companies to ensure model valuations are in line with stock market valuations.
- Both ESG ratings and ESG momentum were important indicators. While ESG ratings measured both systematic and idiosyncratic risks and consequently influenced corporate valuation and profitability measures, ESG momentum indicated potential future changes, e.g., valuation changes.
- ESG ratings may have acted as long-term predictors for future tail risks; in this study, they reflected how exposed a company was to key risks and how well it mitigated those risks. Thus, it may be useful to incorporate ESG ratings into the asset allocation process and policy benchmarks.

TruValue Labs (#10 under Sources) tested results from compiling ESG scores with positive momentum. This was the first in-depth study of momentum of ESG Rankings.

The results are quite dramatic. TruValue Labs found that, among the 500 stocks of the S&P 500 Index, Alpha (added return above the S&P 500 Index) was an annualized 5.47% for the 10-years period, February 2008 to February 2018.

Additionally, for the Russell 1000 Index, Alpha was 4.94% during the same period.

Their momentum score of ESG gives investors a high-definition view of the trajectory of a company's ESG performance.

The effort behind their momentum scores is very much the same as the "Now" forecasting approach to economic trend analysis by the three Fed banks (Atlanta, Chicago, and Philadelphia).

Clearly, the TruValue Labs study presents very interesting work!

Segment-5. Conclusion of White Paper

Based on the evidence presented from our survey of the literature concerning ESG, it is our judgment that Sustainability Ratings of firms are at least as important as traditional financial data inputs to the decisions concerning the attractiveness of a firm's securities.

Moreover, we believe that ESG analysis, together with the suggested improvements to traditional financial data presented in this report, can overcome the massive deficiencies that currently exist in traditional security and market analysis.

The question of whether or not the use of ESG ranking of the factors of materiality, together with the use of economic forecasting tools, like “NOW,” will replace, or simply augment, traditional security analysis, using Discounted Cash Flow and P/E Ratio models based on GAAP, remains open. The challenge is real.

Like Peter Lynch, we continue to lift rocks.

In light of the Harvard study and subsequent studies (see [Table-3 \[Sources—Studies\]](#)), we began an open-ended study of our own in July of 2017. The purpose of our research effort was to design portfolios based on ESG Ranking data. Since there are multiple sources of Ranking data, each with different emphasis-weighting, our secondary purpose was to sample our selection of a number of sources, and to use the same sources for at least each of the next two additional years (for a total tracking of at least three years) for consistency.

Thus, the first ESG portfolio of 39 stocks, representing the top three Rankings from each of 13 categories (sources), was created this past year.

The first portfolio has completed its first year of Alpha performance (July 2017 to July 2018). As indicated above, this portfolio will continue to be tracked annually for at least the next two years.

In addition, a second year’s portfolio (beginning July 2018) has been created. A third will again be created to begin July 2019.

The purpose of these second and third portfolios is to examine annual performance when creating a new list of 39 stocks from the new top three (if they changed at all) in the same 13 category sources.

These second and third portfolios will also be allowed to go forward for at least three years.

But a truly interesting linked performance will emerge from the concept of re-taking equal-weighted positions of the new top three ESG-Ranked stocks to begin each portfolio.

As a final note, the first-year test was successful. The portfolio’s return greatly exceeded the benchmark returns from the S&P 500 and the Dow Jones Industrial Average. In effect, there was clear (statistically relevant) Alpha benefit from an ESG-selected portfolio over the benchmark returns.

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