At Alger, we focus on change. That typically applies to our analysis of companies and their stocks. Our research also enables us to understand how powerful secular trends are impacting the equity landscape and driving divergence between growth and value investing. Over the past decade, the Russell 1000 Growth Index has returned over 40% more than the Russell 1000 Value Index (see Figure 1). The single biggest contributor of that gap is the weak performance of low price-to-book stocks, even after eliminating the impact of the underperformance of financial companies in the value category. This driver of equity performance is critical because trillions of dollars are indexed to style benchmarks like the Russell value and growth indices, where classification is determined in large part by price-to-book value. Clearly, the multitrillion dollar price-to-book value metric has faltered.

In this paper, we discuss the following broad trends behind the underperformance of value equities generally and low price-to-book value stocks specifically:

• Changing business models and the inability of accounting standards to keep up with change
• Slower global economic growth
• Acceleration in the development and adoption of innovation

**Accounting Standards Fail to Reflect Change**

The underperformance of low price-to-book value stocks can be explained, in part, by a combination of corporations’ increasing reliance on intangible assets, accounting standards that fail to reflect those changing business models, and

Figure 1

**Growth Has Dramatically Outperformed Value**

Results are indexed to a starting point of 100.
Source: FactSet. Data through 12/31/2018.
the heavy reliance on one particular metric for style classification (price-to-book value). Today, many businesses use fewer tangible assets such as plants and equipment than in the past and they are increasingly more reliant on intangible resources including research and development, advertising, marketing, and training. Accounting professors Baruch Lev and Feng Gu have observed that over the past 40 years the investment rate in physical capital fell by 35% while the investment rate in intangible assets grew by almost 60%.2

New economy companies such as internet businesses are an example. They use far fewer tangible assets relative to the income they generate than do more traditional companies such as auto manufacturers that have to build large factories. For internet companies, intangible assets can include search algorithms that attract users who in turn can drive advertising revenues. User data can also be considered an intangible asset. Such data can support advertising revenue for digital media companies and sales for online retailers. In those examples, the intangible assets generate revenues that in turn drive earnings growth.

The problem is that accounting practices haven’t kept up with the changing economy. Spending on intangible assets (done organically and not through acquisitions) is not capitalized in current accounting standards and therefore is not included in book value, rendering the price-to-book value metric less effective. Without including the value of intangible assets in book value, new economy companies are more likely to have high market values relative to their book values and therefore be classified as growth companies.

By relying heavily on price-to-book value rather than other methods of valuation such as price-to-earnings, style classification is increasingly separating companies based on business models. For example, digital companies with higher returns on capital are more likely to be classified as growth even if their cash flows are large relative to their market value. These companies, broadly speaking, have used innovation to create products and services that have resulted in high returns on capital and strong earnings growth. In doing so, they have outperformed companies that have greater capital needs, particularly tangible assets. Indeed, low price-to-book equities have underperformed not just the broad market, but other value equities such as those with low price-to-earnings (see Figure 2).

Figure 2
Low Price-to-Book Value Stocks Have Underperformed

Results are indexed to a starting point of 100.
Russell 1000 Value Divided by Russell 1000 Growth Total Return illustrates the underperformance of value stocks.
The illustration of the performance of low P/B stocks relative to the broad market is intended to show the correlation of low P/B stocks to the underperformance of value stocks.
Implications of Slower Global Growth

Under the current classification system, the value category is heavily weighted with companies that are dependent on economic growth rather than innovation or other intangible assets to increase profits. Unfortunately, economic expansion has slowed in the U.S. and around the world over the past several years. In the U.S., the economy has grown a bit over 2% annually in the past five years compared to over 3% annually in the decade prior to the last recession. This slower growth has had two profound impacts on style performance:

• It has disproportionally hurt value stocks, such as heavy equipment or commodity companies. Those companies tend to be more cyclical than growth companies.

• Slower economic growth and inflation (along with quantitative easing) have driven down interest rates, which has hurt the performance of financial companies. The higher weighting of financial stocks within the value universe relative to the growth category has therefore contributed to the divergence in style performance.

The Accelerating Speed of Innovation

The divergence in growth and value is also being driven by technological advances that are expanding at an exponential rate, which means the rate of change is accelerating. This acceleration is apparent most famously in Moore’s law, which explains the rate of improvement in transistors, but we also see it in information storage (e.g., hard drives), information transportation (e.g., fiber-optic cables), wireless telecommunications, energy, and even illumination. In doing so, technology is creating a potent engine to drive the economy forward.

The increasing pace of change means that newer innovations are spreading through society faster. Older innovations such as the dishwasher and washing machine took many decades to reach 50% penetration of the U.S. market but more recent innovations such as the internet and social media have taken 14 years and nine years, respectively. The accelerating rate of innovation may wreak havoc with value investing because it is essentially dependent on cheap valuations and depressed fundamentals improving. In a world where change is happening more rapidly, value stocks that appear cheap may more often simply be victims of change while growth stocks may benefit as purveyors of change.

THE IMPORTANCE OF FUNDAMENTALS

Over the years, value investing pundits have routinely repeated a mantra of value stocks outperforming growth equities. Today, the same pundits avoid discussing how wrong they have been or why their claims that value will outperform have been wrong. Instead, they maintain that the strong outperformance of growth has made value stocks more appealing. We have a very different viewpoint.

Our focus has always been to emphasize corporate fundamentals. We are valuation sensitive and Alger analysts and portfolio managers spend an intense amount of effort thinking about valuation and risk. However, we believe that when seeking attractive investment returns, the fundamentals of a company, of a sector, and, indeed, of the economy matter much, much more than valuations.

Our point today is that economic fundamentals in the U.S. and globally are not simply changing as they always have, but they are undergoing radical restructuring. Among the many reasons for this restructuring, the most dominant factors are the internet and mobile communications.

Those developments have forever changed the structure and fundamentals of the business landscape. As a result, it is only natural that an investment process—value style investing—focused first and foremost on valuation parameters, may produce underperformance. Instead, investors should question whether the parameters and accounting metrics on which value stocks are classified remain as accurate today as they did 30, 40 or more years ago when they were first broadly adopted.
Conclusion
While we are ardent believers in growth investing, we are not suggesting that value investing will always underperform. Rather, we maintain that the definitions of growth vs. value and accounting standards need to evolve with the economy because change is accelerating. We believe that investors reflexively using “standard” but increasingly outdated valuation measures to invest are at risk of missing attractive equity opportunities in the U.S. and globally that arise from the positive fundamental changes occurring across industries and economies resulting from innovation. Classically, for Alger, that means investing in growth companies and fundamental growth that is the hallmark of the beginning of new eras and stages in industries and in markets. Our task, which has been our focus for more than 50 years, is to identify the winners and losers emerging from change.

Sincerely,

Daniel C. Chung, CFA
Chief Executive Officer
Chief Investment Officer

Brad Neuman, CFA
Senior Vice President
Director of Market Strategy

Annualized Returns as of December 31, 2018 (%)

<table>
<thead>
<tr>
<th>Index</th>
<th>1 Year</th>
<th>3 Years</th>
<th>5 Years</th>
<th>10 Years</th>
<th>Cumulative Returns 10 Years</th>
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<td>5.95</td>
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</tbody>
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1 According to Russell, most institutional equity products are benchmarked to a style index and, of those, 99% use Russell indices. In total, approximately $9 trillion is benchmarked to Russell Indices. For each base index (the Russell 1000 and Russell 2000, and Russell Microcap), a composite value score is used to weight stocks in the style indices. Price-to-book value makes up 50% of that score. The other 50% is comprised of the I/B/E/S forecast medium-term growth (2 year) and sales per share historical growth (5 year) statistics.


3 Based on GDP data from the U.S. Bureau of Economic Analysis for the 5-year period from 2012 to 2017 and the 10-year period from 1997 to 2007.