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FINDING OPPORTUNITIES IN AN ERA OF RAPID CHANGE

EXECUTIVE SUMMARY

- Key global industries are being disrupted from many factors, including technological innovation, changing consumer preferences, and political or regulatory initiatives. Growth investors need to understand these disruptions and seek to position themselves on the right side of them.
- Disruptive change may produce extreme but sustainable performance gains for winners, especially if innovation and consumer demand converge in blockbuster products that transform existing markets.
- Successful growth investing in an era of disruption requires both conviction and prudence. Investors unwilling to take significant positions in their best ideas risk missing out on extreme performance outcomes, but careful management of overall portfolio risk also is essential.
- Strong research skills are critical to identifying disruption's winners and losers. A portfolio structure that allows investors to compare opportunities across geographic regions can leverage the ability of fundamental stock picking to add value.

Disruption—the idea that markets are in a constant state of flux, as new technologies or business models rise to challenge established ones—has become something of a Silicon Valley cliché. Yet the term still conveys a wider truth for investors: Being on the right side of change potentially brings great rewards.

Unfortunately, that same truth applies in reverse: Being on the wrong end of disruptive change can be an expensive investment mistake.

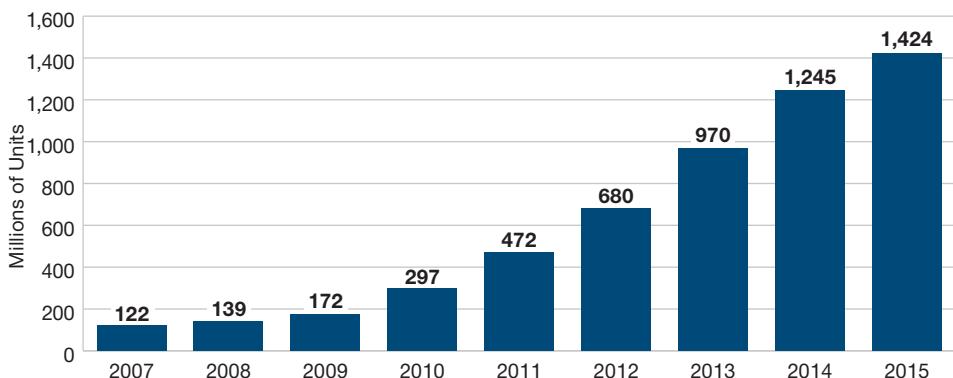
The theory of disruption is rooted in the work of the Austrian economist Joseph Schumpeter, who argued that market dislocations and business failures are both part of a process of

“creative destruction” that is essential for economic growth. Innovation creates winners and losers, and rapidly shifting capital and other resources from fading enterprises to growing ones is essential if the benefits of innovation are to be shared widely.

For investors, being on the “creative” side instead of the “destructive” side of that process has never been more important than today. The waves of disruption washing through the global economy and society are unprecedented, both in size and in speed. And they are coming from multiple directions: technology, health care, politics, popular culture, economic policy, and regulation.

FIGURE 1: Extreme Disruption: The Smartphone Revolution

Annual Global Smartphone Sales to End Users



Source: Gartner Inc.

Investors have to be aware of how disruption ripples through society and the economy. Labor dislocation, innovative drug pricing, changes in energy technology, and shifts in manufacturing are just a few examples of major changes in industry organization that should be considered. The more concentrated the benefits of change are for the winners, the greater the impact will be on the losers. Popular backlash against change can have costly political consequences, such as the recent decision by British voters to exit the European Union. So investors need to understand that economic disruption can produce political disruption—and vice versa.

Those questions are particularly urgent at a time when we continue to face excess capacity and debt in the global economy, leading to persistent fears of deflation and stubbornly low interest rates. Some of our greatest innovations are contributing to falling prices and idle capacity. Distinguishing between stagnation and innovation becomes almost impossible from a top-down perspective, at least in the short run.

Given the economic backdrop, it's not surprising that low growth and accelerating disruption are spurring populism and protectionism in many countries. Investors need to have a broad understanding of how policymakers could respond to these political

pressures in the short run, as well as an appreciation of the enduring changes that are likely to prevail in the long run.

CAPTURING EXTREME OUTCOMES

Disruption often has a winner-take-all dynamic, with a handful of early movers grabbing the lion's share of the benefits. It can also be explosively fast, especially if technological innovation and enthusiastic consumer demand pave the way for blockbuster products that quickly transform an existing market.

A classic example: the convergence of wireless broadband and computing that made the smartphone possible (Figure 1, above). The device almost instantly transformed mobile communications, first for business users and then for consumers. Mass smartphone adoption, in turn, enabled innovators to develop a host of spinoff products and services, from tablet computers to ridesharing apps.

The vital lesson for investors is that extreme outcomes do happen. Explosive revenue and earnings growth—plus higher valuations as the market recognizes future growth potential—can generate rapid but *sustainable* price gains. When paradigms shift, markets tend to underestimate the long-term outcomes and focus too heavily on short-term valuation metrics. In many cases, investors simply do not understand the scale of the opportunities disruption

has created. Hard work and skill are necessary to see the future, assess it correctly, and have conviction in the analysis.

EXAMPLES OF DISRUPTIVE CHANGE

As noted previously, global capitalism, and its equity markets, are being buffeted by change from many directions. The effects are visible in a number of key industries, not just information technology (IT). As was true for the smartphone, supply and demand shifts can reinforce each other powerfully, creating the potential for similarly extreme performance outcomes. Some examples:

■ **Web-based data services:** The ability to deliver enterprise and consumer applications over the Internet has created booming markets for cloud hosting, software by subscription, interface design, and other services and is encouraging even larger companies to outsource their data operations. Potential winners include large online retailers or consumer technology companies that can leverage their own data platforms to serve the outsourcing market. Potential losers include older providers of hardware, software, or system integration services for in-house corporate IT departments.

■ **On-demand video:** Streaming Web delivery has enabled on-demand services to challenge traditional cable in both the delivery and production of entertainment content. For consumers, this means greater choice and flexibility. For cable providers, it undermines the bundled channel package and the revenue streams tied to it. Potential winners include on-demand services that have achieved global scale and can use intensive viewer analytics to identify niche audiences. Potential losers include cable providers or content producers that rely on bundled channels for significant revenues.

■ **Electric cars:** The automotive industry is at the intersection of a convergence of technologies, including electric drive trains, battery capacity, autonomous software (i.e., self-driving cars), and mobile broadband. High-end car buyers are eager for these technologies, but established automakers are making only halting progress in bringing them to market. Potential winners: startups or existing tech companies that can use the luxury market to scale up production of electric and/or self-driving cars, then leverage that platform to penetrate the mass market. Potential losers: established U.S. automakers and their foreign counterparts.

■ **Pharmaceuticals:** The mapping of the human genome and accelerated inflows of venture capital into biotechnology research have led to exciting advances in the health sciences. However, media coverage has fueled hostility to patent “roll up” strategies, in which companies acquire the rights to existing drugs and then raise prices, possibly leading to political or regulatory backlash. Potential winners: stable biotech firms developing promising therapies and some larger diversified pharmaceutical companies with profitable drugs that are still under patent. Potential losers: firms relying on patent roll-ups and/or acquisition deals to generate revenue growth.

■ **U.S. banking:** In the aftermath of the 2008 financial crisis, U.S. financial regulators have kept large banks—those of “systemic significance”—on a tighter leash, requiring higher capital ratios, limiting dividend increases and share buybacks, and discouraging acquisitions. However, with bank balance sheets much improved, the regulatory climate is shifting. Capacity is finally exiting the industry as some global players shrink and exit specific business lines. A handful of strong players are gaining share in higher return areas. Ultimately, improved

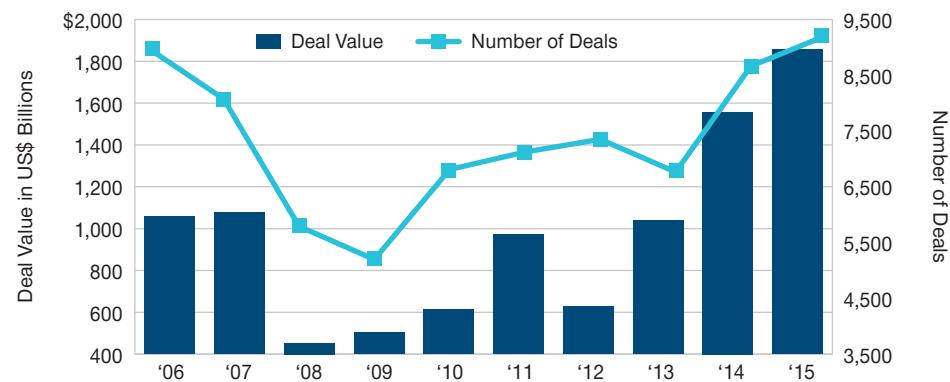
An Urge to Merge

The immediate investment implications of change aren’t always what a simplistic analysis would predict. Threatened losers may slash costs and/or pursue mergers that reduce capacity, boosting profitability and sending share prices sharply higher. This imperative, plus low financing costs, has propelled a surge in merger and acquisition deals since the global financial crisis (Figure 2, below).

The 2015 merger of two of the world’s largest brewing companies, for example, was greeted positively by the market, even though both companies faced stagnant demand, in part because of a shift in consumer preference toward craft beers. Investors who had simply bet against the incumbents in that scenario were left badly wrong-footed.

FIGURE 2: Disruption Spurs an Era of Mega Mergers

U.S. Merger and Acquisition Deals and Deal Value



Source: FactSet; data analysis by T. Rowe Price.

returns on capital are likely to drive these stocks higher. Potential winners: major global banks with strong leadership that can gain share in key end markets and return capital to shareholders. Potential losers: banks that have responded to regulatory pressures and sluggish growth with poor strategies, management churn, and a lack of focus on core competencies.

COMBINING CONVICTION AND PRUDENCE

For growth investors, the days of “one decision” investing—buying reliable growth companies with durable, entrenched franchises and holding them for years—are gone, probably for good. Understanding the factors driving change, identifying the winners and losers, recognizing when to take sizable

positions, and determining when the risks outweigh the potential benefits are all complex ongoing challenges.

Successfully navigating these currents requires a combination of high conviction and prudent attention to risk. Conviction, because investors unwilling to take significant positions in their best ideas are more likely to miss out on the extreme performance outcomes experienced by the winners while capturing the underperformance of the much larger number of losers. Prudence, because concentrated positions create risk, which must be matched with careful management of overall portfolio risk factors. Valuation entry points become especially important, so investors need the stomach to add to their best ideas when market conditions are volatile.

Finally, we believe the ferocious pace of change makes a strong argument for greater exposure to global markets. Some sources of disruption—like technology—have no respect for borders, while others (political developments, regulatory responses) may be national or even local. Comparing companies across geographic regions may reveal hidden opportunities, provide access to segmented markets (like China's Internet sector), or otherwise leverage the ability of fundamental stock picking to add value.

BACKING INSIGHTS WITH KNOWLEDGE

Change can be creative or destructive, and in a market economy it can be both at the same time. Disruption can also be highly selective: Firms within the same industry, or even divisions within the same company, may be on different sides of change, for better or for worse.

In this environment, what distinguishes intelligent investment decisions from “story stocks” is research: the ability to quantify change, fully understand its dimensions, and correctly identify the stocks most likely to benefit from it. This requires a granular understanding of individual companies—their business models, strategic focus, product capabilities, management teams, and a host of other factors.

With more than 45 years of experience investing in international markets, T. Rowe Price has the experience, resources, and capabilities to invest in an era of extreme disruption. Our research process provides in-depth coverage across both major axes of the international equity markets: geographic and sectoral. Our fundamental equity analysts currently cover nearly 2,300 global companies, representing more than 62% of the total global public market.¹

This knowledge base allows our analysts and portfolio managers to analyze companies from both regional and industry perspectives, which are both critical dimensions when assessing the impact of change and identifying potential portfolio opportunities. We believe these capabilities will serve our clients well in an era when economic and social disruption show no signs of slowing.

¹As of December 31, 2015.

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