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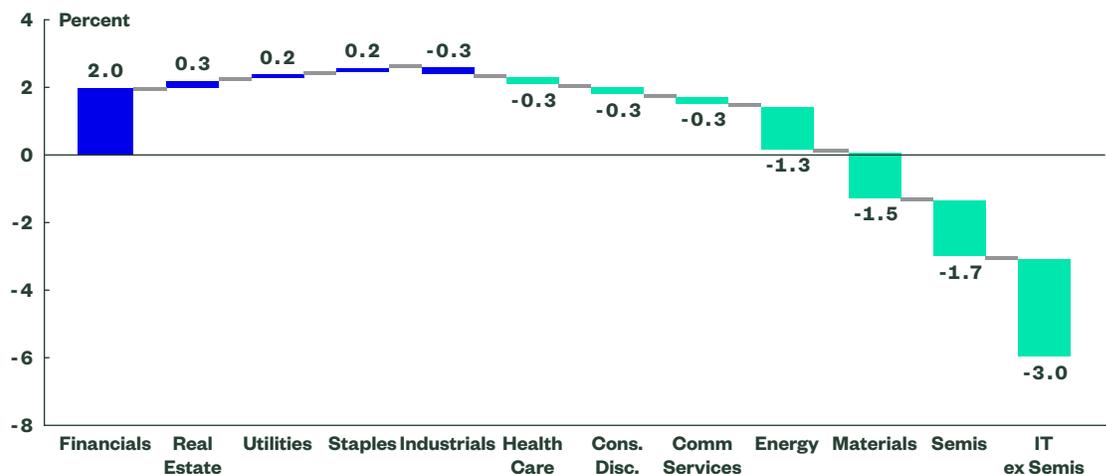
# Why We're Going Positive on Semiconductor Manufacturers in Emerging Markets

- Semiconductor manufacturers continue to be undervalued, even as earnings fundamentals improved in the third quarter.
- In the shorter term, semiconductors stand to benefit from rising consumer demand for devices, which is likely to be further fueled by the arrival of 5G technology.
- Over the longer term, demand for artificial intelligence-enabled applications will likely create a strong tailwind for the industry.

2019 has been a pretty tough year for corporate earnings in emerging markets. Many sectors managed to eke out a positive profit story, but in aggregate this year's earnings are likely to be down 2% to 7%. Semiconductors and other tech hardware firms have been a big part of the decline (see Figure 1).

Figure 1  
**Global Semiconductor Earnings Have Declined During 2019**  
2019 Global EPS Forecasts, by Industry

■ Increase  
■ Decrease

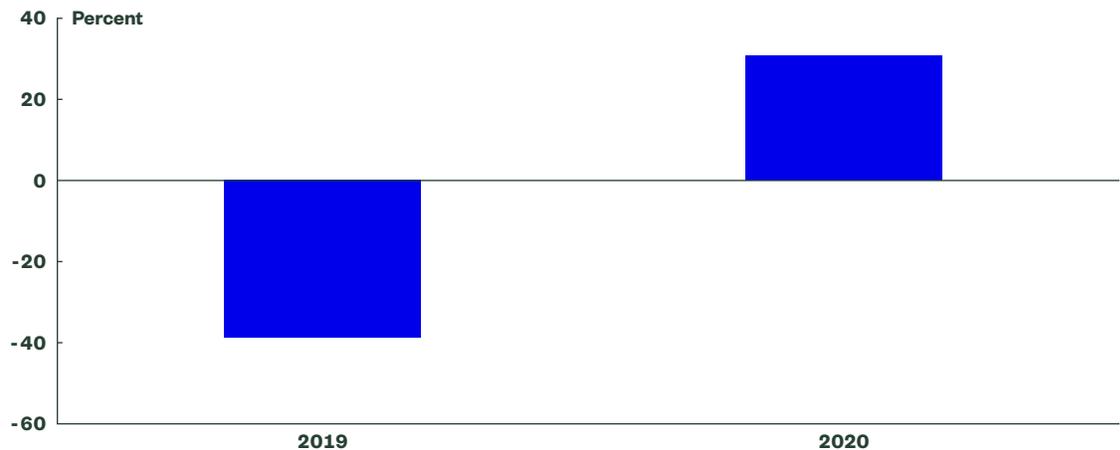


Source: JP Morgan, MSCI, Bloomberg, as of November 2019.

The trade trauma and the spat over Huawei have been headwinds this year, but the good news is that the bad news now seems to be mostly in the past. 2020 is setting up for a nice earnings recovery for both emerging markets (EM) semiconductors and for EM equities in general. Next-twelve-month consensus estimates anticipate earnings-per-share (EPS) improvement of 31% for semiconductors and a 14% uptick in EPS for EM equities as a whole (see Figure 2).<sup>1</sup> Making the right call on semiconductors will be important for investors next year, as they consider individual stocks and as they look at the asset class more broadly.

Figure 2  
**Emerging Markets  
Semiconductor  
Earnings Are  
Expected to Grow  
in 2020**

EPS Growth  
Forecasts for EM  
Semiconductors, 2019  
versus 2020



Source: UBS, MSCI, Bloomberg, as of November 2019.

## Earnings on the Rise

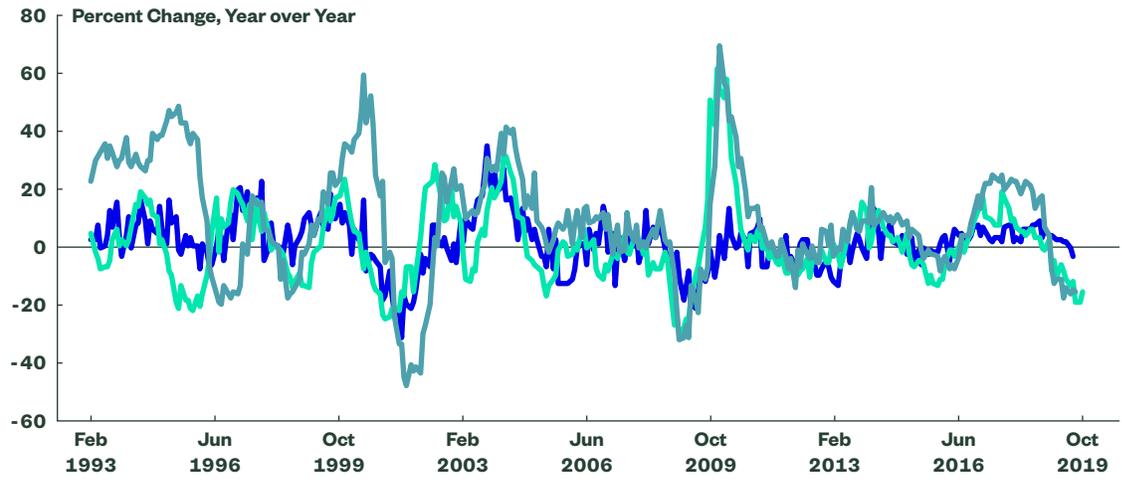
Our investment process is rooted in finding stocks that are attractively priced and show improving fundamentals. Semiconductors fit that bill for us at the moment.

Within our model, semiconductor stocks have historically scored well on valuation metrics. Compared to the large EM internet stocks that tend to offer more glamorous stories for retail investors, chipmakers have consistently offered investors superior cash flows and dividend yields, at a significantly lower cost. Semiconductors continue to be undervalued, but earnings fundamentals started to improve substantially in the third quarter. As a result, one of our largest overweights by industry is in semiconductors.

## Sentiment Measures Pick up on Improving Fundamentals

EM semiconductor companies are clearly linked to demand in developed markets; therefore, a supportive global economy is a precursor to any sustainable improvement in earnings. To this end, there is reason for optimism coming from US Purchasing Manager's Index (PMI) figures, which reached post-GFC lows in September. These figures began to increase October, an encouraging sign to some analysts, as positive PMI movements have historically led global semiconductor sales by three to five months.

Figure 3  
**Developed Market Sentiment Measures Typically Lead Semiconductor Sales Improvement; US PMI Reached Post-GFC Lows in September**  
 US PMI, Global Semiconductor Sales and Global Semiconductor Inventory, 1993–2019



Source: CLSA, as of October 2019.

■ Global Semi Inventory  
 ■ US PMI  
 ■ Global Semi Sales

Apple’s October 30 earnings report, which registered record earnings per share (EPS) for the previous quarter,<sup>2</sup> should help the improvement in PMI figures to endure. Apple’s Q3 earnings call anticipated strong holiday sales in Q4, signs of a recovery in their sales figures in China, and a stronger iPhone growth cycle in 2020. In addition to rising demand from consumer giants, semiconductor firms are set to benefit from the massive computing power needs of the AI industry, which is likely to be a big driver in the years to come.

Our proprietary sentiment measures pick up on these fundamental trends by systematically analyzing earnings and sales forecasts, as well as other metrics such as levels of short interest in EM semiconductors. Better prospects lead to better stock prices, all else being equal. Attractive valuation is the icing on the cake.

## Ahead of the Curve on ESG

We use a range of proprietary metrics to form an ESG-related view of every company in our investment universe. As part of our quality assessment, this ESG-related view helps us to evaluate whether companies are managed effectively and responsibly, with an eye to long-term shareholder and stakeholder returns. Firms that show relatively strong ESG characteristics are more likely to outperform, because they are generally less susceptible to future scandals or other improprieties. Our research has provided solid empirical evidence to support this belief. EM semiconductors tend to screen well on our ESG metrics. This suggests that EM semiconductors are ahead of the curve relative to other stocks in the EM universe on metrics such as carbon emissions, use of renewable energy, and to some extent improving board diversity.

## 5G Technology Creates a Tailwind

As we look forward, it’s reasonable to ask whether the turnaround we anticipate in semiconductors’ growth prospects will be sustainable. We believe it will be.

One strong tailwind for EM semiconductor companies is the arrival and adoption of 5G technology. Apple and Huawei are pushing aggressively to include 5G compatibility on their new 2020 devices. This is very likely to trigger demand for replacement devices as consumers look to benefit from improved streaming capabilities. The longer-term implications for the semiconductor industry are even more encouraging; 5G technology promises to help spread the use of artificial intelligence across a multitude of devices, beyond mobile phones.

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## Risks to the Call

Broad industry calls always include some idiosyncratic elements, but certain industry-wide risks merit particular consideration. A deepening of global trade wars (either between the US and China, or between Japan and South Korea) would create additional earnings pressures. This would cause any anticipated 2020 economic recovery to be pushed out potentially to 2021, further delaying recovery in EM equity markets.

At an industry level, semiconductors constantly are vulnerable to commoditization. One critical aspect of semiconductor manufacturing over the past 50 years has been the ability of the industry to consistently shrink components. As the size of components shrinks, it is becoming increasingly more expensive and technically difficult to stay ahead of low-cost producers.

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## The Bottom Line

Companies in the semiconductor industry currently warrant particular consideration because the industry as a whole is relatively undervalued, even as earnings fundamentals improve. Rising demand for 5G-compatible and AI-enabled technology is likely to further fuel semiconductors' performance. Risks to watch include the potential for intensification in global trade tensions.

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## Endnotes

- 1 Source: UBS, JP Morgan, as of November 2019.
- 2 Source: "Apple Reports Fourth Quarter Results" (October 30, 2019; <https://apple.com/newsroom/2019/10/apple-reports-fourth-quarter-results/>).

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### Marketing Communication.

### Glossary

**5G** 5G is the fifth generation of cellular network technology. The industry association 3GPP defines any system using "5G NR" software as, "5G", a definition that came into general use by late 2018. Others may reserve the term for systems that meet the requirements of the ITU IMT-2020.

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