



Finding Sustainable Growth in Financial Exchanges

Artisan Partners Global Equity Team

ARTISAN PARTNERS
Insights

For Institutional Investors Only—Not for Onward Distribution

Finding Sustainable Growth in Financial Exchanges

The Artisan Partners Global Equity team identifies catalysts for change and develops investment themes with the objective of capitalizing on them by investing in companies having meaningful exposure to these trends. We believe that companies with exposure to powerful secular trends tend to grow earnings faster and can sustain earnings growth longer than the average company.

Our global themes are long term in nature and are balanced with our fundamental analysis. Notable longstanding themes include demographics, technology, the environment, financials services, outsourcing and infrastructure. It's important to note that the application of this thematic approach is dynamic and can lead us to different industries, sectors and regions over time as we anticipate sustainable growth resulting from these thematic shifts. Over the past several years, among our most prominent themes include the emerging markets consumer, health care, electronic payments, e-commerce, insurance and financial exchanges.

Financial exchanges have been and continue to be beneficiaries of the post-financial crisis regulatory push for more transparent on-exchange trading. In contrast to the banks, the exchanges were a source of stability during the global financial crisis, and as a result, the regulatory bodies around the world have promoted greater market transparency via a shift from over-the-counter trading to exchanges.

A second trend has been industry consolidation, which has led to a few large exchanges' becoming regional monopolies that are enjoying pricing power and economies of scale and scope. As "mini-monopolies" approved by regulators, the financial exchanges boast the types of highly visible long-term growth profiles we seek. Importantly, size is a competitive advantage in this industry as network effects drive volumes toward exchanges with the largest liquidity pools. Therefore, we seek the largest exchanges that most benefit from platform economics and the highly consolidated industry structure.

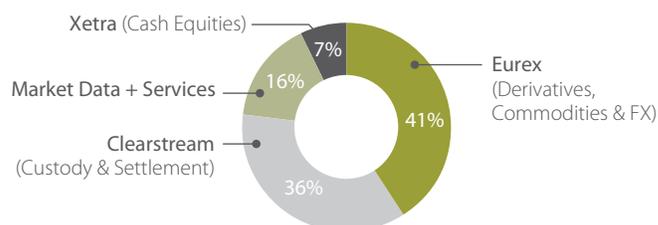
We also like exchanges that have diversified business models because diversification typically contributes to steadier top-line growth. Commonly, they have both trading and non-trading businesses. Non-trading businesses include post-trade services (e.g., clearing, settlement, custody) and market data services. Besides providing diversification benefits, these non-trading businesses are experiencing structural growth in ETF and index products, driving demand for data services and trading. Lastly, the exchange industry is relatively defensive among financials since trading volumes tend to pick up with market volatility, balance sheet risk is substantially lower and operating margins are typically high. Our largest positions in this theme include Deutsche Boerse, Intercontinental Exchange, CME Group and London Stock Exchange.

Deutsche Boerse

Deutsche Boerse is the largest exchanges operator in Europe and owner of Eurex, Europe's largest derivatives trading and clearing platform; Xetra, an electronic-trading platform offering trading in equities and bonds; and Clearstream, one of the largest providers of post-trade settlement and custody services.

Besides ongoing tailwinds from industry M&A and the regulatory push toward on-exchange trading in asset classes such as energy and F/X derivatives, we are attracted to the company's diversified revenue generation across transactional and non-transactional activities. Each of its businesses contributes to the company's organic growth, so no single business determines overall earnings performance. CEO Theodor Weimer, who took over leadership at the beginning of 2018, is focused on growing both organically and through acquisitions. In addition to the structural growth drivers, cyclical headwinds are turning to tailwinds with the reemergence of market volatility—spurred by trade-related headlines and preoccupation with central bank policies—that can drive increased transactions volumes.

Exhibit 1: Deutsche Boerse—Diversified Revenue Streams



Source: Company reports/Artisan Estimates.

London Stock Exchange Group

London Stock Exchange (LSE) is one of the largest market infrastructure groups operating globally. The company's largest business segments are information service, post trade services and capital markets. The information services segment comprises FTSE Russell (one of the top three financial index providers globally) and real-time data generated by LSE's trading venues and distributed through vendors such as Bloomberg and Thomson Reuters. Post-trade services provides clearing services in a wide range of asset classes and is the largest clearer of OTC interest rate and F/X derivatives. The capital markets business involves the operation of a number of listing/trading venues, including London Stock Exchange; Borse Italiana; MTS, a European fixed income platform; and Turquoise, a pan-European equities multilateral trading facility.

LSE benefits from two large businesses occupying leadership positions in sectors with strong secular growth: post-trade services and FTSE Russell. About 75% of post trade is LCH, the second-largest clearing

house worldwide. Banks are clearing more trades to reduce capital consumption, and regulation is forcing the clearing of OTC trades. LCH has a quasi-monopoly on the clearing of interest-rate swaps worldwide—the largest market globally for interest-rate derivatives. We anticipate LCH should grow at a mid-double-digits cumulative average growth rate. FTSE Russell, one of the largest index providers, generates fees from licensing its indices to passive asset managers—an industry that continues to take share from traditional active managers. We believe FTSE Russell should continue to exploit economies of scale and scope while capitalizing on new areas of growth and product innovation to grow at a mid-double-digits CAGR. We look for the faster-growth LCH and FTSE Russell businesses to drive a high single-digits top-line CAGR and mid-double digits growth rate in earnings per share for the overall company. Lastly, M&A optionality remains following the failed merger with Deutsche Boerse.

Intercontinental Exchange

Intercontinental Exchange (ICE) is the third largest exchange group in the world operating regulated exchanges, clearing houses and listings venues for commodities, financial, fixed income and equity markets globally. Since its founding in 2000, ICE has been a leader in commodities trading. Growing both organically and via strategic acquisitions, including its 2013 purchase of NYSE Euronext, the trading group has greatly expanded and diversified into trading of other asset classes and into non-transactional businesses, including market data.

ICE and CME are our preferred US exchanges, given their superior business mix and dominant positions in derivatives. With respect to ICE, we are attracted to its core organic growth in the consolidated exchange industry, high margins (>50%), structural growth in its market-data business and well-respected management team. We believe the company can deliver double-digit earnings growth over the next few years, underpinned by its data business (~50% of revenues) that is growing at a mid-to-high single-digit rate. As well, growth in the more stable areas of market data and listing fees reduces dependence on

market volumes. Further, management has a strong track record having shown itself to be proactive and nimble with acquisitions contributing to growth during slow macro environments.

CME Group

CME Group operates contract markets for the trading of futures and options worldwide. It offers a range of products across various asset classes, including futures and options based on interest rates, equity indexes, foreign exchange, energy, agricultural commodities and metals, as well as fixed income products.

CME has a dominant position as a derivatives exchange platform (thanks partly to past acquisitions, including CBOT in 2007 and NYMEX in 2008) with the benefits of scale and network effects (i.e., the liquidity pool draws in more liquidity). The strength of its derivatives franchises is evidenced by its high margins. Additionally, the futures trading business is somewhat insulated from competition since futures positions need to be opened and closed on the same exchange, thereby acting as a clearinghouse. Also, CME's proprietary products (e.g., WTI contract, energy derivatives) face less competition than products listed on multiple exchanges such as cash equity and options. Importantly, the company generates robust free cash flow and has a strong record of returning capital to shareholders via dividends. Growth opportunities include international expansion and the continued shift to exchange-traded futures that are typically more standardized and liquid. Finally, although market data is only about 10% of revenue, CME is aiming to ramp growth in this area. CME is also integrating its 2018 acquisition of NEX Group that combined complementary businesses in Treasury trading/interest rate derivatives, F/X derivatives and post-trade with clearing services, provided increased international exposure and offered potential cost savings.

<i> Holding </i>	<i> Description </i>	<i> Non-U.S. Growth Strategy </i>	<i> Global Equity Strategy </i>
Deutsche Boerse	The largest exchanges operator in Europe and owner of Eurex, Europe's largest derivatives trading and clearing platform.	●	●
London Stock Exchange Group	The eponymous owner of Europe's largest stock exchange, the London Stock Exchange, is one of the largest market infrastructure groups. The information services segment comprises FTSE Russell, one of the top three financial index providers globally.	●	●
Intercontinental Exchange	The third largest exchange group in the world, operating regulated exchanges, clearing houses and listings venues for commodities, financial, fixed income and equity markets globally.	●	●
CME Group	A leading derivatives exchange that handles more than 90% of US futures trading.		●

Artisan Partners Global Equity Team



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Portfolio Manager



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Portfolio Manager



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Seasoned Leadership, Continuity of Decision Makers, Global Perspectives

Experienced & Deep Investment Team

Artisan Partners Global Equity Team has been investing in international markets at Artisan Partners for the past two decades. Across its investment strategies, the team applies the same investment philosophy and process first established by team founder Mark Yockey in 1995. The team seeks industry-leading companies trading at sensible valuations with the competitive advantages necessary to sustain earnings growth over the long term.

The team's portfolios leverage a deep and highly experienced team of research analysts led by three seasoned portfolio managers. All team members have significant experience within their sectors or regions of expertise and travel frequently to research investment opportunities. Company visits are a key component of the team's process, providing an opportunity to develop an understanding of a company, its management and its current and future strategic plans.

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International investments involve special risks, including currency fluctuation, lower liquidity, different accounting methods and economic and political systems, and higher transaction costs. These risks typically are greater in emerging markets. Securities of small- and medium-sized companies tend to have a shorter history of operations, be more volatile and less liquid and may have underperformed securities of large companies during some periods. Growth securities may underperform other asset types during a given period. Investments will rise and fall with market fluctuations and investor capital is at risk. Investors investing in strategies denominated in non-local currency should be aware of the risk of currency exchange fluctuations that may cause a loss of principal. These risks, among others, are further described in Artisan Partners Form ADV, which is available upon request.

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For the purpose of determining portfolio holdings, securities of the same issuer are aggregated to determine the weight in the portfolio. The holdings mentioned above comprise the following percentages of a representative account within the Composite's total net assets as of 30 Jun 2019: Artisan Non-U.S. Growth Strategy—Deutsche Boerse AG 5.8%; Intercontinental Exchange Inc 1.1%; London Stock Exchange Group PLC 1.8%. Artisan Global Equity Strategy—Deutsche Boerse AG 4.4%; Intercontinental Exchange Inc 3.2%; CME Group Inc 0.5%; London Stock Exchange Group PLC 1.4%. The discussion of portfolio holdings does not constitute a recommendation of any individual security.

Free Cash Flow is a measure of financial performance calculated as operating cash flow minus capital expenditures. **Compound Annual Growth Rate (CAGR)** is the year-over-year average growth rate of an investment over a period of time. It is calculated by taking the n th root of the total percentage growth rate, where n is the number of years in the period being considered.

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