STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

Ladi Williams, Product Manager, and Anand Venkataraman, CFA, Head of Product Management, STOXX Ltd.





STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

TABLE OF CONTENTS

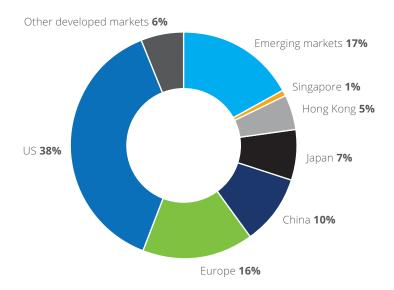
INTRODUCTION	3
DIVERSIFICATION	4
COUNTRY PROFILE	4
INDUSTRY EXPOSURES	6
ACCESSIBILITY	8
LIQUIDITY	8
TRADABILITY	9
FUNDAMENTALS	12
DIVIDEND YIELDS	12
VALUATIONS	13
PERFORMANCE	14
CONCLUSION	15

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

INTRODUCTION

Europe accounts for approximately 25% of global output¹ and about 16% of the total global equity market capitalization of USD 85 trillion (Figure 1). As a result, the region has an important place in almost all strategic and tactical equity allocations by global/overseas investors. Research shows clear signs of a reduced home bias in equities over the last 10 years, with average domestic allocations falling from 68.7% in 1998 to 40.2% in 2018². STOXX offers efficient and effective access to the European equity market for overseas investors seeking to diversify their portfolios and invest outside their domestic markets thanks to its comprehensive range of investment vehicles based on market-leading indices such as the STOXX® Europe 600, EURO STOXX® and EURO STOXX 50®.

FIGURE 1: Global equity market capitalization



Source: SIFMA - 2019 Outlook | Trends in the Capital Markets

The STOXX® Europe 600 Index is a broad but tradable benchmark for the European equity market. Its comprehensive coverage offers diversified country and industry allocation, replicating the underlying total market. The index captures a good portion of mid- and small cap securities and hence the relative outperformance provided by these securities. The EURO STOXX® Index is the euro-denominated subset of the STOXX® Europe 600 Index that represents nearly 93% of the free-float market capitalization for the euro-denominated total market index. The iconic EURO STOXX 50® Index provides diversified access to the largest supersector leaders within the Eurozone. In this paper, we offer insights into how the three STOXX European flagship indices compares with a few regional domestic benchmarks for overseas equity investors, in some typical characteristics they may consider in their evaluation process.

¹ IMF World Economic Outlook Database, October 2019 data

 $^{^{2}}$ Thinking Ahead Institute: Global Pensions Assets Study – 2018

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

DIVERSIFICATION

In this section, we shall look at the diversification that the three STOXX indices offer, both at the country and the sector level.

COUNTRY PROFILE

The European equity market is highly capitalized; it has a free-float market cap of EUR 9.7 trillion³ and spans 26 countries within STOXX's coverage universe. It offers overseas investors who wish to express a broad interest in the region, a range of capital allocation opportunities. Since Western Europe accounts for 96% of the region's total market cap as measured by the STOXX® Europe Total Market Index, this geographical segment presents a compelling and inclusive investment opportunity.

FIGURE 2: European STOXX indices - Market coverage



Source: STOXX Ltd. (as of Sep. 30, 2019)

Launched in 1998, the STOXX® Europe 600 Index provides exposure to the 600 largest companies in the narrower subset of 17 European countries that have been classified as developed⁴. At present, this list comprises Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland and the United Kingdom. With a market cap of EUR 8.5 trillion, the STOXX® Europe 600 Index currently accounts for 91% of the broader region's total market cap as represented by the STOXX® Europe Total Market Index. Country classification for the STOXX® Europe 600 Index is based on a STOXX model that uses a rules-based methodology. Factors taken into consideration include macroeconomic data, market capitalization, market liquidity, currency convertibility, restrictions on capital flows and governance.

³ Source: STOXX All Europe Total Market Index (TMI), as of Sep. 30, 2019

 $^{^4 \} https://www.stoxx.com/documents/stoxxnet/Documents/Resources/Methodology/Country_Classification/stoxx_regional_classification_20190923.pdf$

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS



FIGURE 3: STOXX developed markets – European country coverage

Source: STOXX Ltd.

The United Kingdom contributes the most listed companies to the STOXX® Europe 600 Index, representing just over one-quarter of its total market cap (Figure 4). Unsurprisingly, country allocations have changed over time, with new entrants such as Poland, which was admitted in September 2018, and the exclusion of Greece in August 2016.

In light of the continuing uncertainty surrounding Brexit and its impact on UK stocks and the GBP, overseas investors may prefer to eliminate their exposure to GBP and other regional currencies to minimize FX volatility, whilst still reaping the diversification benefits that Europe has to offer. The EURO STOXX® Index offers a solution here that allows overseas investors exposure to just the euro currency. Like other indices, this index is additionally offered as a currency hedged variant that, depending on their views, almost completely eliminates currency risk for overseas investors. The EURO STOXX® Index currently comprises large, mid- and small cap stocks from a total of 11 Eurozone countries: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. With over 300 stocks (as of Sep. 30, 2019), it captures around 93% of the Eurozone's free float market capitalization (as represented by the EURO STOXX® Total Market Index), offering representation across a variety of Eurozone countries and hence providing diversification.

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

The EURO STOXX 50® Index is an iconic blue-chip gauge comprising the Eurozone's largest 50 stocks (the supersector leaders). As such, it is a subset of the EURO STOXX® Index, currently including qualifying stocks from eight countries: Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands and Spain. Its components represent around EUR 2.6 trillion in market capitalization, or approximately 60% of the Eurozone's total stock market capitalization as measured by the broader parent index (as of Sep. 30, 2019). France and Germany have the largest allocations in the index, with weights of 39% and 31% respectively (Figure 4).

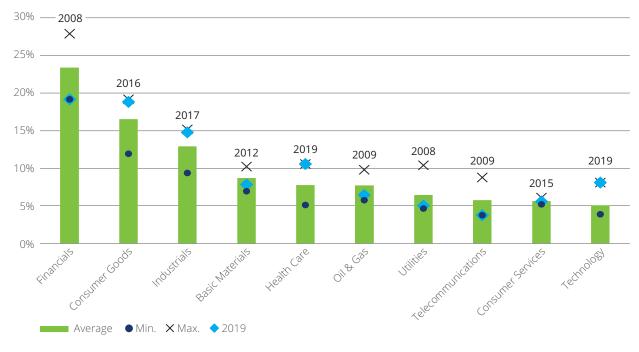
FIGURE 4: Country weights across STOXX European flagship indices UK France France Germany Switzerland Germany Netherlands Netherlands Spain Spain Sweden Italy Italy Denmark Belgium Belgium Finland Finland Norway Ireland Ireland Austria Poland Austria Portugal Portugal Luxembourg Luxembourg 0% 10% 20% 30% 0% 20% 40% 60% ■ STOXX® Europe 600 ■ EURO STOXX 50[®] ■ FURO STOXX® Source: STOXX Ltd. (as of Sep. 30, 2019)

INDUSTRY EXPOSURES

All three STOXX indices – the STOXX® Europe 600, the EURO STOXX® and the EURO STOXX 50® – are well diversified in terms of industry exposures. Financials and Consumer Goods lead the way, accounting for an aggregate of more than 35% of each index. Like country weights, the historical industry composition has also changed over time, with the allocation to Financials decreasing significantly from highs of 28% (average across the three indices) prior to the onset of the global financial crisis to the current allocation of 19% (Figure 5). Conversely, both the Health Care and Technology sectors have seen steady increases over the same observation period and are currently at historical highs.

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

FIGURE 5: Evolution of ICB sector weights over time (data points are averages across STOXX® Europe 600, EURO STOXX® and EURO STOXX 50®)



Source: STOXX Ltd.

The industry allocations represented by these indices offer significant diversification benefits in relation to selected regional markets, and in many instances allow overseas investors to make tactical and strategic sector plays on the back of relatively concentrated home market exposures. For instance, with a weight of 21% the S&P 500 has a comparatively large allocation to Information Technology stocks, in contrast to the STOXX European indices where the figure is between 5% and 9%. The Straits Times Index has zero exposure to Energy, Health Care, Materials and Utility stocks, categories that account for 4% –13% of the STOXX European indices. Additionally, the Straits Times Index, the Hang Seng and the S&P/ASX 200 have a sizeable allocation to Financials, which accounts for over 25% of each index (Figure 6).

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

FIGURE 6: Sector allocations for various regional indices, converted to the Global Industry Classification Standard (GICS) for comparison. Darker shades of green represent comparatively larger sector concentrations for specific indices relative to their counterparts.

	Europe			Americas	Americas Asia Pacific				
GICS sectors	STOXX® Europe 600	EURO STOXX®	EURO STOXX50®	S&P 500	S&P/TSX	TOPIX	Straits Times	S&P/ASX 200	Hang Seng
Consumer Discretionary	12.9%	18.4%	19.7%	10.0%	4.8%	19.5%	4.3%	6.1%	3.5%
Consumer Staples	14.0%	12.1%	15.1%	7.8%	5.1%	8.8%	10.9%	5.0%	1.6%
Energy	6.3%	4.6%	5.4%	4.1%	15.3%	0.8%	0.0%	4.9%	11.1%
Financials	16.5%	14.7%	14.3%	12.8%	31.5%	10.0%	30.0%	26.4%	46.5%
Health Care	12.5%	7.7%	6.9%	12.8%	1.4%	8.5%	0.0%	9.8%	1.2%
Industrials	13.6%	14.1%	12.3%	9.0%	11.4%	20.6%	28.4%	7.6%	4.0%
Information Technology	5.1%	7.6%	8.9%	21.1%	4.8%	11.7%	0.8%	2.4%	0.8%
Materials	7.9%	6.9%	7.3%	2.5%	10.4%	6.1%	0.0%	23.6%	0.0%
Real Estate	1.9%	2.3%	0.0%	2.8%	4.3%	2.6%	15.4%	8.1%	9.2%
Communication Services	4.7%	5.0%	5.2%	13.9%	5.4%	10.1%	10.2%	4.4%	19.1%
Utilities	4.6%	6.6%	4.8%	3.1%	5.5%	1.4%	0.0%	1.7%	3.0%

Source: STOXX Ltd., Bloomberg (as of Sep. 30, 2019)

Energy stocks are poorly represented in Japan's TOPIX Index, where they account for less than 1%, whereas they have exposures of between 4.6% and 6.3% in the three STOXX European indices.

ACCESSIBILITY

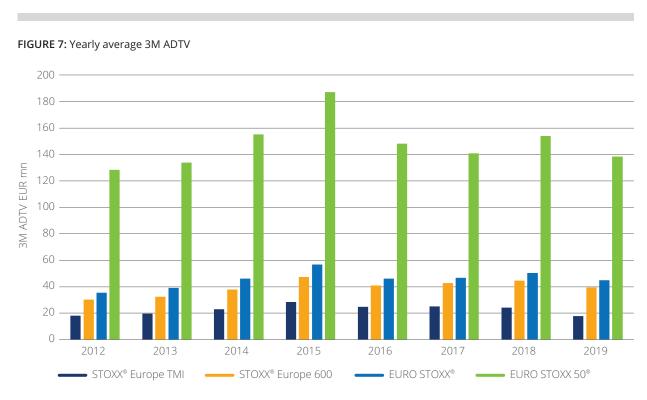
We look at the liquidity profile of the index and its tradability while evaluating accessibility to the three indices.

LIQUIDITY

Equity markets typically display a positive correlation between company size and the liquidity or turnover of the company's shares. The addition of a minimum liquidity threshold for inclusion of stocks in the STOXX® Europe 600 and consequently that of the EURO STOXX® and EURO STOXX 50® indices, which are derived from it, significantly improves the liquidity profile of these indices relative to the broader STOXX® Europe Total Market Index (Figure 7). Typically, the following liquidity criteria are applied:

- » For each company only the most liquid stock is considered
- » Stocks must have a minimum liquidity of greater than one million EUR measured by 3-month average daily trading value (ADTV)

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS



Source: STOXX Ltd., Bloomberg

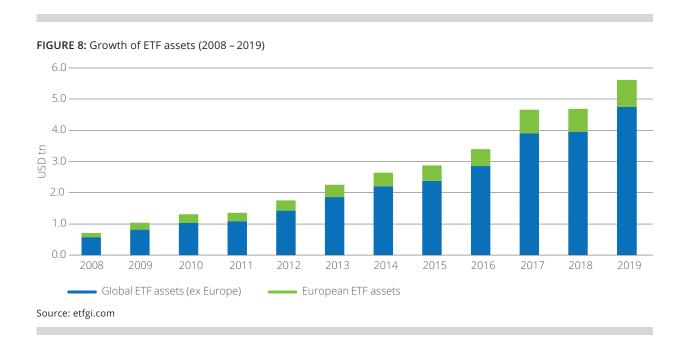
TRADABILITY

There is a range of investment vehicles such as Exchange-Traded Funds (ETFs), exchange-traded derivatives (futures & options) linked to the three STOXX European Indices. These investment vehicles provide accessibility and tradability to the European markets and thus widen their appeal to overseas investors.

ETFs

ETFs provide broad market access through a single trade at a comparatively lower cost than other strategies. The rise of passive investing has seen these vehicles increase in popularity over the years with an estimated USD 5.6 trillion of assets invested in the Global ETF industry. There are over 1,700 European listed ETFs that currently account for USD 870 billion of this total, which represents a CAGR of 14.4% within the last 10 years (Figure 8). Equity funds, unsurprisingly hold the majority of the assets, followed by bond funds.

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS



The first ETF launched on the STOXX® Europe 600 was in June 1998, which also marked STOXX's first related ETF product. Since then, the total assets tracking the index and its variants has grown to over EUR 18 billion (Figure 9). In 2000, the first ETF products to track the EURO STOXX® and the EURO STOXX 50® index were launched and these indices along with their variants have since amassed over EUR 40 billion in assets under management (AUM). There is now more than EUR 60 billion in AUM across 200 ETF products tracking STOXX European based indices.

FIGURE 9: ETF AUM across EURO STOXX 50®, STOXX® Europe 600, EURO STOXX® and other European based STOXX indices⁵

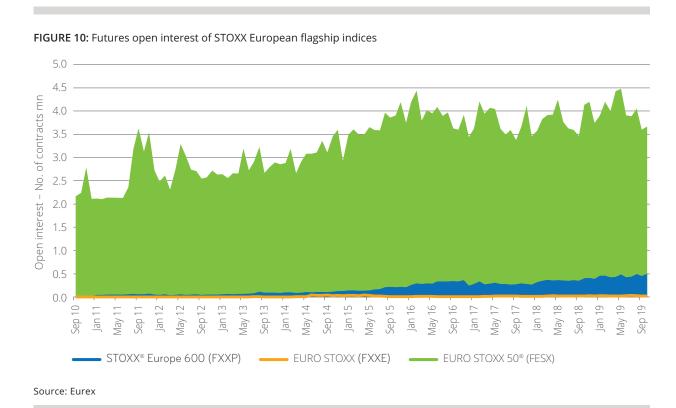
	AUM EUR mn	% total index assets	% total regional assets
STOXX® Europe 600 & Variants	18,178		
STOXX® Europe 600	10,401	57%	16%
STOXX® Europe 600 Oil & Gas	985		
STOXX® Europe 600 Health Care	967		
STOXX® Europe 600 Banks	920		
EURO STOXX® & Variants	7,041		
EURO STOXX®	1,844	26%	3%
EURO STOXX® Select Dividend 30	1,929		
EURO STOXX® Banks 30 –15	1,089		
EURO STOXX® Small	551		
EURO STOXX 50® & Variants	33,890		
EURO STOXX 50®	32,823	97%	52%
EURO STOXX 50® Daily Short	665		
EURO STOXX 50® Daily Leverage	114		
EURO STOXX 50® Daily Double Short	106		
Europe based other	4,275		
STOXX® Europe 50	1,294		
STOXX® Europe Select Dividend 30	888		
STOXX® Europe Small 200	450		
	63,383		

⁵ Only top 3 variants of each index are shown. Source: STOXX Ltd., Lipper (as of Sep. 30, 2019)

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

Exchange-traded derivatives

Futures and options on the EURO STOXX 50® index, traded on Eurex, are among the most liquid of such products in Europe and the world. Eurex lists futures and options on all 19 EURO STOXX®/STOXX® Europe 600 ICB sectors, providing investors direct access to European economic sectors, most importantly banks, insurance, and oil & gas. As evident from Figure 10, trading futures (and options, although not shown in the figure) on this index family is proving increasingly popular with investors looking for a benchmark with a broader European representation.



The considerable growth of ESG investing has created demand for sophisticated or diversified index concepts that incorporate sustainability measures to existing benchmarks, ETFs and derivatives to versions that reflect these sustainability factors. Europe is at the forefront of this trend, accounting for nearly half of total global assets managed under sustainable investment strategies with USD 14 trillion⁶. To address this increasing demand, this year marked the launch of both ETFs and derivatives contracts on the ESG versions of the STOXX® Europe 600 and EURO STOXX 50®. Overseas investors are now presented with a range of solutions to help achieve their ESG objectives.

⁶ Source: Global Sustainable Investment Review 2018, 2016 and 2014

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

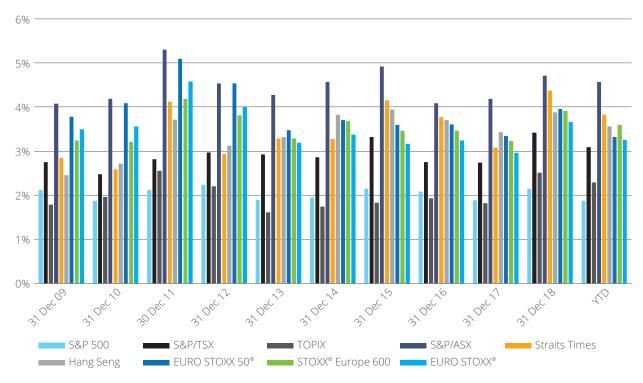
FUNDAMENTALS

Although we understand that there may be many other different (distinct or combination of) metrics, for the sake of simplicity we consider dividend yields from an income perspective, and price/earnings (P/E) ratio to assess the valuation of the indices.

DIVIDEND YIELDS

Given the prevailing economic environment of very low interest rates, stock dividends are often looked at to provide an additional source of portfolio returns and income. The STOXX European indices at present offer dividend yields between 3.3% – 3.6% and have collectively averaged 3.7% over the last 10 years on a trailing basis. This presents an attractive investment opportunity (from an income perspective), in particular for Canadian and American investors where their domestic equity markets as measured by the S&P/TSX and S&P 500 have offered 2.9% and 2.0% respectively on average over the same investment horizon. Asian markets are more heterogenous with respect to dividend yields, Japanese investors over the same time period have averaged dividend yields of 2% whereas its regional counterparts have seen yields on average in the range of 3.5% – 4.6%.

FIGURE 11: Dividend yields on offer across regional indices



Source: STOXX Ltd., Bloomberg

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

VALUATIONS

Although the current valuations of European indices (as measured by P/E ratio) are comparable or in cases appear more expensive relative to other domestic markets for overseas investors, STOXX European indices have actually cheapened since 2016 based on P/E ratios, on the back of growth concerns in Europe and Brexit uncertainty.

At current levels, research from some sell-side firms seems to suggest a favorable entry point for overseas investors in anticipation of a bounce back in economic growth and earnings, and/or supplemented by more easing as witnessed in the latest round of ECB rate cuts and continuation of the monetary stimulus.

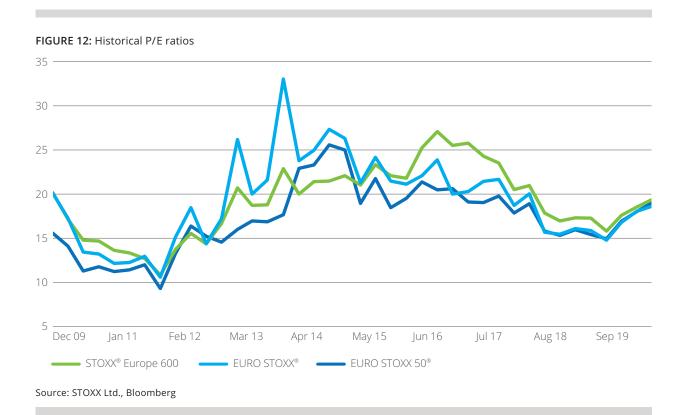


FIGURE 13: Fundamental analysis: December 2015 - October 2019

	P/E	P/E				Price/book			
	Current	Average	Min.	Max.	Current	Average	Min.	Max.	
STOXX® Europe 600	20.15	20.67	15.80	25.26	1.88	1.79	1.60	1.88	
EURO STOXX®	19.62	18.72	14.76	22.08	1.68	1.58	1.41	1.70	
EURO STOXX 50®	20.02	18.22	14.93	21.37	1.77	1.58	1.45	 1.77	
S&P 500	20.39	19.59	16.51	21.74	3.45	3.07	2.76	3.45	
S&P/TSX	17.06	19.15	16.38	21.95	1.79	1.76	1.57	1.90	
TOPIX	14.88	15.62	12.75	18.28	1.23	1.25	1.10	1.36	
Straits Times	12.18	12.20	11.07	13.26	1.09	1.11	1.06	1.19	
S&P/ASX	19.62	18.66	15.39	22.85	2.16	1.96	1.82	2.16	
Hang Seng	10.84	11.25	10.09	12.39	1.22	1.22	1.16	1.37	

Source: STOXX Ltd., Bloomberg

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

PERFORMANCE

Measured over the last 10 years, the STOXX European indices have posted strong returns between 7%–9% on an annualized basis in EUR terms, which is mostly in line with what some of the Asian counterparts covered in this paper have delivered in their respective local currencies. In contrast, the S&P 500 has posted annualized returns of 13.65% during this timeframe, compared to just 7.30% for its regional Canadian equivalent, the S&P/TSX in CAD terms.

Within the last year, the STOXX European indices have delivered strong positive returns in the range of 14% – 17% in EUR terms, despite the ongoing uncertainty around Brexit. The 17% gain of the EURO STOXX 50® has only been exceeded by the S&P ASX 200 across all regions that we have compared, posting 19% in its local currency. Japanese stocks as tracked by the TOPIX have significantly lagged behind all other markets, recording just 4%.

FIGURE 14: Performance analysis for period from 31 October 2009 – 31 October 2019

	Europe			Americas	5	Asia Pacific			
	STOXX® Europe 600	EURO STOXX®	EURO STOXX 50®	S&P 500	S&P/ TSX	TOPIX	Straits Times	S&P ASX 200	Hang Seng
Gross returns (USD)									
Return overall (ann.)	6.0%	4.9%	3.9%	13.6%	5.2%	6.7%	5.7%	5.5%	5.7%
Return 1Y (ann.)	12.1%	12.2%	15.2%	14.3%	13.2%	8.7%	13.2%	16.1%	11.6%
Return 3Y (ann.)	9.6%	9.7%	10.0%	14.8%	7.5%	7.5%	9.3%	8.9%	9.0%
Return 5Y (ann.)	4.4%	5.3%	4.2%	10.7%	2.3%	7.6%	2.2%	3.3%	5.8%
Volatility overall (ann.)	18.4%	21.3%	22.6%	14.8%	16.5%	18.1%	14.5%	19.2%	18.0%
Volatility 1Y (ann.)	13.4%	14.6%	14.8%	15.7%	11.6%	15.3%	12.2%	13.7%	16.8%
Volatility 3Y (ann.)	11.7%	13.1%	13.4%	12.9%	11.3%	14.3%	11.8%	13.3%	15.8%
Volatility 5Y (ann.)	15.2%	16.5%	17.4%	13.5%	14.9%	17.0%	13.4%	17.0%	17.5%
Gross returns (local curr	ency)								
Return overall (ann.)	9.0%	7.9%	6.8%	13.6%	7.3%	8.7%	5.4%	8.3%	5.8%
Return 1Y (ann.)	13.7%	13.9%	16.9%	14.3%	13.2%	3.9%	11.2%	19.2%	11.6%
Return 3Y (ann.)	9.0%	9.1%	9.4%	14.8%	6.8%	8.6%	8.5%	12.5%	9.3%
Return 5Y (ann.)	6.9%	7.8%	6.7%	10.7%	5.5%	6.8%	3.4%	8.4%	6.1%
Volatility overall (ann.)	16.0%	18.4%	19.8%	14.8%	12.0%	19.1%	12.3%	13.8%	17.9%
Volatility 1Y (ann.)	12.6%	13.7%	13.9%	15.7%	9.2%	15.9%	11.0%	11.6%	16.6%
Volatility 3Y (ann.)	11.0%	12.0%	12.5%	12.9%	8.7%	14.7%	10.7%	10.7%	15.7%
Volatility 5Y (ann.)	15.4%	16.5%	17.5%	13.5%	11.0%	18.4%	11.9%	13.0%	17.4%

Source: STOXX Ltd., Bloomberg

The STOXX European indices can offer additional diversification benefits, especially from an Asian perspective, given their very low correlations to these markets (Figure 15). Measured based on daily returns, correlation figures range from as low as 0.24 (TOPIX) to a maximum of 0.63 (S&P 500).

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

FIGURE 15: Correlations analysis for period from 31 October 2009 – 31 October 2019 (daily local currency returns)

	STOXX® Europe 600	EURO STOXX®	EURO STOXX 50®	S&P 500	S&P/ TSX	TOPIX	Straits Times	S&P ASX 200	Hang Seng
STOXX® EUROPE 600		0.97	0.96	0.62	0.58	0.28	0.46	0.35	0.41
EURO STOXX®	-		0.99	0.63	0.58	0.26	0.43	0.31	0.38
EURO STOXX 50®	-	-		0.62	0.56	0.24	0.41	0.29	0.36
S&P 500	-	-	-		0.74	0.15	0.27	0.19	0.22
S&P/TSX	-	-	-	-		0.18	0.33	0.26	0.27
TOPIX	-	-	-	-	-		0.46	0.52	0.47
Straits Times	-	-	-	-	-	-		0.55	0.67
S&P ASX 200	-	-	-	-	-	-	-		0.56
Hang Seng	-	-	-	-	-	-	-	-	

Source: STOXX Ltd., Bloomberg

CONCLUSION

Through the range of investment vehicles available on the STOXX® Europe 600, EURO STOXX® and EURO STOXX 50® indices, STOXX offers highly accessible alternatives for overseas investors looking to allocate capital into European equity markets. The STOXX® Europe 600, with its broader coverage both in terms of geography and stock selection provides a mechanism for accessing over 90% of the market capitalization of Western Europe. Overseas investors looking to limit their exposure to a number of currencies whilst still reaping the diversification benefits the region has to offer, may do so via the EURO STOXX® index, which represents small-, mid- and large cap stocks within the economically significant eurozone area. Given the uncertainty around Brexit and the resulting volatility in the GBP, and the recent efforts by ECB to spur growth, this may present a more attractive alternative. The iconic EURO STOXX 50® which represents supersector leaders, provides overseas investors that wish to express a view on blue chip stocks within the eurozone, an efficient and highly liquid means to do so.

The industry allocation represented by these indices offer further diversification benefits and allow overseas investors to express tactical and strategic sector plays on the back of relatively concentrated home market exposures. In comparisons to the other regional indices covered in this analysis where some sector allocations exceed 40%, no single industry within the STOXX® Europe 600, EURO STOXX® or EURO STOXX 50® accounts for more than 20%.

Overseas investors looking to gain access to European stock markets have a plethora of investment vehicles linked to STOXX indices to choose from, including ETFs, listed futures and options. Sectoral subsets of the indices are also available via similar investment vehicles. At present, there are currently over EUR 60 billion in assets across 200 ETF products tracking various STOXX European indices. Additionally, the futures and options on the EURO STOXX 50® index, traded on Eurex, are among the most liquid of such products in Europe and the world. This year has seen the addition of both ETFs and derivatives based on the ESG versions of the STOXX® Europe 600 and EURO STOXX 50® that address the increasing demand from investors for such sustainable investment products.

STOXX EUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

The STOXX® Europe 600, EURO STOXX® and EURO STOXX 50® have offered relatively consistent dividend yields over the last 10 years on a trailing basis, providing an additional source of portfolio returns and income for investors. These indices have also delivered strong positive returns over the last year, in the range of 14% – 17% in EUR terms, despite the ongoing uncertainty around Brexit. With the ECB providing a monetary boost by stating that it expects to keep rates at "present or lower levels" until inflation converges nearer to its 2% target and the resumption of its asset-purchase program, stocks in the region are likely to benefit further. This is a view that has also been supported by sell-side research houses.

Given the low correlations to other regional markets, strong performance over the last year and ease of accessibility via a range of investment vehicles, non-domestic investors looking to reduce home bias and diversify their portfolios are likely to find STOXX European indices supportive of their investment objectives.

STOXX FUROPEAN FLAGSHIP INDICES FOR OVERSEAS INVESTORS

About STOXX Ltd.

STOXX Ltd. is a global index provide that currently calculates a global, comprehensive index family of over 10,000 strictly rules-based and transparent indices. Best known for the leading European equity indices EURO STOXX 50®, STOXX® Europe 50 and STOXX® Europe 600, STOXX Ltd. maintains and calculates the STOXX Global index family which consists of total market, broad and blue-chip indices for the Americas, Europe and Asia/Pacific regions and the Latin America and BRIC (Brazil, Russia, India and China) sub-regions, as well as global markets.

To provide market participants with optimal transparency, STOXX indices are classified into four categories. Regular "STOXX" indices include all standard, theme and strategy indices that are part of STOXX's integrated index family and follow a strict rules-based methodology. The "iSTOXX" brand typically comprises less standardized index concepts that are not integrated in the STOXX Global index family, but are nevertheless strictly rules-based. While "STOXX" and "iSTOXX" brand indices are developed by STOXX for a broad range of market participants, the "STOXX Customized" brand covers indices that are specifically developed for clients and do not include the STOXX brand in the index name. STOXX uses the Omnient brand to offer custom indices from its existing index universe.

STOXX indices are licensed to more than 600 companies around the world as underlyings for Exchange Traded Funds (ETFs), futures and options, structured products and passively managed investment funds. Three of the top ETFs in Europe and approximately 25% of all assets under management are based on STOXX indices. STOXX Ltd. holds Europe's number one and the world's number two position in the derivatives segment.

Since September 2019 STOXX is part of Qontigo.

Qontigo is a financial intelligence innovator and a leader in the modernization of investment management, from risk to return. The combination of the company's world-class indices and best-of-breed analytics, with its technological expertise and customer-driven innovation enables its clients to achieve competitive advantage in a rapidly changing marketplace. Qontigo's global client base includes the world's largest financial products issuers, capital owners and asset managers. Created in 2019 through the combination of STOXX, DAX and Axioma, Qontigo is part of Deutsche Börse Group, head-quartered in Eschborn with key locations in New York, Zug and London.

Qontigo's index provider STOXX is part of Deutsche Börse Group, and the administrator of the DAX indices under the European Benchmark Regulation.

www.stoxx.com

CONTACTS

Theilerstrasse 1a CH-6300 Zug P +41-(0)43 430 71 01 stoxx@stoxx.com www.stoxx.com

Frankfurt: +49 (0) 69 211 13243 Hong Kong: +852 6307 9316 London: +44 (0) 20 7862 7680 New York: +1 212 669 6426 Singapore: +65 9189 7970

Tokyo: +81-3-4578-6688 / 03-4578-6688



©STOXX 2019. All Rights Reserved.

STOXX research reports are for informational purposes only and do not constitute investment advice or an offer to sell or the solicitation of an offer to buy any security of any entity in any jurisdiction.

Although the information herein is believed to be reliable and has been obtained from sources believed to be reliable, we make no representation or warranty, expressed or implied, with respect to the fairness, correctness, accuracy, reasonableness or completeness of such information.

No guarantee is made that the information in this report is accurate or complete, and no warranties are made with regard to the results to be obtained from its use. STOXX Ltd. will not be liable for any loss or damage resulting from information obtained from this report. Furthermore, past performance is not necessarily indicative of future results.

Exposure to an asset class, a sector, a geography or a strategy represented by an index can be achieved either through a replication of the list of constituents and their respective weightings or through investable instruments based on that index. STOXX Ltd. does not sponsor, endorse, sell, promote or manage any investment product that seeks to provide an investment return based on the performance of any index. STOXX Ltd. makes no assurance that investment products based on any STOXX index will accurately track the performance of the index itself or return positive performance.

The views and opinions expressed in this research report are those of the author and do not necessarily represent the views of STOXX Ltd. This report is for individual and internal use only. It may not be reproduced or transmitted in whole or in part by any means – electronic, mechanical, photocopying or otherwise – without STOXX's prior written approval.

No guarantee is made that the information in this report is accurate or complete and no warranties are made with regard to the results to be obtained from its use. STOXX Ltd. will not be liable for any loss or damage resulting from information obtained from this report. Furthermore, past performance is not necessarily indicative of future results. The views and opinions expressed in this research report are those of the author and do not necessarily represent the views of STOXX Ltd.

This report is for individual and internal use only. It may not be reproduced or transmitted in whole or in part by any means, electronic, mechanical, photocopying, or otherwise, without STOXX's prior written approval.