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DIVIDEND AS A GLOBAL INVESTMENT FACTOR—THE STOXX® ASEAN SELECT DIVIDEND 30 INDEX

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DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

Abstract

In an ultra-low-interest-rate environment, dividend investing has become increasingly popular as investors flee lower-yielding portfolios for higher-yielding stocks. In a scenario of faltering growth, with central banks' asset purchase programs shaping the pattern of government benchmark yields, the hunt for yield dictates the investment agenda in a prolonged scenario of near-zero interest rates and negative yields at the short end of yield curves of high-quality paper.

In spite of portfolio substitution effects, which may bring undesired consequences of concentration in given industry sectors or exposure to low-quality companies, a disciplined equity income strategy weighting sustainable dividend growth could be part of asset allocation strategies of long-term investors.

Cash dividend coverage with income before extraordinary items is the variable to monitor in order to select companies that can sustain and increase dividends over time. Typically, sustainable dividend growth rates are accompanied by growing operating free cash flows. An example of the importance of this relationship was evident in the financial sector during and in the aftermath of the recent credit crisis, when banks were forced to cut dividends because of a deterioration in fundamentals that was also due to excess leverage.

Extensive academic research has shown that superior and consistent dividend-yielding stocks tend to generate above-market risk-adjusted returns over long-term time horizons. Nonetheless, results are controversial, especially in light of the most recent findings. The predictability of stock returns from dividend ratios has long been debated in financial literature.

In particular, the efficient market hypothesis, which negates the predictability of future stock returns, stands against a number of academic studies that have appeared to provide empirical evidence that dividend yield is significant in explaining expected stock returns.

This research paper investigates the foundations of dividend investing and also reviews some academic literature on the topic. It then focuses on the specific dividend investing case of ASEAN equity income, analyzing the risk/return profile and performance drivers of the STOXX ASEAN Select Dividend 30 Index. The goal is to identify both fundamental and macro factors that may justify the case for dividend investing in the ASEAN region with a forward-looking perspective. STOXX ASEAN Select Dividend 30 Index is a second-generation concept of dividend indices that factor in a superior contribution of dividend yield in the design of the index itself.

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"HE TURNS NOT BACK WHO IS BOUND TO A STAR."

Leonardo da Vinci (1452-1519)

1 Dividend Investing—An Introduction and Literature Review

The predictability of stock returns from dividend ratios has long been debated in financial literature. The general term "dividend ratios" makes reference to, alternatively, the dividend yield computed for a given firm—the total dividends paid by all stocks divided by the total stock market capitalization at the beginning of the year, or the dividend-price ratio—given by the total dividends paid by all stocks divided by the total stock market capitalization at the end of the year.

The efficient market hypothesis in its three forms: "weak," "semi-strong" and "strong," claims that all publicly available information is already reflected in the current prices of listed assets; therefore, future stock returns should be completely unpredictable.

Nonetheless, a number of studies have appeared to provide empirical evidence that dividend yield is significant in explaining expected stock returns. Generally speaking, dividend yield has shown statistical significance in predicting annual equity premia. Cochrane¹ has surveyed the literature on the topic, critically reviewing the statistical evidence on average stock return and the economic theories that explain it.

Extensive research has shown that superior and consistent dividend-yielding stocks tend to generate above-market risk-adjusted returns. Academic studies have analyzed the importance of dividends and the relationship existing between high dividend yields and attractive investment returns over long-term time horizons.

In particular, a number of studies have regressed stock returns on dividend yield, inferring the existence of statistically significant time variation in expected returns. Dividend yield has been found to have predictive power on expected returns in both time series (Campbell and Shiller, 1988; Fama and French, 1988, 1989; Rozeff, 1984; Shiller, 1984)² and cross-section analyses (Litzenberger and Ramaswamy, 1979)³.

¹ Cochrane, J. H. (1997), "Where Is the Market Going? Uncertain Facts and Novel Theories," Federal Reserve Bank of Chicago—Economic Perspectives, 21(6), pp. 3–37.

² Campbell, J. Y. and R. J. Shiller (1988), "The Dividend-Price Ratio and Expectations of Future Dividends and Discount Factors," Review of Financial Studies, 1, pp. 195–228. Fama, E. F. and K. R. French (1988), "Dividend Yields and Expected Stock Returns," Journal of Financial Economics, 22, pp. 3–25. Fama, E. F. and K. R. French (1989), "Business Conditions and Expected Returns on Stocks and Bonds," Journal of Financial Economics, 25, pp. 23–49. Rozeff, M. S. (1984), "Dividend Yields Are Equity Risk Premiums," Journal of Portfolio Management, 11, pp. 68–75. Shiller, R. J. (1984), "Stock Prices and Social Dynamics," Brookings Papers on Economic Activity, 2, pp. 457–498.

³ Litzenberger, R. H. and K. Ramaswamy (1979), "The Effect of Personal Taxes and Dividends on Capital Asset Prices: Theory and Empirical Evidence," Journal of Financial Economics, 7, pp. 163–195.

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In an analysis for the period 1926–1991, Kothari and Shanken⁴ found evidence that both book-to-market and dividend yield tracked time-series variation in expected real one-year stock returns over the period (book-to-market was stronger, with stronger results particularly evident for the equally weighted index) and the subperiod 1941–1991 (dividend yield was stronger). The dividend yield slope estimates for the 1941–1991 subperiod were sizable, “implying expected return movements from three to eight percentage points for one-standard-deviation changes in the financial ratios.”

In his analysis Christie⁵ found evidence that negated findings of previous literature documenting a U-shaped pattern arising from the positive CAPM-adjusted average excess return of zero-dividend firms. Using a size-based expected-returns model, Christie showed that zero-dividend firms earned negative excess returns of minus 0.41% per month over the 1946–1985 period. “The negative excess returns associated with zero-dividend firms are common to all size deciles and all months other than January, and differ significantly from the results reported by Blume (1980) and Keim (1983, 1985).” The anomaly in the magnitude of those excess returns—concentrated in the initial zero-dividend years in the sample and approaching a negative 1% per month—was attributed to dividend-expectation effects that impacted the observed before-tax return differential.

It is noteworthy that in a paper that negated key findings of previous studies, Goyal and Welch⁶ suggested a graphical approach using a comparative sum-squared model residual out-of-sample performance to diagnose equity premium and stock price prediction. The analysis relied on the value-weighted CRSP Index’s annual return for the sample period 1926–2002. The authors found that “neither the dividend-yield nor the dividend price ratio showed both the in-sample and out-of-sample performance that should have led one to believe that it could outperform the simple prevailing equity premium average in an economically or statistically significant manner.” And they added that “any remaining explanatory predictive ability of the dividend ratios in the post-war period prior to the 1990s was due to two years only, 1973 and 1974.” The authors suggested that parameter instability was the primary source of poor predictive ability. Also, in arguing that dividend yield showed poor prediction ability because it had mainly forecast its own change, failing to predict one-year-ahead returns or dividend-growth rates, the authors validated Cochrane’s accounting identity⁷, concluding that “it finds traction on horizons of 5–10 years or more.”

Along similar lines, Wolf⁸ investigated stock return predictability from dividend yields using a subsampling statistical technique⁹ that proved to be powerful in constructing confidence intervals for unknown parameters in the context of dependent and heteroskedastic random variables. In his analysis, the author made reference to the same three data sets used in previous literature that analyzed stock

⁴ Kothari S. P. and J. Shanken (1997), “Book-to-Market, Dividend Yield, and Expected Market Returns: A Time-Series Analysis,” *Journal of Financial Economics*, 44, pp. 169–203.

⁵ Christie, W. G. (1990), “Dividend Yield and Expected Returns: The Zero-Dividend Puzzle,” *Journal of Financial Economics*, 28, pp. 95–125.

⁶ Goyal, A. and I. Welch (2003), “Predicting the Equity Premium with Dividend Ratios,” *Management Science*, 49(5), pp. 639–654.

⁷ In the 1997 paper (cited in Footnote 1), Cochrane’s accounting identity refers to the fact that price/dividend ratios must in the long run predict either stock returns or dividend growth.

⁸ Wolf, M. (2000), “Stock Returns and Dividend Yields Revisited: A New Way to Look at an Old Problem,” *Journal of Business & Economic Statistics*, 18(1), pp. 18–30.

⁹ Subsampling, as well as bootstrapping, is a powerful technique for constructing confidence intervals. Subsampling works under weaker conditions and relies on simpler theory than bootstrapping, which requires more robust conditions to generate valid confidence intervals. However, subsampling requires choosing a model parameter (the size b of the subsamples), which is not automatic and requires resampling from the true unknown distribution of the original sample. For more information, please refer to Politis, D. N., J. P. Romano and M. Wolf (1999), “Subsampling,” Springer Verlag.

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return predictability from dividend yields. In particular, working on five return horizons ranging between one month and four years, value-weighted and equally weighted stock portfolios based on the CRSP files for NYSE stocks for the period December, 1926, to December, 1986 (721 monthly observations) and S&P 500 Index data for the period December, 1926, to January, 1995 (818 monthly observations) were considered in the analysis. Both complete data sets and post-war data (starting in December, 1947) were analyzed, since the post-war period showed higher predictability of returns¹⁰. Initial data findings appeared to show evidence of predictability of stock returns from dividend yields only for the four-year horizon. Nonetheless, "mild undercoverage of subsampling confidence intervals for long horizons due to very strong dependencies in the residuals, as suggested by our simulation study, and the issue of multiple testing cast some doubt on this evidence." The authors concluded that the case for predictability of stock returns was weak since "A reorganization of long horizon returns, avoiding increasing correlation in the residuals by means of summing dividend yields rather than returns, resulted in insignificant outcomes for all horizons. Moreover, a joint test for all five return horizons also failed to find any evidence."

Benjamin Graham¹¹ focused on the "margin of safety" concept in building his reputation as a legendary investor. Among the four rules that should guide investor selection of common stocks, Graham focused on the long record of continuous dividend payments a company should have. Investors should look for consistent dividends from companies with a track record of conservative financing and stable payouts.

Also, in a study¹² that examined for the period 1957-2002 the performance of the constituents of the S&P 500 Index ranked by dividend yield, Professor Jeremy Siegel formulated the terms "bear market protector" and "return accelerator" to describe how dividend reinvestment during stock market declines can significantly reduce the time necessary to recover portfolio losses. The study gave evidence of the direct correlation between superior performance and higher dividend yields. For the period analyzed, the highest yielding quintile (the top 20% of S&P 500 constituents) produced an annualized return of 14.27% versus an annualized return of 11.18% for the S&P 500 Index.

A stock-picking strategy weighting high-dividend-yielding stocks became popular after Michael O'Higgins' book "Beating the Dow" was published in 1991¹³, which showed that the highest dividend stocks in the Dow Jones Industrial Average outperformed since 1973. The investment strategy focused on the concept of the "Dogs of the Dow," which are the ten of thirty companies in the Dow Jones Industrial Average with the highest dividend yield. In the Dogs of the Dow strategy, the investor allocates his or her portfolio by equally weighting the "Dogs of the Dow" stocks. The investor's portfolio is then rebalanced on an annual basis at the beginning of each year to exclude those stocks whose dividend yields have fallen out of the top ten.

It is worth noting that in the current ultra-low-interest-rate environment, attractive-yield investments are to some extent considered to be proxies for bonds by dividend investors, exposing investors to a potential impact on portfolio allocation if an interest rate rise should materialize. Although dividend-bearing

¹⁰ Please refer to Hodrick, R. (1992), "Dividend Yields and Expected Stock Returns: Alternative Procedures for Inference and Measurement," *Review of Financial Studies*, 5(3), pp. 357–386; Nelson, C. R. and M. J. Kim (1993), "Predictable Stock Returns: The Role of Small Sample Bias," *Journal of Finance*, 48(2), pp. 641–661.

¹¹ Graham, B. (1973), "The Intelligent Investor," Fourth Revised Edition, Harper Business.

¹² Siegel, J. (2005), "The Future for Investors," Crown Business.

¹³ A revised edition of the original book was published in 2000 as O'Higgins, M. B. and J. Downes (2000), "Beating the Dow," HarperBusiness, Rev Subedition.

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equities can be considered to have "bond-like characteristics," industry sector exposure and sustainable dividend growth are variables to take into account in bond-proxies investing. At the same time, high-dividend-yielding stocks might be more resilient to a decline in price than lower-yielding securities, given that stocks factor in a "yield effect."

In the current zero-interest-rate environment, the investment appeal of "dividend aristocrats" has increased significantly. The term identifies those companies in the S&P 500 Index that have increased dividend payouts to shareholders every year for the last 25 years. The S&P 500 dividend aristocrats are the list of top dividend-paying stocks of the S&P 500 Index. In order to maintain a sustainable pace of rising dividends regardless of the economic cycle, companies must have solid business models and guarantee stable cash flows.

In the dynamic version of the Gordon growth model¹⁴, the stock price is dependent not only on the pace of growth of dividends (as well as on the discount rate—the lower the discount rate, the higher the dividend) but also on the length of the period in which the dividend growth rate is expected to stay at sustained levels (how long the discount rate is expected to remain low).

In the real world, asset prices are nonlinear combinations of expected future dividends and returns, since both are time varying. Expanding on the dynamic Gordon growth model, Campbell¹⁵ shows that asset returns are linear combinations of revisions in expected future dividends and returns. In particular, changes in expectations of future dividends or returns determine the opposite effects on asset returns. *Ceteris paribus*, an increase in expected future dividends determines a capital gain today¹⁶, while a capital loss today is triggered by an increase in expected future returns. As clarified in Campbell, Lo and MacKinlay¹⁷, in the case where the flow of dividends is given, future price appreciation from a lower current price will be the only determinant of higher future returns.

The equation below shows that unexpected stock returns are associated with changes in expectations of future dividends or real returns.

$$r_{t+1} - E_t[r_{t+1}] = E_{t+1} \left[\sum_{j=0}^{\infty} \rho^j \Delta d_{t+1+j} \right] - E_t \left[\sum_{j=0}^{\infty} \rho^j \Delta d_{t+1+j} \right] - \left(E_{t+1} \left[\sum_{j=1}^{\infty} \rho^j r_{t+1+j} \right] - E_t \left[\sum_{j=1}^{\infty} \rho^j r_{t+1+j} \right] \right),$$

where, adopting the general convention that logs of the variables are denoted by lowercase letters:

r_{t+1} = log stock return,

$r_{t+1} - E_t[r_{t+1}]$ = unexpected stock return,

¹⁴ Gordon, M. J. and E. Shapiro (1956), "Capital Equipment Analysis: The Required Rate of Profit," *Management Science*, 3(1), pp. 102-110. Reprinted in "Management of Corporate Capital," Glencoe, Ill., Free Press of (1959). The dynamic Gordon growth model reduces to the original Gordon growth model when dividend growth rates and discount rates are constant.

¹⁵ Campbell, J. (1991), "A Variance Decomposition for Stock Returns," *Economic Journal*, 101, pp. 157-179.

¹⁶ Kothari S.P. and J. Shanken (1992), "Stock Return Variation and Expected Dividends: A Time-Series and Cross-Sectional Analysis," *Journal of Financial Economics*, 31, pp. 177-210. The authors argue that, in an efficient market, stock return variation can be explained by rational revisions of future dividend expectations.

¹⁷ Campbell J., A. W. Lo and A. C. MacKinlay (1997), "The Econometrics of Financial Markets," Princeton University Press, Princeton.

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$\rho \equiv \frac{1}{(1+\exp(d-p))}$, where $(d-p)$ is the average log dividend-price ratio,

$$E_{t+1} \left[\sum_{j=0}^{\infty} \rho^j \Delta d_{t+1+j} \right] - E_t \left[\sum_{j=0}^{\infty} \rho^j \Delta d_{t+1+j} \right] = \text{change in expectations of future dividends,}$$

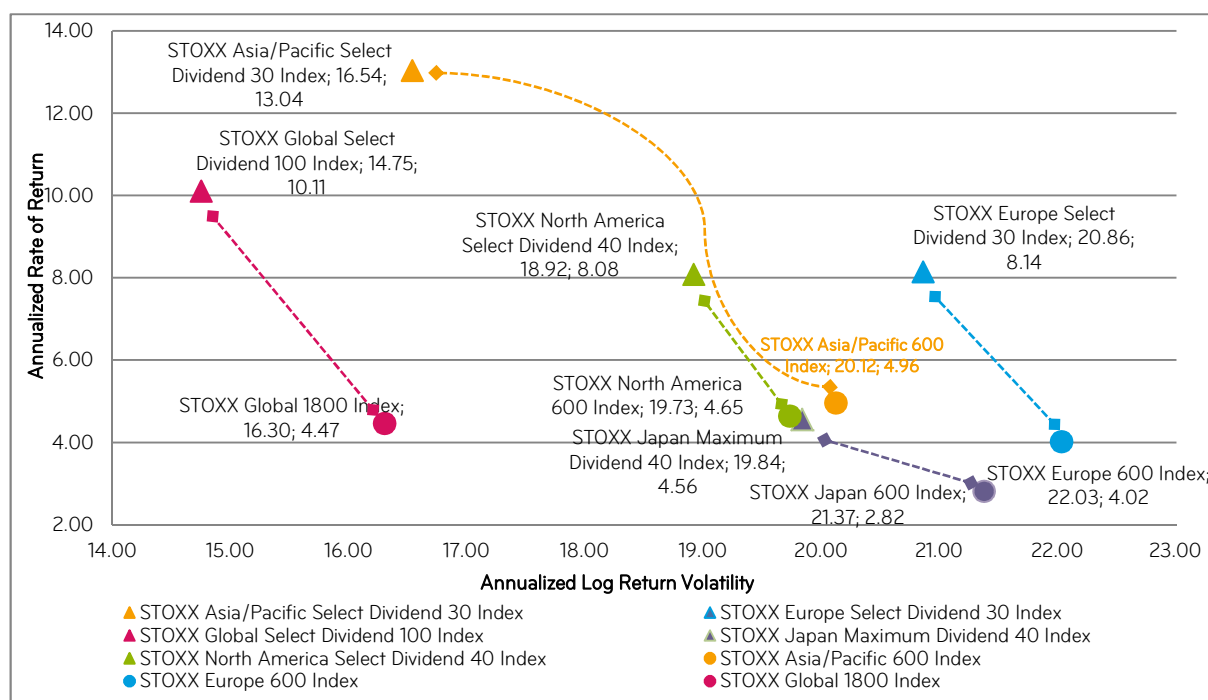
$$\left(E_{t+1} \left[\sum_{j=1}^{\infty} \rho^j r_{t+1+j} \right] - E_t \left[\sum_{j=1}^{\infty} \rho^j r_{t+1+j} \right] \right) = \text{change in expectations of future returns.}$$

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2 The Case for Dividend Investing: A focus on the STOXX® ASEAN Select Dividend 30 Index

The case for investing in high-dividend stocks is strong over a long-term investment horizon. The chart below plots the risk-return profile of selected STOXX traditional benchmarks against corresponding STOXX® Select Dividend Indices for the period Dec. 31, 1998, through Oct. 9, 2015. The difference is highly significant. Among others, for the period Dec. 31, 1998-Oct. 9, 2015, the STOXX® Asia/Pacific Select Dividend 30 Index outperformed the traditional STOXX® Asia/Pacific 600 Index by 807 basis points in annualized-rate-of-return terms, with an annualized log return volatility 358 basis points lower than the traditional STOXX benchmark.

FIGURE 1 RISK-RETURN PROFILES OF STOXX TRADITIONAL BENCHMARKS VERSUS STOXX SELECT DIVIDEND INDICES (DEC. 31, 1998-OCT. 9, 2015, DAILY DATA, US-DOLLAR NET RETURN; DATA FOR STOXX® JAPAN 600 INDEX AND STOXX® JAPAN MAXIMUM DIVIDEND 40 INDEX AS OF JUN. 22, 2004)



Source: STOXX

An analysis for the year 2014 of the top-yielding-quintile portfolio (based on year-end realized dividend yield) selected from the 1,000 largest US stocks by market capitalization showed that the median total annual return of the sample was 104 basis points higher than the median total annual return of the portfolio of the 1,000 largest US equities. The top-yielding-quintile portfolio of US stocks returned a median realized dividend yield of 3.58% versus a lower 1.45% for the overall US stock portfolio.

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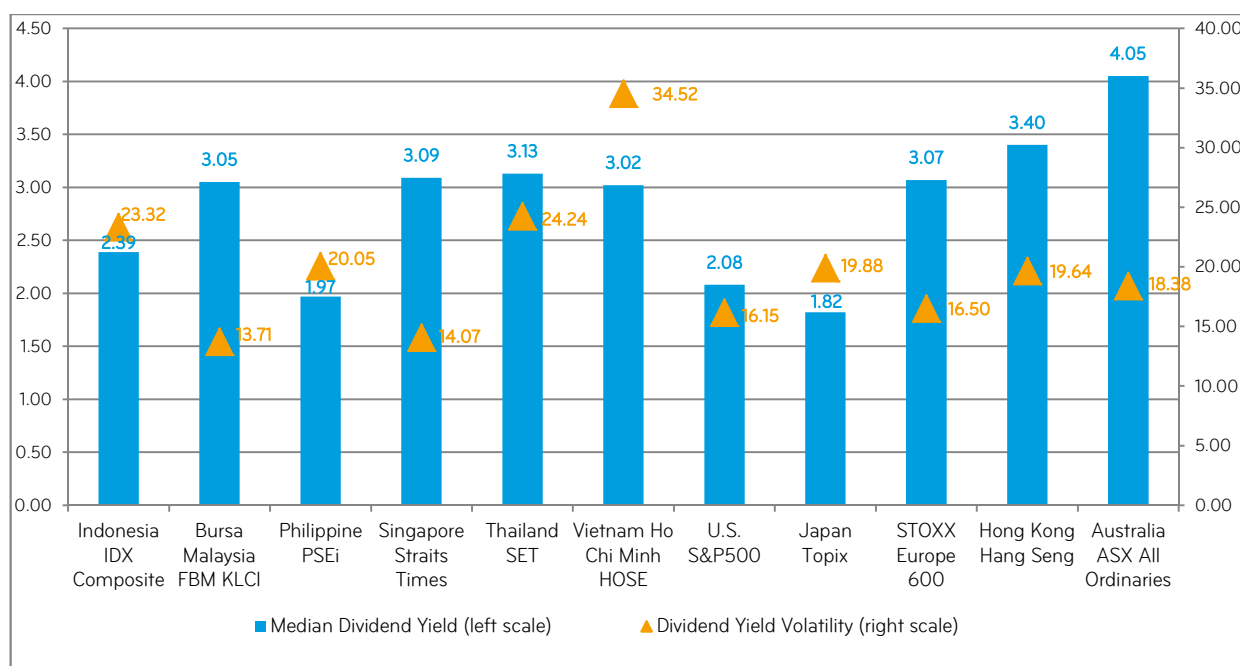
TABLE 1 TOP-YIELDING-QUINTILE US STOCKS PORTFOLIO VERSUS LARGE-CAP US STOCKS PORTFOLIO, MEDIAN TOTAL ANNUAL RETURN AND MEDIAN REALIZED DIVIDEND YIELD (US-DOLLAR TOTAL RETURN, 2014)

| Top-Yielding-Quintile US Stocks Portfolio vs. Large-Cap US Portfolio | | |
|--|---------------|------------------------------------|
| | Median Return | Median Realized Dividend Yield (%) |
| Top-Yielding-Quintile US Stocks | 11.44% | 3.58 |
| Large-cap 1,000 US Stocks | 10.40% | 1.45 |

Source: STOXX

The median values of daily dividend yield of selected Association of Southeast Asian Nations (ASEAN) stock market indices for the period Oct. 12, 2010-Oct. 12, 2015, showed readings in line with and in some cases—namely Singapore Straits Times and Thailand SET—above calculated figures for some of the developed-market benchmarks. Furthermore, in the period analyzed, daily dividend yield for Bursa Malaysia FBM KLCI and Singapore Straits Times showed a certain level of stability as reflected in low levels of volatility for the dividend ratio.

FIGURE 2 MEDIAN DAILY DIVIDEND YIELD VERSUS DAILY DIVIDEND YIELD VOLATILITY, ASEAN STOCK MARKET INDICES AND SELECTED MARKET BENCHMARKS (OCT. 12, 2010-OCT. 12, 2015)



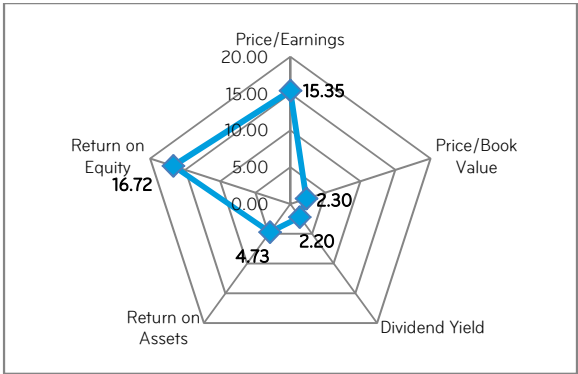
Source: STOXX calculation on Thomson Reuters Datastream data

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The charts below compare estimates of selected valuation metrics and fundamental ratios for the IDX Composite Index, the FTSE Bursa Malaysia KLCI Index, the Philippine Stock Exchange Composite Index, the Singapore Straits Times Index, the Thailand Stock Exchange SET Index and the Vietnam Ho Chi Minh Index for the twelve-month periods ended Dec. 31, 2015, and Dec. 31, 2016.

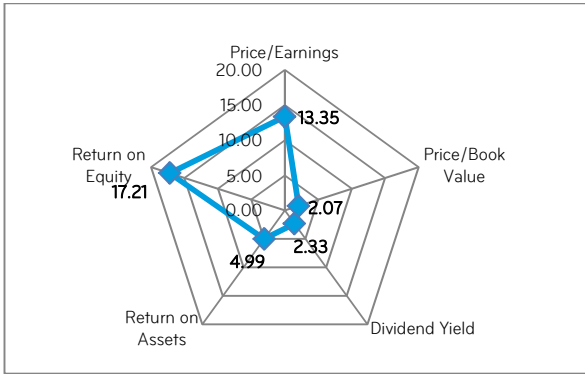
Fundamental valuation metrics and ratios appear to depict, with a short-term time horizon, a healthy picture for ASEAN markets. For all market indices but the Vietnam Ho Chi Minh Index, dividend yield ratios are forecast to increase in 2016 compared to estimates at the end of the current year. At the same time, profitability ratios are projected to increase at the end of the next financial year.

FIGURE 3A INDONESIA STOCK EXCHANGE COMPOSITE INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2015)



Source: Bloomberg

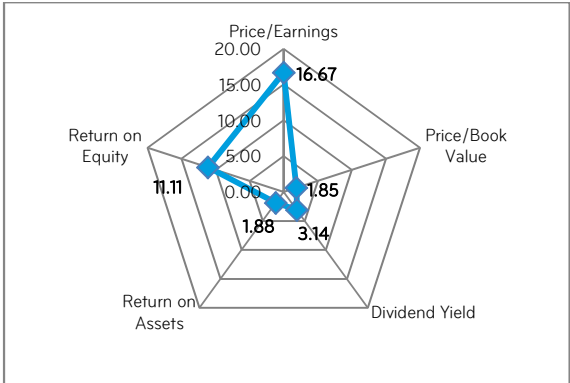
FIGURE 3B INDONESIA STOCK EXCHANGE COMPOSITE INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2016)



Source: Bloomberg

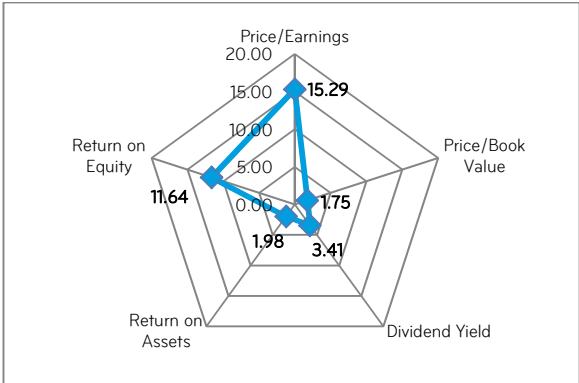
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FIGURE 4A FTSE BURSA MALAYSIA KLCI INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2015)



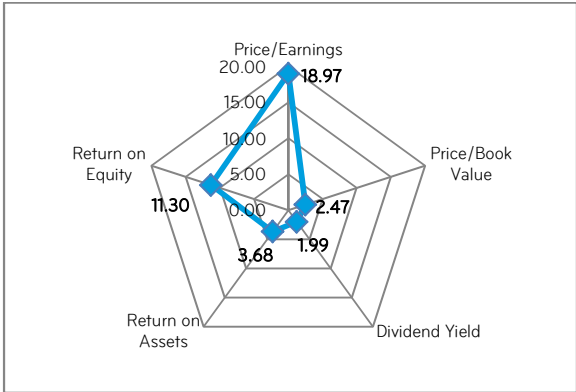
Source: Bloomberg

FIGURE 4B FTSE BURSA MALAYSIA KLCI INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2016)



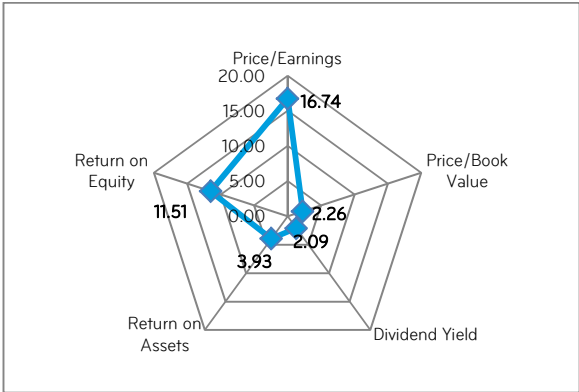
Source: Bloomberg

FIGURE 5A PHILIPPINE STOCK EXCHANGE COMPOSITE INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2015)



Source: Bloomberg

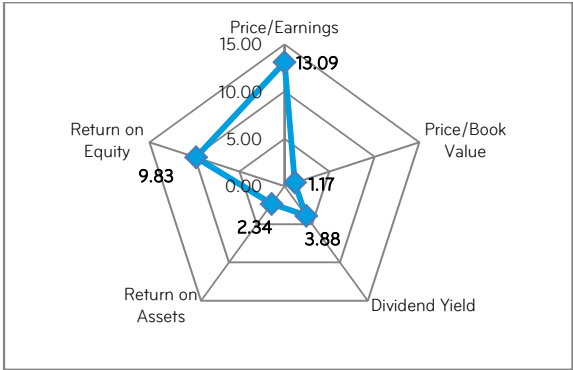
FIGURE 5B PHILIPPINE STOCK EXCHANGE COMPOSITE INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2016)



Source: Bloomberg

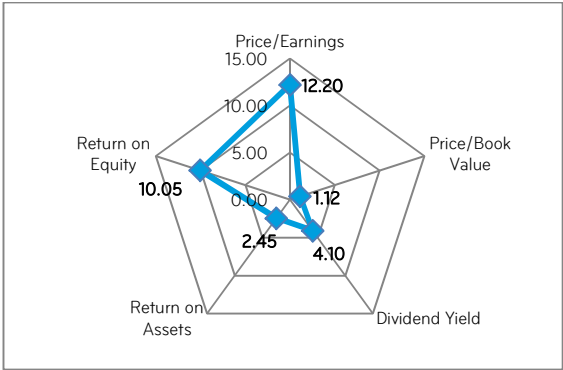
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FIGURE 6A SINGAPORE STRAITS TIMES INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2015)



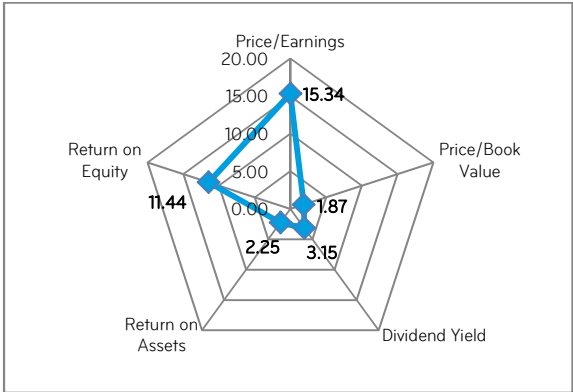
Source: Bloomberg

FIGURE 6B SINGAPORE STRAITS TIMES INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2016)



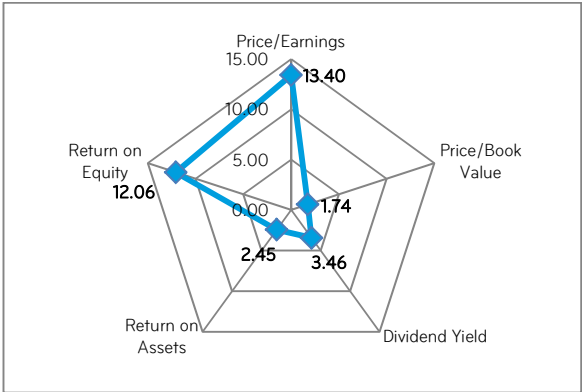
Source: Bloomberg

FIGURE 7A THAILAND STOCK EXCHANGE SET INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2015)



Source: Bloomberg

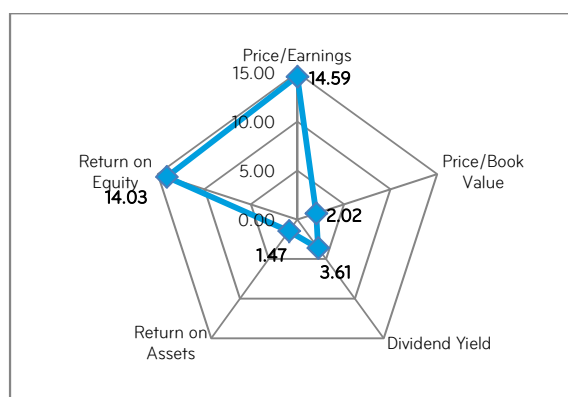
FIGURE 7B THAILAND STOCK EXCHANGE SET INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2016)



Source: Bloomberg

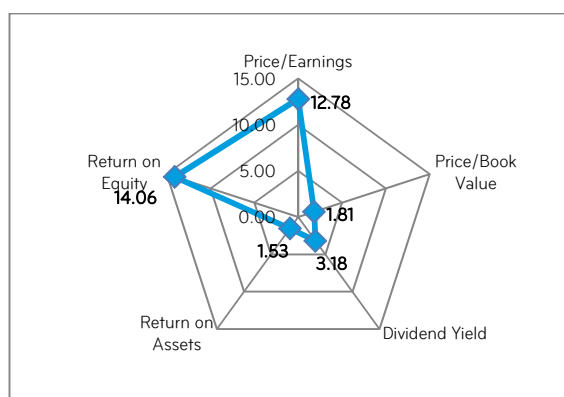
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FIGURE 8A VIETNAM HO CHI MINH STOCK INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2015)



Source: Bloomberg

FIGURE 8B VIETNAM HO CHI MINH STOCK INDEX, VALUATION METRICS AND FUNDAMENTAL RATIO ESTIMATES (END OF FISCAL YEAR 2016)



Source: Bloomberg

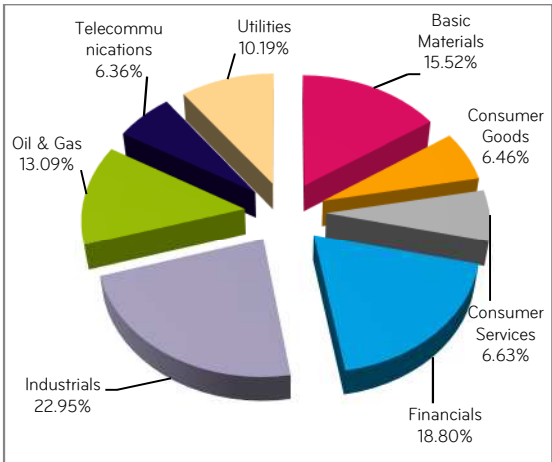
STOXX provides for ASEAN a second-generation concept of dividend indices that factor in a superior contribution of dividend yield in the design of the index. The STOXX® ASEAN Select Dividend 30 Index selects high-dividend-paying companies from the following ASEAN countries: Malaysia, Philippines, Thailand, Vietnam, Singapore and Indonesia. The index consists of 30 components.

ASEAN Select Dividend 30 targets tradability, yield and dividend sustainability. Initially, the STOXX® Asia Total Market Index is filtered by countries to select only Indonesia, Malaysia, Philippines, Singapore, Vietnam and Thailand. Stocks that remain after the exclusion criteria are ranked by twelve-month historical dividend yield. Then the 30 top companies are selected, with a maximum of seven companies per country and no minimum requirement. Stocks are equally weighted, with a quarterly review. Thailand is limited to five constituents and a 15% maximum weighting. The index excludes the following stocks: (a) those with a three-month average daily trading volume (ADTV) below USD2 million, (b) those with a payout ratio higher than 80%, (c) those with a foreign investment capacity below 4% (measured as a percentage of shares available to foreign institutional investors (FII)) and (d) real estate investment trusts (REITs).

The figures below show the ICB industry and country allocations at Oct. 19, 2015, for both the STOXX ASEAN Select Dividend 30 Index and the STOXX East Asia Total Market Index.

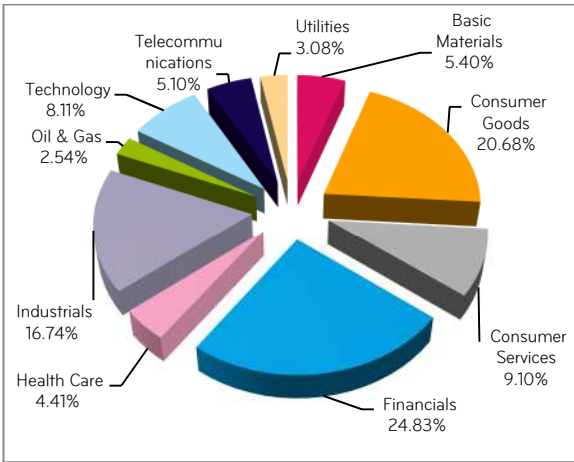
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FIGURE 9A STOXX ASEAN SELECT DIVIDEND 30 INDEX, ICB INDUSTRY ALLOCATION WEIGHTS (OCT. 19, 2015, USD GROSS RETURN)



Source: STOXX

FIGURE 9B STOXX EAST ASIA TOTAL MARKET INDEX, ICB INDUSTRY ALLOCATION WEIGHTS (OCT. 19, 2015, USD GROSS RETURN)

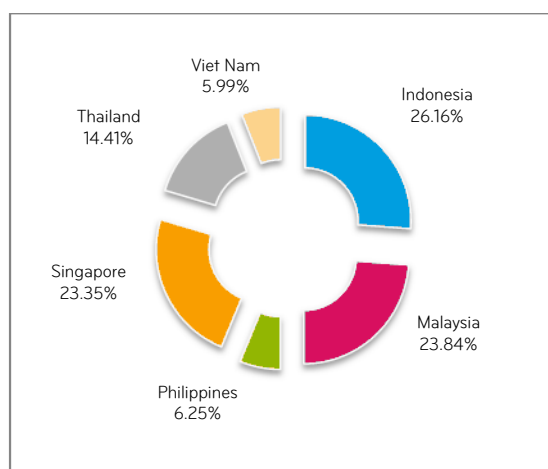


Source: STOXX

As a result of the constituents' methodology construction, allocation overweightings to basic materials, industrials, oil & gas and utilities are noticeable for the STOXX ASEAN Select Dividend Index compared to the STOXX East Asia Total Market Index. At the same time, the STOXX ASEAN Select Dividend Index underweights significantly industry allocations to consumer goods, financials, health care and technology compared to the STOXX East Asia Total Market Index.

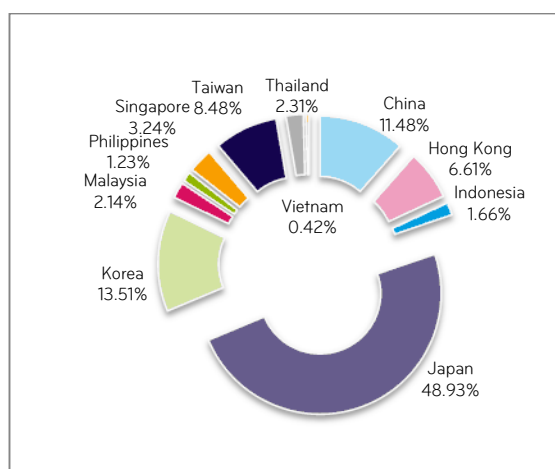
DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

FIGURE 10A STOXX ASEAN SELECT DIVIDEND 30 INDEX, COUNTRY WEIGHTS (OCT. 19, 2015, USD GROSS RETURN)



Source: STOXX

FIGURE 10B STOXX EAST ASIA TOTAL MARKET INDEX, COUNTRY WEIGHTS (OCT. 19, 2015, USD GROSS RETURN)



Source: STOXX

The country breakdown for the STOXX ASEAN Select Dividend Index reflects the higher dividend yield contribution from Indonesia, Malaysia and Singapore. The median values of the dividend ratios of the stock market indices for the three countries come in with readings of 2.34, 3.31 and 3.18, respectively, for the twelve-month period ended Oct. 12, 2015. For the same period, those ratios stand against median dividend yields of 1.73 for the Philippines, 2.89 for Thailand (which is capped at a 15% maximum weighting in the index) and 2.9 for Vietnam.

ASEAN is a bloc of ten nations: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. ASEAN continues to offer interesting investment perspectives. The 2016 edition of the ASEAN Business Outlook Survey published by the US Chamber of Commerce and the American Chamber of Commerce in Singapore shows that US companies remain generally optimistic about growth prospects and business opportunities in the ASEAN region. Also, the Trans-Pacific Partnership (TPP), which currently includes four of the ten ASEAN countries (Brunei Darussalam, Malaysia, Singapore and Vietnam), is expected to sustain regional trade and investment. Furthermore, one-third of the American firms polled in the 2016 ASEAN Business Outlook Survey believe the TPP will impact future investment decisions in the region. More than half of the respondents confirmed the growing importance of ASEAN markets in accounting for their company's worldwide revenue over the past two years. Furthermore, ASEAN is expected by two-thirds of the respondents to become more important in contributing to worldwide revenues for the next two years.

Nonetheless, the ASEAN region faces a number of challenges as exports languish, mainly because of relenting economic growth in China, and commodity prices decline. China is a key trading partner for ASEAN countries. Among others, China is Singapore's main trading partner, while Singapore is China's

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key investment source. Trade between the two countries grew to USD98.5 billion for 2014, up from USD2.8 billion for 1990.

The latest edition of the IMF's Global Financial Stability Report pointed to a rotation of risks toward emerging markets, with a number of economies being vulnerable to external shocks as they face domestic imbalances. Third quarter 2015 saw record outflows from emerging assets to the tune of USD40 billion, according to Institute of International Finance data, the worst quarter since fourth quarter 2008. Net capital flows to emerging markets for the whole year 2015 were projected to be negative for the first time since 1988. Capital outflows from emerging markets appeared to reflect primarily expectations of faltering growth in emerging countries. Those expectations were exacerbated by the recent market turmoil in the Asian region triggered by the People's Bank of China (PBOC) devaluation of the yuan as market participants shifted their focus on the potential impact a declining Chinese market might have on the global economy.

The developments above have sparked concerns that the region could experience an overflow effect and be on the verge of a financial crisis, comparable to the 1997-1998 Asian financial crisis. While a number of similarities with the 1997-1998 crisis remain, it must be acknowledged that central banks in Asia are now better placed, compared to 1998, to weather the effects of a currency crisis. Nonetheless, a tough road ahead toward a longer-term pattern of stable growth is anticipated for the region. The Chiang Mai Initiative Multilateralization (CMIM), which entered into force in July, 2014, stands above all. CMIM is a multilateral currency swap arrangement with a total size of USD240 billion, governed by a single contractual agreement for the purpose of providing financial support in US dollars through currency swap transactions among ASEAN members, the so-called Plus Three countries (China, Japan and Korea) and the Hong Kong Monetary Authority.

According to ADB's latest update of the Asian Development Outlook 2015, the ASEAN aggregate average real GDP growth for the current year is expected to stay unchanged from 2014 at 4.4%, downwardly revised by a half percentage point since the previous estimate. Weak demand from major export markets in developed countries and Asia, coupled with declining commodity and crude oil prices, mainly accounts for the downward revision. The Lao People's Democratic Republic outperformed all other ASEAN members but Myanmar for 2014, posting economic growth exceeding 7.0% in nearly every year of the post-crisis period. GDP growth for the country declined to 7.4% for 2014 from 7.9% for 2013 and is projected at 6.7% for the current year, rising further to 7.0% for 2016.

Indonesia and Thailand, the largest members of ASEAN, posted for 2014—for the second year in a row—a lower GDP growth rate. Measures taken to reduce the current account deficit, subdued export levels in Indonesia and political turmoil in the first half of 2014 in Thailand dragged down the economic growth of the two countries. Conversely, Malaysia (+6.0%) and Vietnam (+6.0%) recorded higher GDP growth rates for 2014 compared to the previous year's reading.

Although being downwardly revised from a former forecast, aggregate growth is projected to accelerate to 4.9% for 2016, thereby approaching the prefinancial-crisis pace, mainly driven by improved export levels and sustained investments. Despite decelerating in the past year, Indonesia and Thailand are expected to contribute significantly in 2016 to re-establishing a pattern of solid growth in the region, with the two countries in particular benefiting from benign inflation readings and fiscal stimulus packages. Infrastructure investments in Indonesia (where the government is expected to ramp up its disbursement of funds for capital spending), Thailand and the Philippines will be supportive of economic growth in 2016.

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Improved external demand for the region's output should contribute to sustaining an expected pickup in most members of ASEAN, offsetting the gradual easing in the GDP pace of growth of China.

At the same time, the current account balance for those ASEAN member countries that are net crude oil importers has been improving recently as they benefited from declining energy prices. On the other hand, fiscal and economic reforms will contribute to compensate for lower revenue from hydrocarbons in those countries such as Malaysia that will likely experience a worsening in trade and current account surpluses. The current account balance for the aggregated region as a percentage of GDP is projected at 3.0% for the current year and 2.7% for 2016.

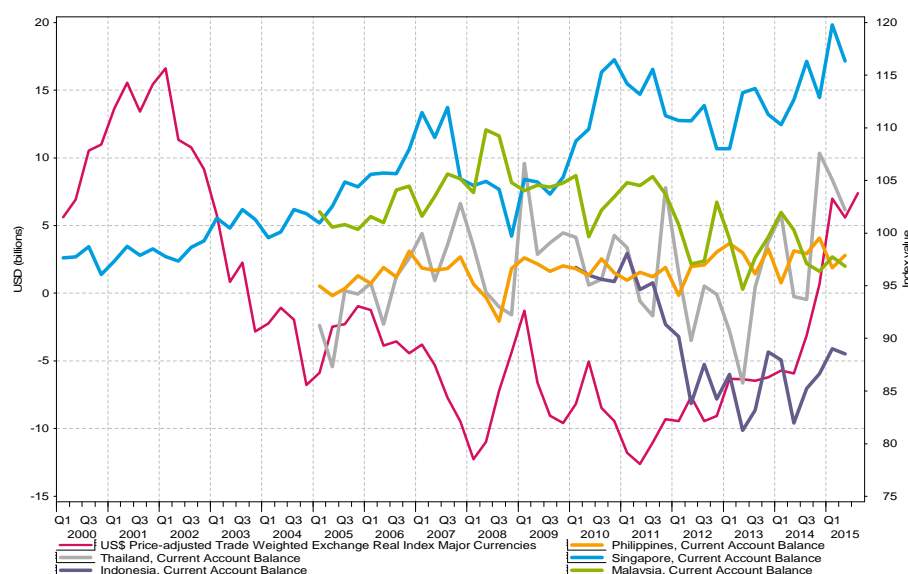
On the other hand, inflation dynamics in the region are expected to decelerate in the coming years, benefiting from subdued price patterns in crude oil and global commodities. For the current year, inflation is forecasted to decrease to 3.1% from 4.1% for 2014, and it is projected to be at a slightly higher 3.3% for 2016.

Long-end yields on government bond benchmarks of ASEAN member countries evolved along a declining pattern in 2015 until the end of April. They edged up thereafter as money flows factored in an imminent start of a US tightening cycle and as China-driven market turmoil weighed on portfolio allocations. More recently, ASEAN local government and corporate bonds rallied as expectations of an interest rate tightening in the US were pushed back to first quarter 2016. As interest rate hike expectations receded, the hunt for yield sustained gains in the ASEAN fixed income market. The sovereign debt of the ASEAN-5 (Thailand, Malaysia, Indonesia, Philippines and Vietnam) posted outstanding returns in the emerging market debt segment for 2014.

While yields on Singapore ten-year government benchmarks were almost flat from 2014 year-end until the end of April 2015, Indonesia (-38 basis points), Malaysia (-24 basis points), Philippines (-31 basis points) and Thailand (-26 basis points) saw their respective borrowing costs decrease at the end of March, most likely driven—to a different extent—by economic growth perspectives, tame inflation expectations and a declining pattern in global yields. Compared with their respective readings at 2014 year-end, ten-year government benchmark yields were flat for Malaysia at the Oct. 16, 2015 close, while they rose 8 basis points and 80 basis points for Singapore and Indonesia, respectively. Conversely, long-term yields declined 70 basis points and 48 basis points since the 2014 year-end for the Philippines and Thailand, respectively. ASEAN bonds outperformed other emerging-market peers at the beginning of October, 2015, sustained by a rally in commodity prices, with crude oil prices bouncing back from recent lows.

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FIGURE 11 CURRENT ACCOUNT BALANCE, ASEAN COUNTRIES AND US-DOLLAR PRICE-ADJUSTED TRADE-WEIGHTED EXCHANGE REAL INDEX (Q1 2000-Q3 2015)



Source: Thomson Reuters

With a combined GDP of USD2.5 trillion, ASEAN accounts for 4.5% of the world's economy in purchasing-power-parity terms. It is now ranked the seventh largest global economy, and by the end of the decade, ASEAN's combined economy is expected to outstrip that of Japan. Its GDP per capita amounted to USD3,832 at the end of 2013. The region as a whole is reported to have attracted for 2013 foreign direct investment (FDI) to the tune of USD122.38 billion, up from USD114.28 billion for 2012. For 2003, FDI into ASEAN amounted to USD29.28 billion, with an impressive 318.0% growth rate over the ten-year period ended Dec. 31, 2013.

Economic growth in the region should also be sustained next year by the inauguration at the end of 2015 of an economic community among the member states, which will combine the ten members of ASEAN in an integrated market and production base. In fact, 2016 will be the inaugural year of the ASEAN Economic Community (AEC)—a vision similar to the European Union—aimed at transforming ASEAN into a "region with free movement of goods, services, investment, skilled labour and freer flow of capital."

The ASEAN Master Plan for Connectivity (AMPC) and China's "One Belt, One Road" initiative share a number of common objectives and similarities in their conception. China has been ASEAN's largest trading partner since 2009, while ASEAN has been China's third largest trading partner since 2011. Two-way trade between ASEAN and China is expected to hit USD500 billion for 2015. Also, the accord between the ASEAN, Australia, New Zealand, China, India, Japan and Korea through the Regional Comprehensive Economic Partnership (RCEP) is expected to offer attractive opportunities to expand trade and investment.

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Using an advanced computable general equilibrium (CGE) model, a recent study¹⁸ estimated the potential gains from South Asian–Southeast Asian economic integration. The paper found that the potential for welfare gains in infrastructure- and trade barrier removal-driven integration is significant. Under ambitious although attainable hypotheses, elimination of inter-regional tariffs, reduction in non-tariff barriers by 50% and a 15% cut in South Asian–Southeast Asian trade costs, real income in South Asia and Southeast Asia would rise 8.9% (USD375 billion) and 6.4% (USD193 billion) of GDP, respectively, by 2030.

The recent decision of all ASEAN countries to join the new China-led Asian Infrastructure Investment Bank (AIIB) might pave the way for increased project financing in the region and greater financial integration. For instance, the recent deal between Thailand and China to construct the Thai section of the 7,000-km Singapore-Kunming railway link (SKRL) is an example of cooperation on mainland Southeast Asia infrastructure.

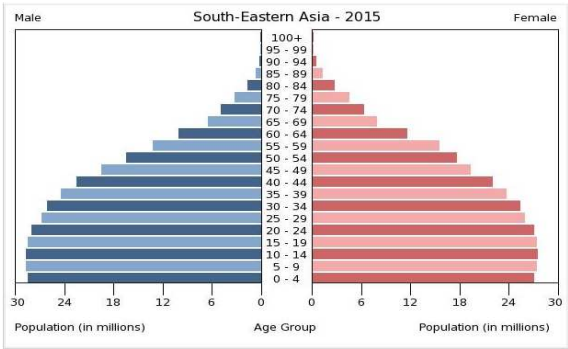
The workforce in the region, and its evolution over time, is a relevant variable to monitor. Mapping the different age cohorts (the size of each age cohort, in particular) and their changes over time, coupled with understanding the various spending cycles, can help to anticipate the impact of demographic variables on the economy and financial markets. McKinsey Global Institute forecasts that ASEAN consuming households with income higher than USD7,500 will rise from 67 million in 2010 to 125 million by 2025. Within this aggregate, emerging consumers (i.e., the cohort with annual household income in 2005-purchasing-power terms in the USD7,500-USD20,000 bracket) are forecast to rise from 33% in 2010 to 42% in 2015. At the same time, the consuming middle class (i.e., the cohort with annual household income in 2005-purchasing-power terms in the USD20,000-USD70,000 bracket) will account for 23% in 2025, rising from 14% in 2010. The growing middle class in the region means increased levels of consumption and higher contributions to the economic growth of ASEAN.

The median age in ASEAN is 27.9 years, much lower than Germany (45.3) and the US (37.8) and even lower than the world median age (28.4). The ASEAN population of about 636 million at mid-year 2015 compares with 1.37 billion for China, 357 million for North America and 452 million for Western Europe. The ASEAN population is estimated to grow 9.64% by 2025 to 697 million. On the other hand, a declining infant mortality rate, lowering to 18 (per 1,000 births) in 2025 from 25 in 2015, coupled with a stable total fertility rate (i.e., births per woman) of 2.1, means more people are expected to enter the workforce in the future.

¹⁸ Wignaraja, G., P. Morgan, M. Plummer, and F. Zhai, 2015, "Economic Implications of Deeper South Asia–Southeast Asia Integration: A CGE Approach," *Asian Economic Papers*, 14(3).

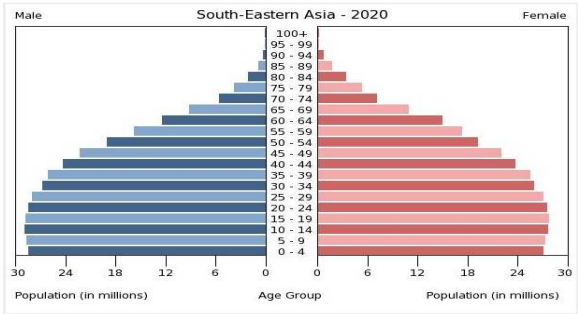
DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

FIGURE 12 ASEAN PYRAMID POPULATION GRAPH (2015)



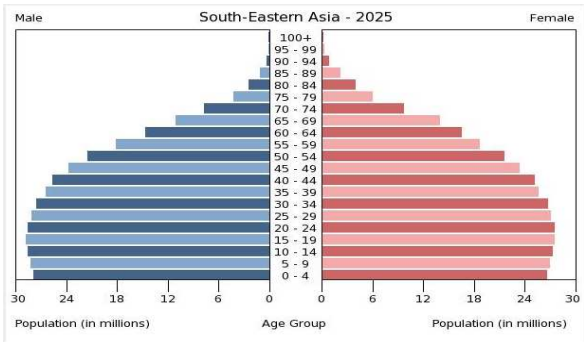
Source: US Census Bureau

FIGURE 13 ASEAN PYRAMID POPULATION GRAPH (2020)



Source: US Census Bureau

FIGURE 14 ASEAN PYRAMID POPULATION GRAPH (2025)



Source: US Census Bureau

DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

3 Risk-Return Analysis and Benchmarking

An analysis of the performance of the STOXX ASEAN Select Dividend 30 Index confirmed that its USD gross return version outperformed the underlying market-cap benchmarks for the Asian region in both absolute and risk-adjusted terms over longer-term measurement periods. A similar pattern was observed also for the shorter one-month period ended Oct. 13, 2015. It is noteworthy that the β of the ASEAN Select Dividend 30 Index for the overall measurement period came in at a reading that was significantly lower (0.71) than the market benchmark, given by the STOXX Asia Total Market Index.

The traditional risk/return annualized measure of 0.24 for the STOXX® ASEAN Select Dividend 30 USD Gross Return Index over the five-year period ended Oct. 13, 2015, compared to 0.21 for the STOXX® Asia Total Market USD Gross Return Index and the STOXX® East Asia Total Market USD Gross Return Index. Similarly, for the period since inception of the ASEAN index (Mar. 22, 2004) the risk/return annualized reading of 0.82 for the STOXX ASEAN Select Dividend 30 USD Gross Return Index compared to 0.33 for the STOXX Asia Total Market USD Gross Return Index and 0.32 for the STOXX East Asia Total Market USD Gross Return Index.

TABLE 2 STOXX ASEAN SELECT DIVIDEND 30 INDEX, STOXX ASIA TOTAL MARKET INDEX, AND STOXX EAST ASIA TOTAL MARKET INDEX, SUMMARY OF RISK/RETURN MEASURES (MAR. 22, 2004-OCT. 13, 2015, US-DOLLAR GROSS RETURN INDICES)¹⁹

| STOXX ASEAN Select Dividend 30 | | | | STOXX Asia Total Market | | | STOXX East Asia Total Market | | |
|--------------------------------|-----------------------|---------------------------|------------------------|-------------------------|---------------------------|------------------------|------------------------------|---------------------------|------------------------|
| | Annualized Return (%) | Annualized Volatility (%) | Return/Risk Annualized | Annualized Return (%) | Annualized Volatility (%) | Return/Risk Annualized | Annualized Return (%) | Annualized Volatility (%) | Return/Risk Annualized |
| 1-Month | 9.03 | 28.94 | 3.59 | 4.53 | 17.67 | 3.01 | 4.51 | 18.77 | 2.82 |
| Year to date | -12.21 | 16.34 | -1.00 | 0.95 | 14.23 | 0.08 | 1.08 | 14.60 | 0.09 |
| 2-Year | -4.46 | 12.87 | -0.35 | 1.94 | 12.21 | 0.16 | 0.73 | 12.56 | 0.06 |
| 3-Year | -1.78 | 13.17 | -0.13 | 7.69 | 12.61 | 0.58 | 7.59 | 12.98 | 0.56 |
| 5-Year | 3.64 | 14.64 | 0.24 | 3.06 | 14.17 | 0.21 | 3.32 | 14.96 | 0.21 |
| Since inception | 17.01 | 18.79 | 0.82 | 6.38 | 18.24 | 0.33 | 6.25 | 18.70 | 0.32 |
| | Max Drawdown (%) | β | | Max Drawdown (%) | | | Max Drawdown (%) | β | |
| Since Mar. 22, 2004 | -58.74 | 0.71 | | -55.63 | | | -54.83 | 0.98 | |

Source: STOXX

The charts below plot indexed performance, 20-day annualized rolling window log-return volatility, correlation and maximum drawdown of the STOXX ASEAN Select Dividend 30 USD Gross Return Index, the STOXX Asia Total Market USD Gross Return Index and the STOXX East Asia Total Market USD Gross Return Index for the period Mar. 22, 2004-Oct. 13, 2015.

The stellar 515.60% indexed performance in US-dollar gross return terms (with an annualized log return volatility of 18.79%) of the STOXX ASEAN Select Dividend 30 Index sets against the 104.51% of the

¹⁹ The STOXX ASEAN Select Dividend 30 Index was launched on Mar. 27, 2015 (hereinafter, launch date). Index values calculated for any date or period prior to the index's launch date are considered backtested. β in Table 1 is computed taking into account the STOXX Asia Total Market Index as the market benchmark and a risk-free rate given by the three-month US T-bill total return index; returns for the one-month and year-to-date periods are period returns and are not annualized.

DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

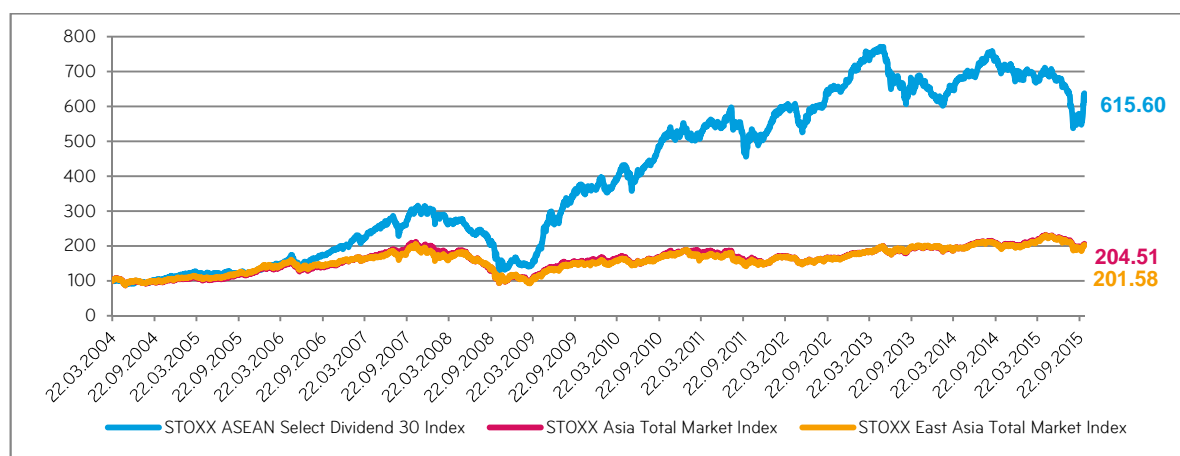
STOXX Asia Total Market Index (with an annualized log return volatility of 18.24%) and the 101.58% of the STOXX East Asia Total Market Index (with an annualized log return volatility of 18.70%).

For the same period, the STOXX ASEAN Select Dividend 30 Index recorded a maximum drawdown of 58.74%, while the STOXX Asia Total Market Index and the STOXX East Asia Total Market Index posted 55.63% and 54.83%, respectively.

The STOXX ASEAN Select Dividend 30 Index showed a mixed correlation pattern for the overall period with both the STOXX Asia Total Market Index and the STOXX East Asia Total Market Index. Except for a few noticeable exceptions during the period of volatility clustering in the last summer, since the end of 2012 the correlation of the STOXX ASEAN Select Dividend 30 Index with the two Asian benchmarks appeared to decrease from historical records, staying below 80% in a 20%-70% range, also with negative spikes.

The STOXX ASEAN Select Dividend 30 Index underperformed in US-dollar gross-return terms year to date at the Oct. 15, 2015 close against both the STOXX Asia Total Market Index (-1,316 basis points) and the STOXX East Asia Total Market Index (-1,329 basis points). The strengthening pattern of the US dollar in FX markets also accounted for the underperformance, given the higher weightings of Southeast Asian countries in the STOXX ASEAN Select Dividend 30 Index compared to the traditional Asian benchmarks. In fact, year to date at the Oct. 15, 2015 close the greenback appreciated 5.79%, 19.43%, 9.90% and 8.30% against the Singapore dollar, the Malaysian ringgit, the Indonesian rupiah and the Thai baht, respectively. More recently, FX market sentiment on Asian currencies improved amid muted expectations about the imminent start of a tightening cycle by the US Fed. Recent weak US retail sales figures, declining producer prices and disappointing jobs data fueled expectations that the long-awaited interest rate increase by the US Fed will be put off to next year, prompting investors to unwind short positions on Asian currencies.

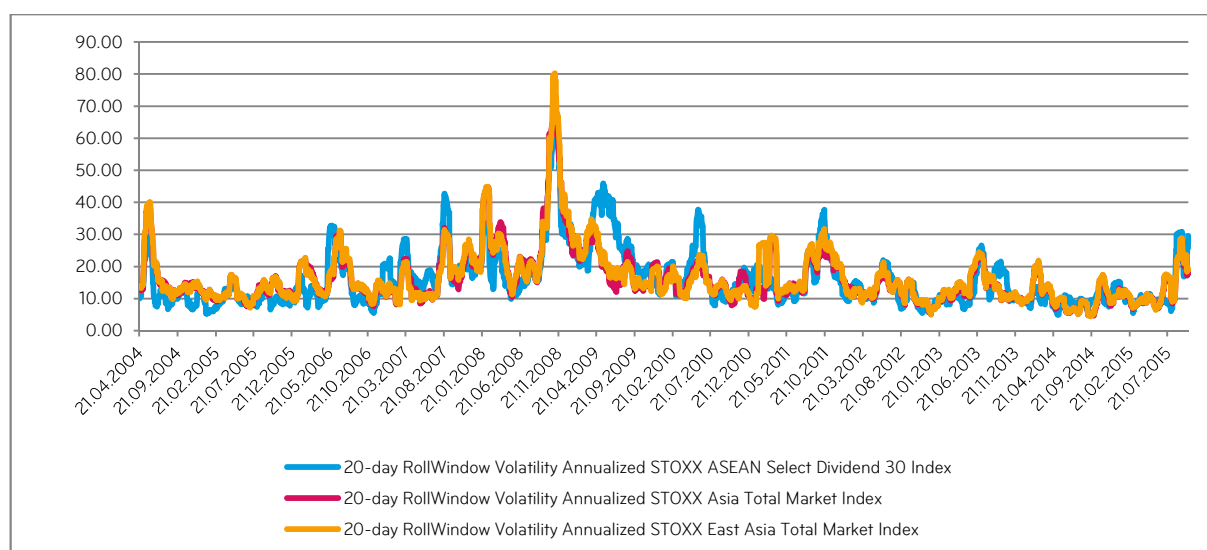
FIGURE 15 STOXX ASEAN SELECT DIVIDEND 30, STOXX ASIA TOTAL MARKET INDEX AND STOXX EAST ASIA TOTAL MARKET INDEX, INDEXED PERFORMANCE (MAR. 22, 2004-OCT. 13, 2015, US-DOLLAR GROSS RETURN)



Source: STOXX

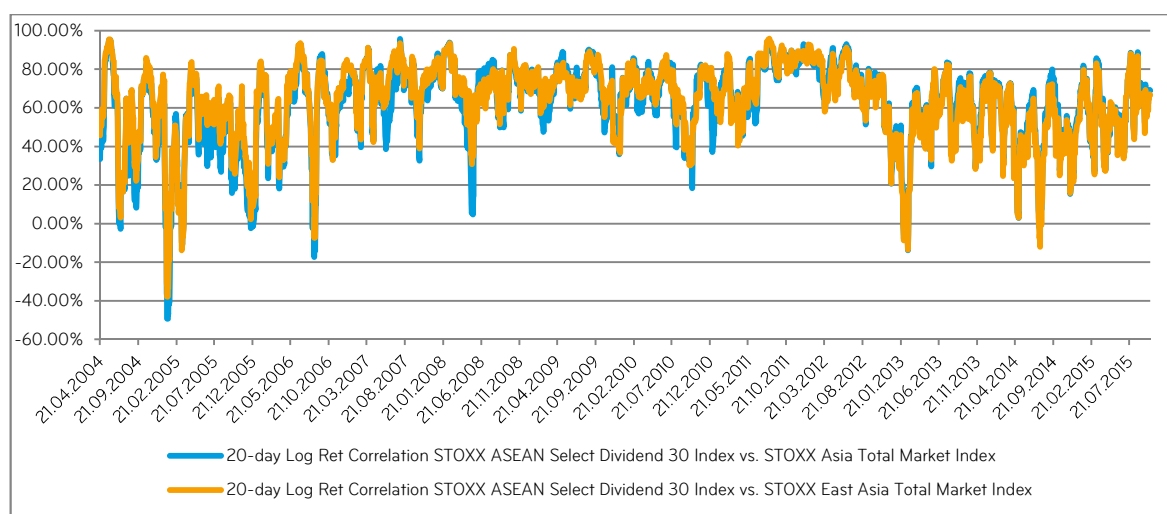
DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

FIGURE 16 STOXX ASEAN SELECT DIVIDEND 30, STOXX ASIA TOTAL MARKET INDEX AND STOXX EAST ASIA TOTAL MARKET INDEX, ROLLING WINDOW LOG RETURN VOLATILITY (APR. 21, 2004-OCT. 13, 2015, US-DOLLAR GROSS RETURN)



Source: STOXX

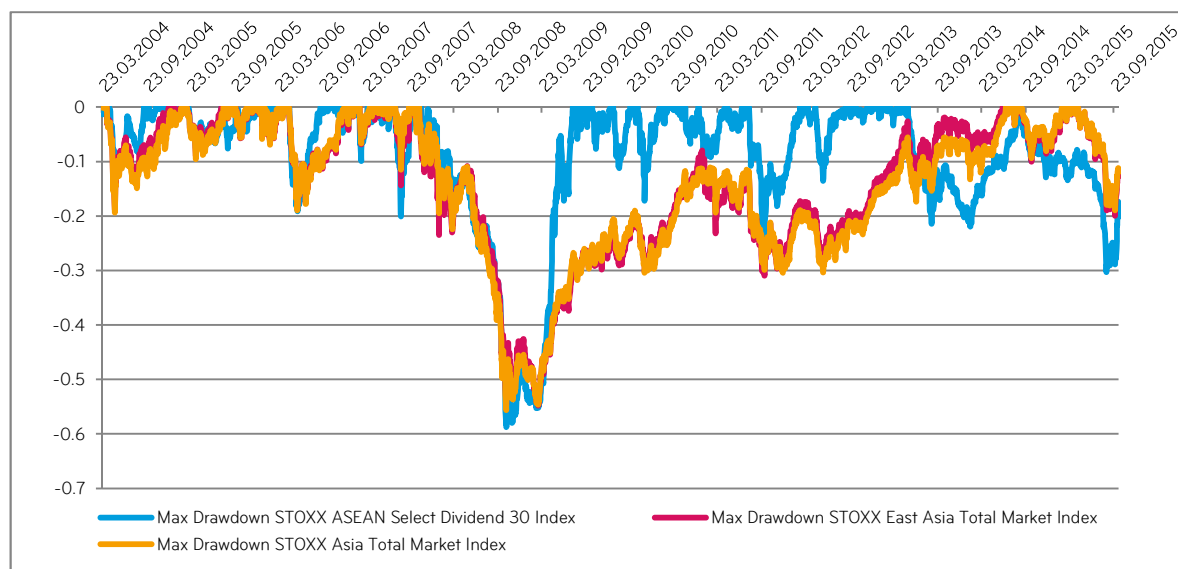
FIGURE 17 STOXX ASEAN SELECT DIVIDEND 30, LOG RETURN CORRELATION (APR. 21, 2004-OCT. 13, 2015, US-DOLLAR GROSS RETURN)



Source: STOXX

DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

FIGURE 18 STOXX ASEAN SELECT DIVIDEND 30, STOXX ASIA TOTAL MARKET INDEX AND STOXX EAST ASIA TOTAL MARKET INDEX, TRAILING MAXIMUM DRAWDOWN (MAR. 22, 2004–OCT. 13, 2015, US-DOLLAR GROSS RETURN)



Source: STOXX

4 Factor Analysis

Figure 19 below details the characteristics of a holdings-based performance analysis in US-dollar terms using the Style Research performance attribution module on the STOXX ASEAN Select Dividend 30 Index compared to the wider Asia Pacific benchmark for the period Feb. 24, 2015–Sep. 30, 2015.

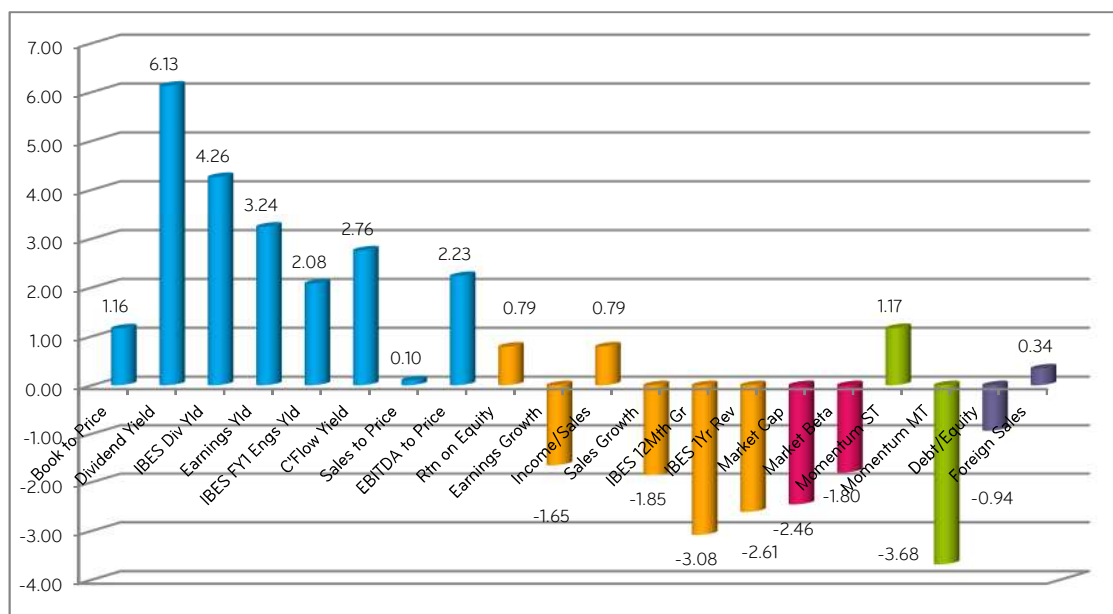
The STOXX ASEAN Select Dividend 30 Index featured a value strategy; it showed, among others, a portfolio tilt toward the dividend yield (+6.13%), book to price (+1.16%), earnings yield (+3.24%), cash flow yield (+2.76%) and EBITDA to price (+2.23%) factors. The same value portfolio tilt was also confirmed against two forward-looking measures—the Thomson Reuters I/B/E/S consensus year 1 forecast annual earnings per share divided by the share price (+2.08%) and the Thomson Reuters I/B/E/S consensus year 1 forecast annual dividend per share divided by the share price (+4.26%).

For the dividend yield factor, the three largest contributions came from Indocement Tungaal Prakarsa Tbk PT (0.44%), Keppel Corp. Ltd. (0.41%) and Vale Indonesia Tbk PT (0.39%).

Among the growth factors, while portfolio tilts to return on equity (+0.79%) and income to sales (+0.79%) contributed positively to the period return, earnings growth (-1.65%), sales growth (-1.85%) and the forward-looking Thomson Reuters I/B/E/S consensus forecast growth of earnings over the next twelve-month period (-3.08%) detracted from performance for the period.

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FIGURE 19 PERFORMANCE ATTRIBUTION, STOXX ASEAN SELECT DIVIDEND 30 INDEX VERSUS ASIA PACIFIC BENCHMARK (US DOLLAR GROSS RETURN, FEB. 24, 2015-SEP. 30, 2015)



Source: Style Research on STOXX data

In risk-attribution terms, the largest sources of tracking variance came from currency (10.09%), sector (9.52%) and market (81.99). Within the market factor, Indonesia had the largest contribution (9.19%) to market risk, showing an active weighting of 22.89% compared to the market benchmark. Malaysia (+3.14%) and Thailand (+2.26%) were the runners-up, with active weightings of 21.59% and 12.06%, respectively. Notwithstanding a currency effect that weighed on risk because of the recent appreciation pattern of the US dollar, exposure to the three countries appeared not to pay off in performance terms over the measurement period. With a forward-looking perspective, active weightings to Indonesia, Thailand and Malaysia may return positive performance beyond the short term, since those countries are expected to contribute significantly in 2016 to re-establishing a pattern of solid growth in the ASEAN region.

As expected, given the depreciation pattern of Asian currencies against the US dollar since late spring 2015, an analysis of the currency contribution for the overall period based on the Brinson attribution model by market showed that the cumulative currency effect deteriorated from May 2015. The cumulative currency effect dropped to minus 6.86% at the end of September, with active exposure to Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam contributing to various extents to the cumulative result. Cumulative currency contribution for the same countries stood at minus 2.21%, minus 3.79%, minus 0.40%, minus 0.83%, minus 1.16% and minus 0.28%, respectively.

As highlighted above, the STOXX ASEAN Select Dividend 30 Index showed significant exposure—with the expected sign—to some pure factors. At the same time, in some cases an index may also have had significant exposure to factors other than the intended factors. For instance, the STOXX ASEAN Select

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Dividend 30 Index had a significant exposure to a small value portfolio (25.92%) as seen by its positive exposure to the size factor in the same percentage. Institutional investors should be aware of these potential secondary exposures and manage them appropriately. The wider Asia Pacific exposure to the small value factor stood at 9.98% for the same period.

While the STOXX ASEAN Select Dividend 30 Index had a positive exposure to a short-term momentum factor (-1.17%), it showed a negative exposure to a medium-term momentum factor (-3.68%), which detracted from the style contribution. The latter might be expected in light of the shorter time horizon of the performance attribution analysis. The STOXX ASEAN Select Dividend 30 Index had a lower market beta (0.83) than the wider Asia Pacific benchmark for the period analyzed.

Among the industry sectors —posting overall a positive 9.52% sector-risk contribution—a positive exposure to oil & gas (+4.05% contribution with an active weighting of 8.43%), basic materials (+4.03% contribution with an active weighting of 7.60%), utilities (+1.68% contribution with an active exposure of 7.28%) and industrials (+1.42% contribution with an active exposure of 5.07%) accounted the most for the negative active return recorded for the period (to a cumulated reading of -9.79%). Conversely, the interest rate-sensitive financials sector of the index (-1.58% contribution with an active weighting of -9.64%) had a negative sector-risk contribution throughout the period.

5 Conclusions

Although a wide body of academic literature has analyzed the importance of dividends and the relationship existing between high dividend yields and attractive investment returns over long-term time horizons, the results are controversial, especially in light of the most recent findings.

The predictability of stock returns from dividend ratios has long been debated in financial literature. Despite that the efficient market hypothesis concludes that future stock returns should be completely unpredictable, a number of studies have appeared to provide empirical evidence that dividend yield is significant in explaining expected stock returns. Generally speaking, dividend yield has shown some statistical significance in predicting annual equity premia.

In an ultra-low-interest-rate environment, a disciplined equity income strategy that weights sustainable dividend growth could be part of an asset allocation strategy for long-term investors. Fundamental selection of stocks that post consistent cash dividend coverage and sustainable dividend growth rates (which are generally accompanied by increasing operating free cash flows) could enable investors to achieve exposure to companies that can sustain and increase dividends over time.

Despite recently suffering from China-driven market turmoil in the Asian region and capital outflows-induced effects arising from expectations of the start of a tightening cycle by the US Fed, ASEAN continues to offer interesting investment perspectives. An improved outlook in the region appears to be sustained by a mix of rosier expectations about corporate fundamentals, macro drivers and demographic variables.

An analysis of the performance of the STOXX ASEAN Select Dividend 30 Index confirmed that its US-dollar gross-return version outperformed the underlying market-cap benchmarks for the Asian region in

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both absolute and risk-adjusted terms over longer measurement periods. A similar pattern was observed for the shorter one-month period ended Oct. 13, 2015.

It is noteworthy that the β of the ASEAN Select Dividend 30 Index for the overall measurement period came in at a reading that was significantly lower (0.71) than the market benchmark given by the STOXX Asia Total Market Index.

The underperformance observed for the STOXX ASEAN Select Dividend 30 Index in US-dollar gross-return terms year to date at the Oct. 15, 2015 close against both the STOXX Asia Total Market Index (-1,316 basis points) and the STOXX East Asia Total Market Index (-1,329 basis points) was also attributable to a currency effect. In fact, the strengthening pattern of the US dollar in FX markets accounted for the underperformance, given the higher weightings of Southeast Asian countries in the STOXX ASEAN Select Dividend 30 Index compared to the traditional Asian benchmarks.

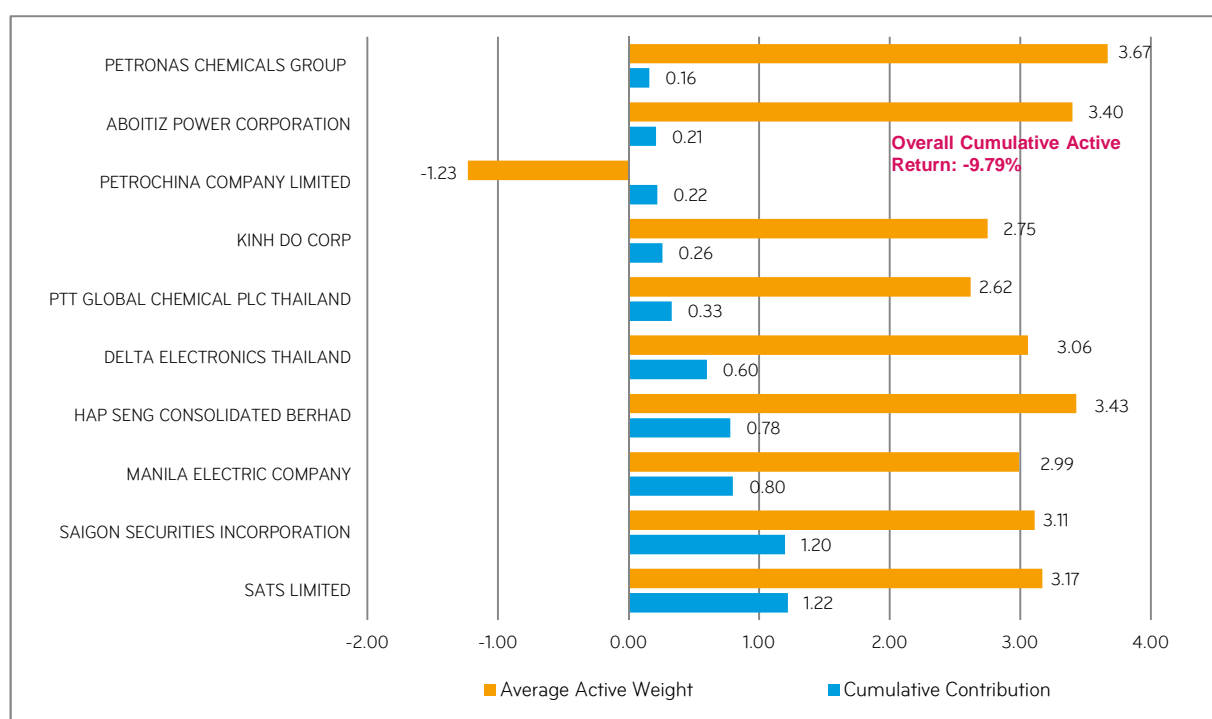
Results of the performance attribution analysis on the STOXX ASEAN Select Dividend 30 Index versus the wider Asia Pacific benchmark showed that the index featured a value strategy reflected in its portfolio tilt toward a number of fundamental measures. In particular, the dividend yield (+6.13%), book to price (+1.16%), earnings yield (+3.24%), cash flow yield (+2.76%) and EBITDA to price (+2.23%) factors posted significant results for the period.

A value style orientation was also confirmed when the analysis on a country-adjusted basis was run in order to verify whether there were genuine style orientations or whether factor tilts were mostly due to country characteristics. Despite lowering from the unadjusted style exposure analysis, the dividend yield (+4.90%) still posted a significant contribution for the period. In other cases, such as for the book to price (+1.49%), cash flow yield (+3.22%), earnings yield (+3.37%) and EBITDA to price (+2.73%) factors, the value tilt was confirmed by higher style exposure readings.

DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

Appendix A

FIGURE 20 TOP 10 STOCK CONTRIBUTORS TO ACTIVE RETURN, STOXX ASEAN SELECT DIVIDEND 30 INDEX VERSUS ASIA PACIFIC BENCHMARK (US DOLLAR GROSS RETURN, FEB. 24, 2015-SEP. 30, 2015)



Source: Style Research on STOXX data

DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

FIGURE 21 PERFORMANCE ATTRIBUTION HEAT MAP, STOXX ASEAN SELECT DIVIDEND 30 INDEX VERSUS ASIA PACIFIC BENCHMARK (COUNTRY ADJUSTED, US DOLLAR GROSS RETURN, FEB. 24, 2015-SEP. 30, 2015)

| | | 2015 | 2015 | 2015 | 2015 | 2015 | 2015 | 2015 | 2015 |
|------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | Sep | Aug | Jul | Jun | May | Apr | Mar | Feb |
| VALUE | Book to Price | 1.16 | 3.30 | 1.14 | 1.27 | 1.42 | 1.34 | 1.06 | 0.25 |
| | Dividend Yield | 6.13 | 6.17 | 6.25 | 6.49 | 6.70 | 6.71 | 5.92 | 2.87 |
| | IBES Div Yld | 4.26 | 5.20 | 5.12 | 5.47 | 5.75 | 5.34 | 4.59 | 2.67 |
| | Earnings Yld | 3.24 | 3.29 | 3.25 | 3.44 | 3.48 | 3.47 | 3.01 | 1.21 |
| | IBES FY1 Engs Yld | 2.08 | 2.83 | 1.63 | 2.70 | 3.05 | 2.86 | 2.34 | 0.13 |
| | C'Flow Yield | 2.76 | 3.84 | 2.62 | 2.80 | 2.91 | 2.80 | 2.44 | 1.73 |
| | Sales to Price | 0.10 | 0.38 | 0.16 | 0.24 | 0.37 | 0.25 | -0.08 | -0.64 |
| | EBITDA to Price | 2.23 | 2.26 | 2.19 | 2.27 | 2.33 | 2.17 | 1.31 | 0.19 |
| GROWTH | Rtn on Equity | 0.79 | 0.96 | 0.89 | 0.98 | 0.95 | 0.88 | 0.86 | 0.77 |
| | Earnings Growth | -1.65 | -1.33 | -1.38 | -1.50 | -1.62 | -1.61 | -1.47 | -2.27 |
| | Income/Sales | 0.79 | 0.47 | 0.41 | 0.48 | 0.46 | 0.29 | 0.34 | 0.47 |
| | Sales Growth | -1.85 | -1.69 | -1.74 | -1.83 | -2.02 | -1.73 | -2.04 | -1.55 |
| | IBES 12Mth Gr | -3.08 | -2.44 | -2.54 | -2.77 | -2.46 | -2.29 | -2.36 | -0.12 |
| | IBES 1Yr Rev | -2.61 | -2.67 | -2.19 | -1.66 | -0.53 | -0.14 | -0.51 | -2.51 |
| RISK | Market Cap | -2.46 | -2.37 | -2.35 | -2.37 | -2.32 | -2.39 | -2.38 | -2.33 |
| | Market Beta | -1.80 | -1.31 | -1.43 | -1.76 | -1.81 | -1.52 | -1.67 | -0.53 |
| MOM ENTU M | Momentum ST | 1.17 | 0.19 | -1.01 | -2.32 | -3.63 | -4.63 | -4.35 | -3.90 |
| | Momentum MT | -3.68 | -3.45 | -3.77 | -4.16 | -4.38 | -4.77 | -4.21 | -2.66 |
| OTH ER | Debt/Equity | -0.94 | -0.86 | -0.97 | -0.96 | -0.93 | -1.06 | -0.92 | -0.62 |
| | Foreign Sales | 0.34 | 0.19 | 0.34 | 0.40 | 0.52 | 0.76 | 0.51 | 0.88 |

Source: Style Research on STOXX data

DIVIDEND AS A GLOBAL INVESTMENT FACTOR–THE STOXX ASEAN SELECT DIVIDEND 30 INDEX

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