Denali Advisors

Quarter II, 2019 Performance Review
Denali Network Value International Small

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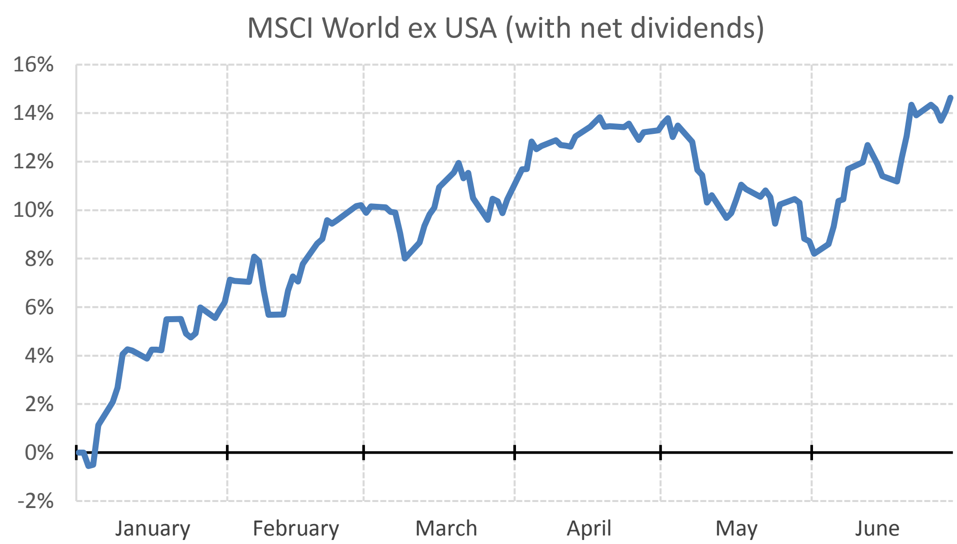
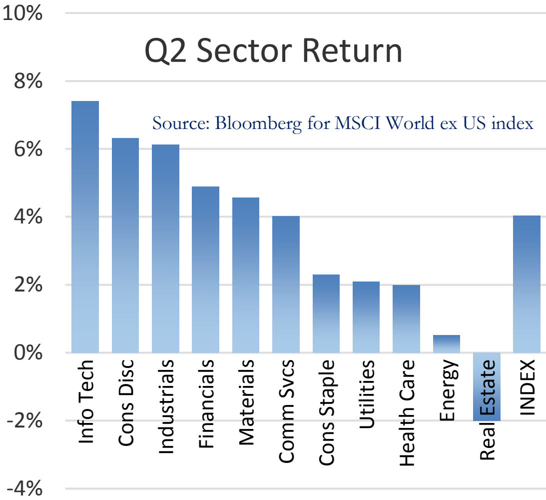
International Markets

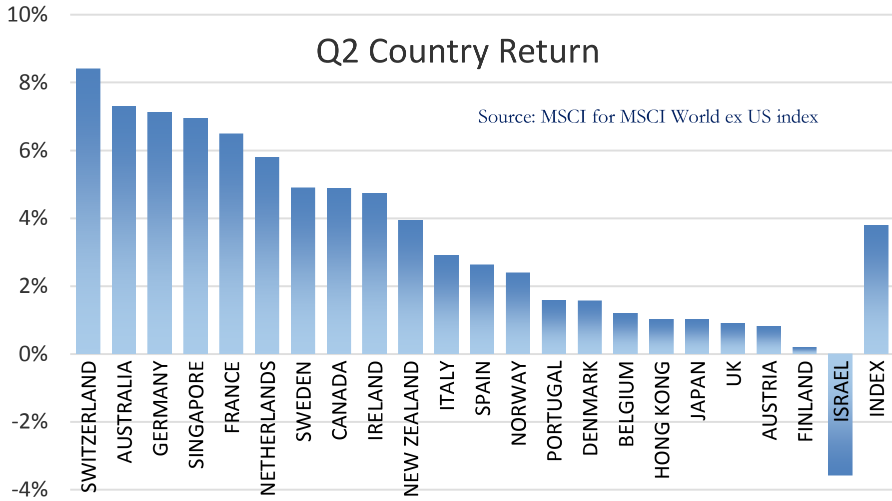
The strong first quarter rally in the international equity markets continued through the first half of April, with prices then reaching a plateau. In May, however, prices plunged as prospects for resolution of the trade dispute between the U.S. and China seemed to recede, and the threat of trade tariffs was introduced in other disputes. In June, prices rebounded sharply higher again as U.S.-China talks were reported to be back on, earnings turned up and investors came to expect monetary easing measures from the central banks In the end the MSCI World ex US index gained another 3.79% for the quarter, bringing the first half 2019 gain to 14.64%. The index, though, is still more than 11% short of its historic high in early 2018.



The fall in long term interest rates in the quarter again supported increased valuation multiples, and also increase the theoretical relative value of stocks whose price is based more on earnings further in the future (growth stocks), which tend to have lower current earnings/price ratios. The Growth style index again outperformed Value by about 4% in the quarter (a much wider margin than in the U.S. market), leaving Growth ahead by about 8.5% for 2019. The Small Cap index trailed the large caps by about two percent for the quarter.

Differences in sector performance were wide relative to the market return this quarter. Technology and the cyclical sectors outperformed the defensive/income-oriented sectors with a distinct margin. Energy also underperformed after last quarter's strong gain. Real Estate fell despite the large decline in long-term interest rates. Real estate investment was hurt by new rent control laws in Germany, and in Hong Kong by imposition of capital export controls in China and increasing risk perceptions from civil unrest. One notable effect of the fall in rates was to boost Insurance companies (which tend to have large bond holdings) and consumer durables producers (allowing easier consumer financing); these were among the strongest industry groups for the quarter. Within the small cap index, Utilities and Real Estate did much better (less weight in Japan and Hong Kong), while Consumer Discretionary did much worse (more in Britain).





With economic data improving a bit, the euro zone was the best-performing region in the quarter, with Germany, France and the Netherlands in the top tier, though southern Europe underperformed. Switzerland was the top market, boosted by its strong currency and formidable insurance and luxury goods companies. Australia, heavily concentrated in Financials and Materials, performed strongly, and Canada outperformed though weighed on by Energy. Sweden's concentration in capital goods helped it outperform, while the other Nordic markets were weak. Hong Kong underperformed in Q2, mainly due to the negative performance of its Real Estate and to political turmoil, while Singapore, concentrated in Financials (and likely recipient of capital leaving Hong Kong), was a top performer. Although Japan has been largely out of the headlines, it could be significantly affected by increased U.S. tariffs, and is also heavily exposed to emerging markets, giving rise to weak stock performance. Britain has been very much in the headlines, and the breakdown of the Brexit process placed its equities among the bottom performers in Q2. Israel was the only market to post a loss for the quarter, mostly due to drug maker Teva – Israel had the top return among small caps.

Denali Performance Analysis

	Q2 2019		One Year		Since inception		
Strategy	Net	Bench	Net	Bench	Net	Bench	months
Network Value International*	0.53%	3.79%	-0.01%	1.28%	8.00%	6.06%	43
Network Value International Small*	2.80%	1.76%		-6.17%	-2.83%	-5.37%	9
Network Value Int'l Small Value*	1.98%	0.93%		-6.40%	5.19%	2.25%	8

*Please refer to the disclosures for the Denali Network Value International, Denali Network Value International Small and Denali Network Value International Small Value Composites, and Denali Network Value International Index, on page 8.

Denali's large and mid cap Network Value International strategy fell well short of its benchmark in the second quarter, but our International Small cap composites outperformed.

- Our **Network Value International Small** composite gained 2.80% in the period after fees, while the benchmark MSCI World ex US Small Cap Index gained 1.76% (net of tax withholding), an active return of 1.04%.
- For the past nine months, which is the period since inception for this composite, Denali Network Value International Small lost 2.83% net of fees vs. 5.37% (after withholding) for the benchmark, outperforming by 2.54%.
- Our NV International Small Value portfolio outperformed by 2.94% in the eight month period since its inception.
- For the forty-three months since its inception, Denali Network Value International has returned 8.00% annualized after fees, outperforming the index's 6.06% gain (net of withholding) by 1.94%.

One of the most important effects on returns for the quarter was once again that stocks with less expensive valuations relative to earnings were broadly outperformed by those priced at higher multiples. The fall in long-term rates again played a part in this, as mentioned above. Since our portfolios are concentrated in stocks with higher E/P ratios, this presented a fundamental headwind to our performance. In fact, our overweight to stocks in the highest quintile of E/P and underweight to those below the median quintile by itself would account for a 1.7% drag on returns, which our strategy overcame through successful stock selection within those valuation quintiles.

This earnings yield effect acted strongly through our **Network Value Index***, a basic component of our strategy that emphasizes stocks with higher earnings and lower liquidity. The NV Index outperformed the Value style index, but still trailed the benchmark by about 70 bp, with the other elements of our forecasting and portfolio construction process responsible for our positive active return

Our investment process combines two long-horizon return forecast models based on fundamental effects that tend to work in the same direction over time, with two short-horizon models that take account of trending or cyclical effects which might impact returns in the short-term. Our composite stock-level relative return forecast incorporating these four elements produced somewhat negative predictive performance for the second quarter among international small caps, but better results than among large caps.

Long term:

- The cross-sectional predictive performance of the **Network Value Alpha** forecast model was somewhat negative in Q2, reflecting broad underperformance for value stocks, particularly those with lower P/E ratios.
- The predictive performance of our **intrinsic value** forecast was essentially neutral in the quarter, affected by the general negative performance of Value but helped by the influence of long-term growth forecasts.

Short term:

- Our **detailed estimate revision** forecast produced modestly positive results in Q2.
- The **Characteristics Trend** model also had basically neutral forecast results in the quarter. With four major market reversals in the past 9 months, there was significant disruption to continuity in factor return trends.

Characteristic Trend Model Factors:
The net effect of our exposures to the "style" factors included in the Characteristics Trend model was negative for the quarter.

- Our exposure to higher earnings-to-price ratios had the most negative impact on active return for the quarter, consistent with the above-mentioned underperformance of higher e/p stocks.
- One trend that has been very persistent is the negative effect of exposure to stocks with higher sales-to-price ratios. Our exposure to this factor had the second most negative impact in the quarter, but our continuing correct forecast of this negative factor return helped us mitigate our adverse exposure to this factor.
- Our exposure to higher cash-flow-to-price ratios also had a negative impact.
- Surprisingly, in this analysis our exposure to higher book-to-price ratios actually had a positive impact in the quarter, net of the effects of our other model factors.
- Our higher return on equity had a positive impact on performance, as we correctly forecast the positive return for this factor.

Denali Network Value International Small Portfolio Characteristics as of 6/30/2019*

Characteristics:	NV Intl Small	MSCI World ex US Small	Relative
Wgt Avg Mkt Cap (Mil $)	1,830	2,490	-27%
30 Day Dollar Weighted Volume (Mil $)	63	258	-76%
P/E trailing 12m	8.0	14.7	-46%
P/E forward 12m	9.8	14.7	-33%
# Names	163	2562	-94%

The portfolio's exposures to our Country Group factors also had a negative impact in the second quarter. Our overweight in Asia ex-Japan was the biggest detriment. Our Industry Group factor exposure impacts were about neutral for the quarter. Our positive exposure to the Insurance industry group was the biggest positive contributor. Our negative exposures to Materials and Semiconductors were detrimental. Our underweights to Commercial & Professional Services and to Software were negatives, but were mitigated by correct forecasts of outperformance, eventually helping turn our Software exposure positive.

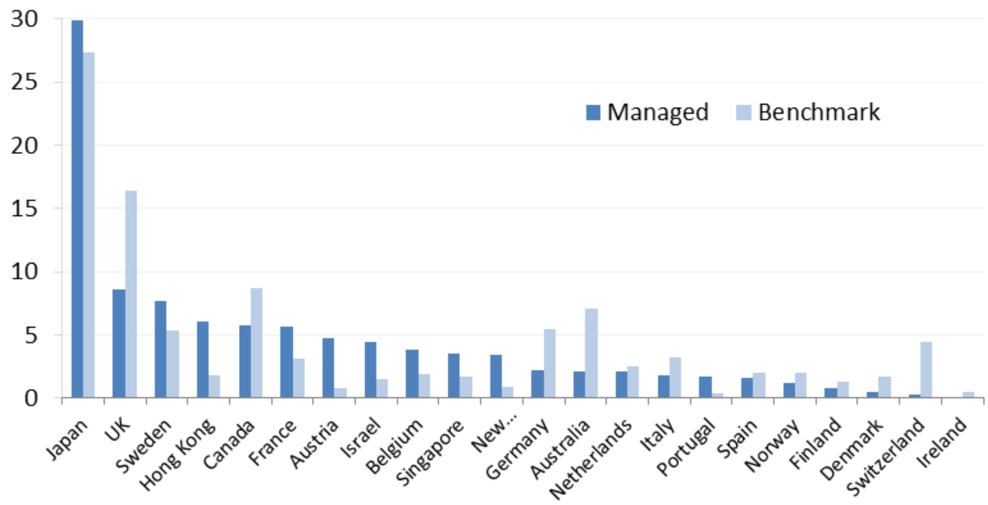
Barra's linear factor attribution model shows that for Q2 the net effect of our systematic factor exposures were negative, with the most detrimental impacts from our positive exposures to Book-to-Price (Value) and Earnings Yield and our negative exposure to Momentum. However, the positive impact from our **lower average liquidity** was actually the strongest individual factor effect. Our exposures to industry factors were seen as neutral and to country factors as negative. However, positive specific asset selection was seen as more important than systematic effects (i.e. the model's systematic factors don't explain our outperformance).

Our active allocation among countries accounted for about 50 bp of our active performance for the quarter (in contrast with the Barra factor analysis), with the balance due to outperformance within countries. We benefited from overweighting Austria, Belgium, France, Sweden and Israel, and underweighting Britain. Underweighting Switzerland and overweighting Hong Kong detracted from returns. Our positive impact from stock selection within countries was strongest in Canada, with successful selection also in Israel, Italy and

Germany. We had negative selection results in New Zealand and in Austria, Belgium, the Netherlands and Portugal.

Denali Network Value International Small Country Weights
as of 6/30/2019*, sorted by active weight

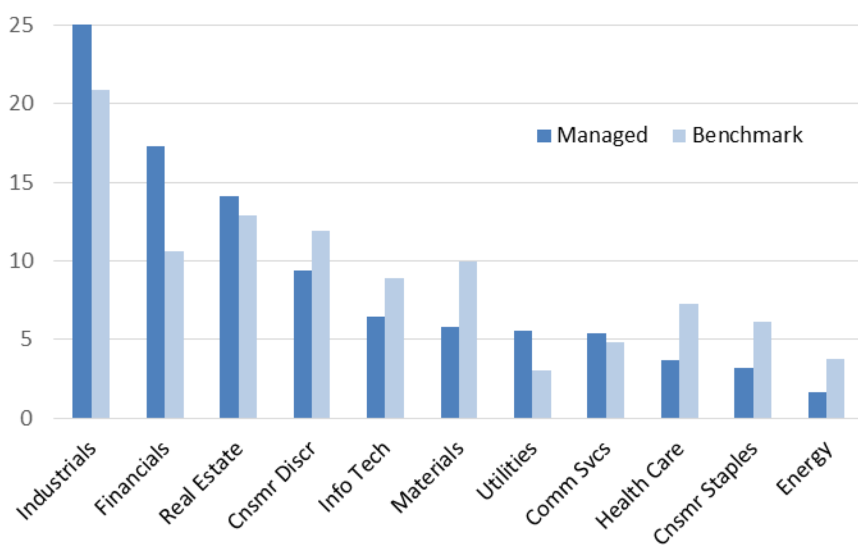
*Please refer to the Denali Network Value International Composite disclosure at the end of this commentary.



Our portfolio's active sector positioning was basically neutral to performance in Q2. We were hampered by underweighting the best performing sector, Technology, but we benefited from underweighting the Consumer sectors. Our outperformance arose from positive stock selection results within sectors. The biggest positive impact from stock selection came from Financials and Utilities, with success also in Technology and Real Estate. We had negative results from stock selection within Industrials and Health Care.

Denali Network Value International Sector Weights
as of 6/30/2019, sorted by active weight

Please refer to the Denali Network Value International disclosure at the end of this commentary.



- In the **Industrial** sector, our most significant underperformers were Japanese holdings.

- In **Materials**, both the biggest contributors and biggest detractors were forest products companies.
- In **Real Estate**, Swedish commercial property firms were our top contributors.
- **Technology** was one sector where our Japanese holdings outperformed.
- Within the **Financials**, our overweight to insurance added to active returns.

Economy & Outlook

Coming into the second quarter, the overall growth rate for the developed world economy stabilized somewhat as growth in the U.S. remained strong, but the focus of slowing shifted from Europe to Asia. According to *The Economist*'s latest quarterly estimates for year-on-year growth, Asia ex Japan again decelerated the most, and is now the slowest-growing region behind Japan, where growth picked up to just below 1%. Australia also slowed, to just under 2%, and Canada to 1.3%. Growth in the euro zone remained flat at 1.2%. Britain accelerated in spite of Brexit, to 1.8%, and Switzerland also quickened. The Nordic countries remained among the faster growers, while Israel had the fastest expansion, eclipsing the U.S. at 3.3%. Growth in the biggest emerging markets slowed significantly, with Korea and the BRICS countries all showing growth slower by at least a half percentage point, except for China, where growth was reported down by 0.2% to 6.2%. However, those numbers may be, um, smoothed, especially judging by conditions in the "overseas Chinese" economies.

The unemployment rate across the OECD countries remained below 5% in Q1, but ticked up slightly from its historic low the previous quarter. Corporate profits in the international developed markets returned to growth in the second quarter, with reported earnings for companies in the MSCI World ex-US Index increasing about 4% from the year ago quarter and earnings over the past year up by about 3% over the year before in dollar terms. Investors were intensely focused on central banks' monetary policy stances. The ECB again basically pledged to do whatever it takes to keep growth alive in the euro zone, and the Fed actively communicated that it would be ready to cut rates if required to compensate for slower economic activity abroad. As a result, long term bond yields fell and converged in all major government bond markets. German bund yields set an all-time low of -33 bp. Some of the peripheral European yields sank the most, with Spain and Portugal declining to below 0.5%. Italian rates also declined but remained the highest among developed markets at 2.1%, just above the US yield of 2.0%. Oil prices fluctuated across a wide range between $51 and $67 per barrel of U.S. benchmark crude as global trade and demand concerns, as well as tensions with Iran, waxed and waned, finishing down 3% for the quarter at $58. The U.S. dollar's foreign exchange rate remained fairly stable and ended the quarter almost unchanged for 2019.

Looking forward, consensus growth estimates for the developed world for 2019 remain at 1.8%, down from 2.3% for 2018, with 1.6% projected for next year. Excluding the U.S., this gives around 1.2% growth in the rest of the developed world for this year. Forecasts for the biggest economic regions are clustered between 1.0 and 1.6% (Japan, Britain, Canada, euro zone and Switzerland). Asia ex-Japan, the Nordic countries and Australia are expected to grow a bit faster, but U.S. growth estimated around 2.5% looks exciting by comparison. Only Israel is forecast to grow faster, just above 3%. Among the largest emerging economies, only India and China are seen growing faster than the developed world, at 6.7 and 6.2%, and these estimates are falling. China's trade with the U.S. has actually begun to contract, which would seem to make it more likely that there will be some resolution to the trade wrangling before too long; the idea that the Chinese can just wait out the dispute seems unrealistic. We also now seem likelier to have a resolution to Brexit one way or the other within months. If EU leaders will now focus on negotiating post-Brexit relations that are good for Europe (rather than just bad for Britain) this could provide a much needed impetus for investment on both sides of the English Channel. In sum, scenarios for improvements in currently weak overseas economies are visible.

For now, the picture is of synchronized slow growth outside the U.S. This economic environment, with cheap financing and many international firms' exposure to faster American economic growth, should still allow for growth in corporate profits. Earnings growth for the MSCI World ex US index is forecast at 10% for Q3 over the previous year and 11% for 2019 as a whole. Interestingly, growth for small cap companies is projected to be even stronger.

Mario Draghi, the outgoing European Central Bank president, has recently made some very pessimistic comments, saying economic conditions in Europe are getting worse and worse. This seems incongruous with the strong recent returns of European stock markets, up 16% as a whole this year. This dissonance could suggest that many investors disagree with this view, or else that the stock run-up has really been strongly driven just by the collapse in interest rates. We continue to expect that at some future time, rates will be allowed to revert to more normal levels. This would present a headwind to equity returns globally, but perhaps more so in the U.S., since valuation multiples in international developed markets remain lower relative to the American market. But this no longer seems a near-term probability. For now, though, the continued wide spread between U.S. and foreign rates may push up the dollar, creating a drag for U.S. investors in international equities.

Given the strong link between interest rates and the theoretical valuations of Growth stocks, it was not surprising that the big fall in rates this year should drive Growth outperformance. But we would be surprised to see that driver continue to operate. We are encouraged to see the Growth-Value spread narrowing in the U.S. With some rate stability, we anticipate an environment with earnings growth, equity returns and volatility levels all more in line with historically typical levels -- and a normalizing environment is generally friendly to strategies based on relative valuations. Denali's constant focus on stocks with valuations solidly supported by earnings and the potential for increased liquidity should be well-suited.

Disclosures:

Data sourced from S&P CapitalIQ, Bloomberg, and FTSE Russell. Returns are presented net of management fees and include the reinvestment of all income. Past performance is not indicative of future results. Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. Denali was established in 2001 and manages equity and alternative assets for primarily institutional clients. The U.S. dollar is the currency used to express performance. Leverage is not used.

Denali Network Value International: Composite consists of fully discretionary International (large and mid cap) portfolios that are designed to track the Denali Network Value International index, as created by Denali using the largest companies from 22 countries. Results are compared against the returns of the MSCI World ex-U.S. Index and intended to outperform this benchmark while maintaining similar sector, industry and security characteristics. The NV International portfolio construction is based on the analysis of earnings, liquidity and other characteristics of selected large and mid cap companies from developed international stock markets (e.g. the markets represented in the MSCI World ex-U.S. Index). The Denali NV International Composite was created November 30, 2015. As of October 18, 2017, it has been renamed the Denali Network Value International. The composite and benchmark performance is net of withholding taxes. Portfolio rebalancing is done monthly, or more frequently if judged to be advantageous. The fee schedule for this product is 0.75% on the first $50 million, 0.65% on the next $50 million, and 0.50% on the balance. Actual investment advisory fees incurred by clients may vary. There is a marketing minimum of $10 million. Client returns will be reduced by advisory and other expenses the client may incur. Net returns have been calculated by reducing gross returns by actual management fees incurred.

Denali Network Value International Small: Composite consists of fully discretionary International small cap portfolios that are designed to track the Denali Network Value International Small Index, as created by Denali using the investable small cap companies from 22 developed countries. The Denali Network Value International Small Composite was created September 30, 2018. Results are compared against the returns of the MSCI World ex-U.S. Small Cap Index and are intended to outperform this benchmark while maintaining reasonably similar sector, industry and security characteristics. The Denali Network Value International Small portfolio construction is based on the analysis of earnings, liquidity and other characteristics of selected small cap companies from developed international stock markets (e.g. the markets represented in the MSCI World ex-U.S. Index). Net returns have been calculated by reducing gross returns by actual management fees incurred. The composite and benchmark performance is net of withholding taxes. The fee schedule for this product is 1.00%. Client returns will be reduced by advisory and other expenses the client may incur. There is a marketing minimum of $10 million.

Denali Network Value International Small Value: Composite consists of fully discretionary International small cap portfolios that are designed to track the Denali Network Value International Small Index, as created by Denali using the investable small cap companies from 22 developed countries. The Denali Network Value International Small Value Composite was created October 31, 2018. Results are compared against the returns of the MSCI World ex-U.S. Small Cap Value Index and are intended to outperform this benchmark while maintaining reasonably similar sector, industry and security characteristics. The Denali Network Value International Small Value portfolio construction is based on the analysis of earnings, liquidity and other characteristics of selected small cap companies from developed international stock markets (e.g. the markets represented in the MSCI World ex-U.S. Index). Net returns have been calculated by reducing gross returns by actual management fees incurred. The composite and benchmark performance is net of withholding taxes. The fee schedule for this product is 1.00%. Client returns will be reduced by advisory and other expenses the client may incur. There is a marketing minimum of $10 million.

Network Value International Index: The results of the backtest presented reflect research returns of a historical simulation of the construction process for the Denali Network Value International Index beginning at the end of January 2001 and tested through September 2014, combined with the results of index portfolios constructed contemporaneously each month from October 2014 through the most recent month end. Index portfolios were formed each month of the historical period using historical data as input to Denali's proprietary Network Value index construction process. The security selection universe was developed by the Denali research team to represent the investable large cap stock universe in developed international markets. Data used in the historical simulation was sourced from FactSet and CapitalIQ, and the Barra Global Equity model was used for performance calculation. Real time performance presented as of October 1, 2014 through the most recent month is without the benefit of hindsight in model development. The results presented are the returns of a series of portfolios that are constructed and rebalanced according to the investment process developed for the Denali Network Value International index using the data available at the time of construction. This Index is not offered as an investment vehicle and is not directly investable, and the returns do not account for any transaction costs of rebalancing.