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RESEARCH PAPER

PRODUCTS (TAKING STOCK)

The impact of emerging markets in the search for global alpha

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The search for global alpha should include developing economies on several levels. The Identity (Global Alpha > US Alpha + EAFE Alpha + EMF Alpha) incorporates emerging markets into the greater opportunity set of the global equity universe, and suggests that the larger the investment opportunity set, the greater the potential to find higher alpha. Recently, the role of emerging markets in the global food chain for the manufacturing and distribution of products and services has significantly increased. Investors monitoring this shift can find valuable information that could potentially drive stock prices of companies in different parts of the chain. This information may not be visible when viewed discretely from an individual country or even continent standpoint and provides global investors with a distinct advantage.

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Historically, investors gained emerging market exposure through dedicated mandates. This was practical and effective because emerging markets, with high expected returns and high volatility, reduced total portfolio risk as a result of a low correlation with developed markets. However, as emerging market economies grew and relations with developed economies changed, the optimal way to benefit from their higher expected growth also shifted.

Over the past 15 years, correlations between emerging markets and developed markets have risen. If investors allow global managers to make emerging market investment decisions at the individual stock level, stocks domiciled in emerging markets will be placed in portfolios if and when they offer the best alpha opportunity, and developed market stocks will be included when they are best positioned to benefit from emerging market trends. This paper argues that investing in an integrated global portfolio is an appropriate means of gaining exposure to emerging markets.

While past performance is no guarantee of future performance, a portfolio would have benefited from exposure to the types of returns delivered by the emerging markets over the past few years (Figure 1). These returns were accompanied by higher volatilities (Figure 2 overpage) but even so, the benefit for a long-term investment horizon is compelling.

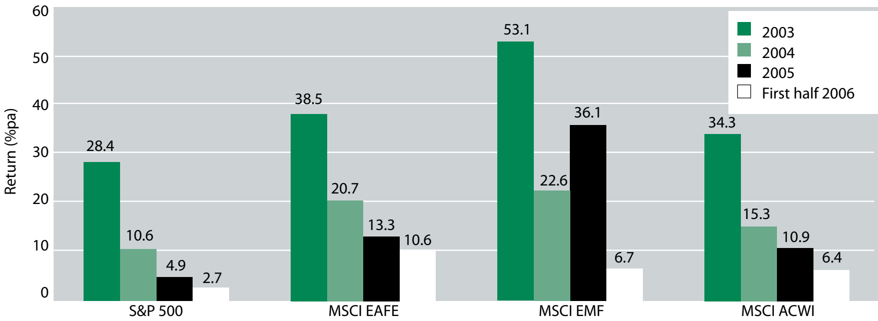
Impact on alpha opportunities

Historically, Western investors' actual and relative asset allocations to emerging markets were undersized, as were allocations of portfolio managers' time to thinking about those markets, firms and impact on other investments throughout the world. Fifteen years ago, the impact of emerging markets on equity investing could be simply described – these countries were cheap sources of labor whose stock markets, if accessible, offered positive uncorrelated returns to US and Australian equity markets. Emerging markets returns, while volatile in the short term, were a free lunch for investors in the long run.

Globalisation has transformed the role of emerging markets in the investment process.

While emerging market investments remain highly volatile, higher correlations between emerging and developed markets have eroded much of the diversification benefit of emerging market investments. Three-year rolling correlations between emerging markets and Australian and US equities were 0.26

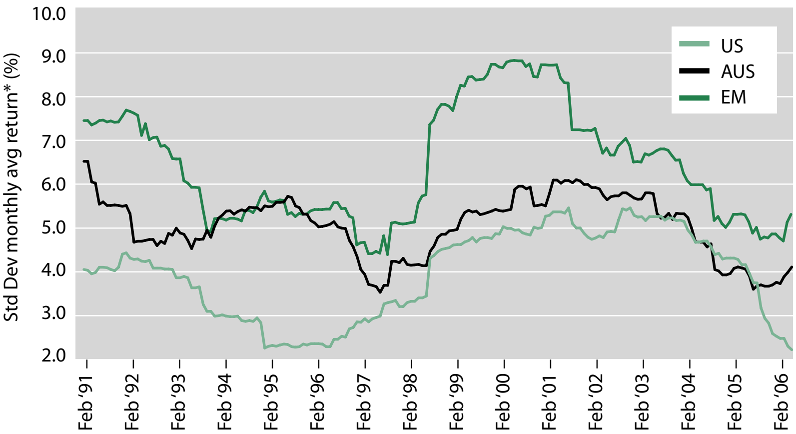
Figure 1: Returns of various world indices – 2003 to 2006



Notes: MSCI ACWI = MSCI All-Country World Index. MSCI EAFE = MSCI Europe Australia Far East Index. MSCI EMF = MSCI Emerging Markets Free Index.

Source: FactSet, Nicholas-Applegate

Figure 2: Volatility – Emerging Markets, US and Australia



*Notes: EM = MSCI Emerging Markets Free Index . US = S&P500. AUS = ASX All Ordinaries. * 3-yr moving average*

Source: FactSet, Nicholas-Applegate

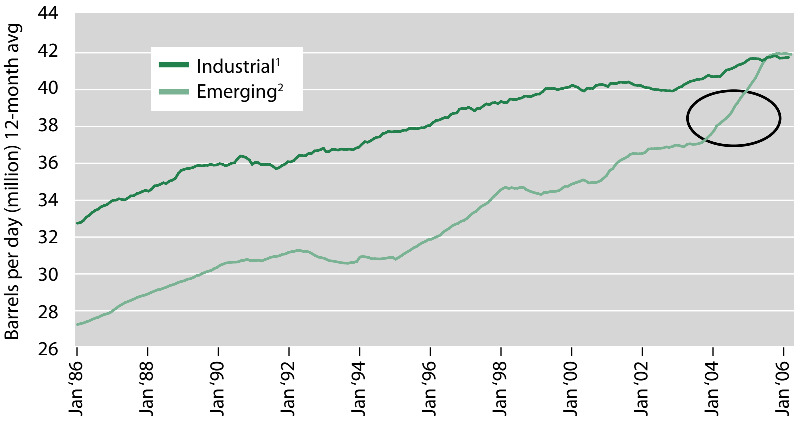
Figure 3: Sector opportunities vary by market

SECTOR	DEVELOPED	+	EMERGING =	GLOBAL
	US	EAFE + CANADA	EMF	ACWI
CONSUMER DISCRETIONARY	121	226	104	451
CONSUMER STAPLES	35	95	80	210
ENERGY	48	70	40	158
FINANCIALS	127	256	171	554
HEALTHCARE	68	61	24	153
INDUSTRIALS	65	250	128	443
INFO TECHNOLOGY	95	106	84	285
MATERIALS	29	143	122	294
TELECOMS	12	35	52	99
UTILITIES	34	45	44	123
TOTAL	634	1,287	849	2,770

Notes: US = S&P500. EAFE = MSCI Europe Australia Far East Index. EMF = MSCI Emerging Markets Free Index. ACWI = MSCI All-Country World Index.

Source: Morgan Stanley, Nicholas-Applegate

Figure 4: Industrial and developing countries – oil demand 1986-2006(e)



Notes: 1. US, Western Europe, Japan. 2. Total excluding US, Western Europe and Japan

Source: Ed Yardeni

and 0.34 respectively at 28 February 1991 but had risen to 0.85 and 0.75 respectively by 31 May 2006. Furthermore, while emerging markets are still sources of cheap labor, their rapid economic growth and staggering demand for raw materials are having inflationary impacts on the world economy.

Extracting alpha on several levels

This paper identifies the three primary benefits of emerging market investments in the search for global alpha: firstly, broader opportunity sets; secondly, additional chances to leverage knowledge and perspective gained from experience with developed market dynamics; and, thirdly, greater ability to exploit the beneficiaries of emerging markets trends regardless of company domicile.

As a result of these factors, integrated global portfolios have better alpha creation potential than combinations of separately managed region-specific portfolios. In other words:

Integrated Global Alpha > Separately Managed Global Alpha, or

Integrated Global Alpha > US Alpha + EAFE Alpha + EMF Alpha

Emerging market stocks broaden alpha potential for global investors

Global equity mandates put fewer constraints on investment managers, giving them free rein to select stocks of the best companies in given industries around the world. Opening opportunity sets fully to include all global equities, including those traded in emerging markets, means portfolio managers can buy shares in any part of the supply chain of a given product whose demand they expect to rise.

Examples abound, but imagine an investor seeking exposure to end demand for Hewlett-Packard Company and Dell notebook computers in the US, but unable to invest in the manufacturing and assembling part of the food chain because Quanta Computer, Inc. and Compal Electronics, Inc. are traded on the Taiwanese stock exchange.

Similarly, picture a portfolio manager optimistic about the volume of mobile phone demand but concerned about continuing declines in average selling prices (ASPs) of the end products. Barring global flexibility, that manager is unable to invest in cellular handset component manufacturer and assembler Foxconn International Holdings (less sensitive to consumer ASPs), because the stock is traded in Hong Kong. Instead, the manager may be limited to investing in handset manufacturer Motorola based on its developed market domicile, thereby taking on end market pricing risk.

Opening opportunity sets to all companies across the globe increases chances that managers will identify companies best positioned to take advantage of existing and emerging trends.

Emerging market companies are one-fourth of total investable companies worldwide

There are 6,989 companies with a market capitalisation greater than $500 million listed in developed markets, compared to 2,284 companies listed in emerging markets. Ignoring emerging markets leaves approximately 25% of the 9,273 potential equity investing opportunities unexploited.

Investment opportunities vary widely by sector (Figure 3). In the healthcare sector, investment opportunities in developed markets dwarf those in emerging markets. In other industries, excluding emerging market companies leaves a greater number of money-making opportunities on the table.

Opportunities in the consumer discretionary sector vary significantly by sub-sector

For example, there are 30 publicly-traded global automobile companies in the MSCI Global Index, of which 16 are traded in emerging markets. One example of an emerging market investment opportunity is Denway Motors Ltd., a Hong-Kong listed Chinese manufacturer of automobiles for Honda Motor Co. Ltd. Denway shares offer global investors a "pure play" on rising Chinese auto demand, versus shares of Japanese-listed Honda, which is exposed to a variety of markets with their own demand trends. In addition, Denway has none of the legacy business issues of Western and developed market automobile companies, such as large pension and health-care obligations. The company avoids the problems faced by General Motors Corporation and Ford Motor Company today. For example, in 2003, GM was forced to issue $13.5 billion in bonds to meet a pension payment obligations. Clearly, Denway is free of such commitments. While Denway is not without its challenges (for example, rising competition), its shares have outperformed stocks of other major auto companies, rising 48% in the three years between 2003 and midyear 2006, notably better than Ford (-37%) and GM (-17%).

The greater breadth is a key differentiating factor between global equity approaches and separate mandates. A bottom-up integrated global manager with freedom from regional constraints has greater potential to find alpha opportunities.

Leveraging knowledge in developed markets to spot similar patterns in emerging economies

Because economies and industries tend to develop in similar ways, inclusion of more markets in the investible universe translates into more opportunities to leverage experience. Emerging market industries, by definition, are less further along the path to maturity. These markets offer portfolio managers more chances to benefit from perspectives gained from experience in developed market industries.

Spotlight: Automobile penetration

The auto industry is developing in India and China as it did in the US and Europe. In the US, the introduction of auto financing in the 1920s, the rise in middle class purchasing power after World War II, and the proliferation of a national highway system all contributed to acceleration in automobile penetration in the twentieth century. American households owned 1.26 million automobiles in 1913, or one for every 31 households. The rate of growth in total personal automobile ownership increased from about 440,000 per year on average between 1900 and 1920, to 1.1 million per year on average from 1920 to 1940, to almost two million per year on average between 1940 and 1960. Today, about 80% of Americans own a car, and the rate is also relatively high in other developed markets (55% household penetration in Japan).[1]

In contrast, Chinese auto penetration rates are currently closer to 1%[2] and we see many of the same factors that led to US automobile penetration emerging in China. Automobile financing was introduced in China in 1998, and China's middle class is growing rapidly. Currently, there are over 120 million urban households with income between $US2,000 and $US7,000 per year,[3] up significantly from 2000. The middle class population is forecast to include over 600 million people by 2015.[4]

Interestingly, automobile ownership in China has risen at a similar rate to that in the US. This is somewhat surprising given China's larger overall population, but other factors have played a role in China, including: (1) lower incomes pushing people towards motorcycle ownership instead of automobile ownership (the ratio of registered motorcycles to cars in China was 5.8:1 in 2004); and, (2) poor road systems – expressway construction began in 1988 bringing finished expressways from a mere 4,735 kilometers in 1988 to 34,000 kilometers at the end of 2004, second only to the US. Yet most potential Chinese drivers do not have easy highway access. It took the US 22 years to grow automobile ownership from approximately 8,000 (in 1900) to 15 million (in 1923). China similarly grew ownership from 5,600 to roughly 11 million in a 20-year period from 1984 to 2004.

Clearly, the growth opportunity for Chinese automobile sales – as a result of the country's population size, lower penetration rate, and identified emerging growth drivers – is significantly greater than that in the US or Japan, even if the revenue base is much smaller today. Confidence in this assertion is bolstered by the recent example of India, where the number of cars sold per year doubled from 180,000 to 360,000 in the three years after auto financing was introduced (1994-1997).

The opportunity to benefit from accelerating Chinese automobile growth is best met by buying stocks in local companies, such as Denway. Notably, of the 30 global automobile manufacturers in the MSCI World, 11 are traded on EAFE exchanges and two are traded on US exchanges, while 16 are emerging-markets based. Excluding emerging market stock opportunities from the investment universe would not only exclude almost half of the world's auto companies, but would also exclude companies with the most direct exposure to some of the fastest-growing auto markets.

Finally, identifying common trends can also have derivative implications. Demand for autos in China is largely from first-time purchasers as it was in the US in the first half of last century, whereas demand in developed markets is related to replacements. So, while high absolute levels of auto sales in the US may be unlikely to materially change demand for gasoline consumption volumes, the rise of automobile penetration could prove to be a significant factor in China's growing demand for energy over the next several years. (In the US, transportation including personal and commercial vehicles accounts for more than 50% of oil consumption.) An ability to track the patterns and apply historical trends of US automobile industry growth may provide investors with better information with which to forecast the impact of the growing middle class on automobile penetration and the resulting impact on gasoline demand.

Emerging market economic growth leads to beneficiaries in developed markets

Advancements in globalisation and free trade have spawned rapid economic acceleration in emerging markets, impacting the global commodity and labour markets and inflation. Historically, the role of emerging markets in the global economy was as a destination for manufacturing outsourcing by developed market companies. In other words, during the 20th century, end demand for growing emerging market sectors (for example, Chinese textiles and Indian business services) came from Western nations. Integrating cheap emerging market labor into the global economy was deflationary.

However, as emerging economies have grown, their role has evolved. Widening income disparities between urban manufacturing centers and rural farming communities are producing population migration to the cities. This in turn is matching workers with jobs, raising overall productivity and wages, and lifting per capita GDP. It also creates the need for rapid capital investments from external sources.

Today, the urbanisation of China and India is straining global capacity for many commodities and basic materials. Suppliers of these materials and more complex products are benefiting from increased volume demand. Sometimes, as with mobile phones, increasing supply has not only a cost efficiency benefit but also a price deflationary impact. In other areas such as oil, steel and cement, the impact creates an inflationary environment accompanying higher volume demand. Understanding the supply chain and value contribution of each player within a given industry segment may reveal the most likely beneficiaries of emerging trends.

With regard to China, the world's most populous country (2005 population 1.3 billion) also has the world's largest labor force and has become the fourth-largest economy (2005 GDP $US2.26 trillion). China's tremendous growth is related to the dynamic discussed above, including its ability to provide cheap labor for developed countries' demand, but also reflecting its accelerating use of investment capital to meet those foreign obligations as well as its own growing appetite for products and services. The rise of China as a player in the global economy is evident from its role in trade. The trade balance between the US and China has jumped from $US10,431,000,000 per year in 1990 to $US201,544,800,000 per year in 2005. A contributing factor to increased trade is China's general integration into the global political economy.

China's economic growth may be traced to three main factors: an embrace of capitalism; trade liberalisation; and, urbanisation.

Capitalism took hold in China in the 1970s following Deng Xiaoping's decision to create a free economic trading zone in Guangdong from which Chinese companies would be allowed to export goods to foreign countries. This unlocked the door to the benefits of free trade and enabled China to begin reintegrating into the global economy. Activities in the Shenzen free economic zone took advantage of China's global comparative advantage, low-cost labor. This is consistent with the theories proposed in Heckscher-Olin's "Benefits from Free Trade" model and a straight-forward example of trade liberalisation. However, none of this would have been possible without abundant financing from Hong Kong, and its experience utilising a British-based legal and contractual system.

China ranks among the top producers and consumers of key resources, manufactured goods and capital equipment. It is the third-largest consumer of oil (after the US and European Union) and the world's largest consumer and producer of steel. China is also now the leading consumer of cell phones with almost 420 million versus the US at 215 million, despite a low overall penetration rate of just 28% in 2005 versus closer to 70% in the US and 90% in Europe. The rapid growth of Chinese demand for products in these industries provides local and foreign investment opportunities.

Spotlight: Opportunities from local energy trends

The energy sector provides another example of how understanding economic growth in emerging markets can lead to broader global investment opportunities. Some of the best stocks with which to take advantage of growing emerging market energy demand may come from outside those regions.

Demand for crude oil has been rising at a faster rate in emerging countries than in industrialised nations and the emerging countries have recently begun to consume more crude oil than the industrialised nations. Nowhere is this more apparent than in China, where demand has increased from just 2.5 million barrels of crude oil per day in the early 1990s to about seven million barrels of crude oil per day in 2006.

A number of factors are at play here, including urbanisation and trade liberalisation. China is experiencing higher domestic consumption related to urban population growth and growing penetration of motorcycles and cars. Separately, increasing demand for Chinese manufactured goods in other markets means transportation spending within China is rising significantly in order to move a greater volume of goods from factories to ports. Think of a product purchased at Wal-Mart, a company that, if it were a nation, would be China's eighth largest trading partner. Twenty years ago, a widget bought at a midwestern US Wal-Mart had significant embedded labor costs due to the use of domestic factories, but little energy was included in the cost of the widget because cartons were shipped (by truck) directly from a midwestern factory to a relatively close Wal-Mart distribution centre. Today, labor costs embedded in the same widget have been dramatically reduced as a result of outsourcing to China. However, the energy needed to transport the widget from the factory in Guangdong to a port in Shenzen or Hong Kong, then by container ship to Long Beach, California, then by truck to a Wal-Mart distribution centre, is significantly greater.

China's demand for light petroleum products (for example, gasoline, diesel) in particular has been accelerating. Much of the energy expended is being used for transportation, which uses light end products. Additionally, Chinese demand for power far exceeds the capacity of the country's predominantly coal-fired electricity generation power grid. While expansion of grid capacity is underway, immediate needs for electricity to supply the explosive growth in manufacturing and industrial production are being met in many cases by diesel generators. This rising demand for light petroleum end products translates into higher demand for light sweet crude. To make gasoline and other light refined products, refineries can approach the production process in one of two ways. Essentially, light refined end products are outputs of refining processes that utilise either heavy crude or light crude.

Chinese demand for oil and in particular, light crude, exceeds its supply, resulting in net imports from OPEC and other countries. As a result, Chinese demand is weighted more heavily than many other regions towards light crude, raising the global light/heavy differential and correspondingly increasing the competitive advantage of global refining companies that have complex processes and can efficiently convert heavier, more sour crudes into light petroleum products.

The conflicting dynamic between oil supply and demand is important. Global crude supply will continue to become heavier and more sour, while demand is increasingly for lighter crude. The average barrel of fuel produced is materially different (that is, heavier, more sour) from the average barrel produced just 25 years ago. This shift is the result of dwindling supplies of light sweet crude yields in the Gulf of Mexico and North Sea, as well as a desire by OPEC to increase production capacity.

US refiner Valero Energy is an excellent example of our thesis that identification of key emerging market themes (in this case rising demand for light sweet crude oil in China) can provide global investors with investable ideas outside emerging markets. Valero may be one of the greatest beneficiaries of the trends described above (rising demand (and prices) for light, sweet crude and an increasing light/heavy differential). Its advantages are two-fold. On one hand, it has complex refineries that can take advantage of discounts for heavy crude oil, leading to better spreads. On the other hand, it sells (wholesale) light petroleum products, which are experiencing strong inflation. Valero takes advantage of the old adage – buy low (the cheaper heavy crude) and sell high (expensive gasoline and diesel fuel). It sources relatively low input prices (defined as the light/heavy differential) from its superior conversion capacity. Higher conversion capacity means that Valero can use (lower priced) heavier inputs to make more gasoline and diesel than its competitors, thereby allowing the company to capture higher margins. Specifically, Valero's first quarter 2006 realised gross margin of $10.10/barrel compares to $6.14/barrel for the next largest independent US refiner, Sunoco.

To better understand Valero's margin advantage versus the competition, consider that the refining margin on a barrel of heavy sour crude is close to $23 versus $8 for light sweet crude (based on first quarter 2006 actual margins). Margins on both kinds of fuel have risen over the last few years (from an average of $3.38 for light and $6.05 for heavy in the 1996 to 2003 period).

Finally, a separate factor that has helped Valero's refining margin is the rollout of stricter US emissions regulations. Because the US requires cars and trucks produce lower sulfur emissions and because gasoline from Valero meets these standards (but fuel from most Asian-owned refineries does not), Valero is able to supply fuel to the US with less competition than before the regulations were introduced. Importantly, Valero's ability to meet US standards is the direct result of upgrades it made to its refineries to meet these standards, a practice not copied by many other refiners given low ($3/barrel and $6/barrel) historical spreads. Now that overall spreads and the light/heavy differential have widened, Valero is in a strong position to benefit from emerging market oil demand through its sales of light petroleum end products in the US.

Global perspective enables investors constructing integrated global portfolios to leverage knowledge of economic and industry trends in both developed and emerging markets, in order to select equities best positioned to benefit. In the example discussed above, it is demonstrated how investing in independent refiner Valero (a company domiciled in the US that does not sell products in China) may provide an effective method to exploit an increase in demand for crude oil coming from China.

Conclusion

Emerging markets may be significant contributors to global portfolio appreciation. Their importance is likely to rise as their impact on global investing evolves. In summary, integrated global portfolios have better alpha creation potential than combinations of separately managed region-specific portfolios. In other words:

Integrated Global Alpha > Separately Managed Global Alpha, or

Integrated Global Alpha > US Alpha + EAFE Alpha + EMF Alpha.

In the past two decades, we have observed the convergence of telecommunications and information technology, trade liberalisation and government embrace of free market economics increasing the impact of emerging markets on global returns. The confluence of these factors provides a distinct advantage to integrated global equity investors who include emerging markets in portfolios. To review, the integrated global investor's competitive advantage over a portfolio construction process combining regional mandates derives from broader opportunity sets, additional chances to leverage knowledge and perspective gained from experience with developed market industry dynamics, and greater awareness of emerging market trends and their drivers with an ability to exploit the beneficiaries as investments regardless of company domicile.

Notably, the relative importance of these different factors changes over time, as global risk perception rises and falls and different relationships emerge in various global industries. In every circumstance, applicability of these factors is different – a global manager's success will depend on its ability to appropriately apply its perspective to the situation at hand. As with all equity investment opportunities, the final investment decision is based on specifics of the company under review and the opportunity to capture alpha is unique to the business circumstance presenting itself.

ENDNOTES

1. Census Bureau, Citigroup Investment Research estimates, US Department of Commerce, Ward's Automotive Group, Nicholas Applegate estimates.

2. CEIC, Chinainfobank, Citigroup Investment Research esimates, Nicholas Applegate esimates, Ward's Automotive Group.

3&5. Laffer, A., C. McColgan, and L. Speidall, 2005 "China, Friend for Foe?", *Laffer Associates Supply-Side Investment Research*, 16 November

4. Goldman Sachs estimates.

ABOUT THE AUTHOR

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