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# Are Large Multinational Companies Undervalued? Emerging Markets Perspective.

Peter Kadish, August 2010

## Abstract

The relationship between emerging economies and developed economies via multinational corporations is investigated. Using newly constructed database, it is shown that corporate expansion during the past decade has been dominated by M&As and characterized by developed countries financial institutions' penetration into the emerging economies. European financial companies have experienced the fastest growth rates and together with US firms account for about 80% of the world's largest enterprises. This expansion has resulted in cheap financing for small enterprises with local knowledge of the market in emerging economies that has resulted in their stocks' outperformance since the beginning of the previous credit easing cycle (2001). As banking industry as a funding source is no longer available for small enterprises in emerging markets, this trend is expected to reverse. On the contrary, large multinational companies have access to cheap financing at home (where securitization markets are more developed) and internationally (economies of scale). This should allow large multinational enterprises to expand further in size by increasing their market share. Implications for the US economy are presented in Appendix.

JEL Classification: F01, F21, F23, G34

## **Introduction**

In 2005, Ben Bernanke (current Federal Reserve Chairman) asked logical question: why was the United States, the world largest economy, borrowing heavily on international capital markets – rather than lending, as would seem more natural. He argued that over the past decade, the combination of diverse forces has created a significant increase in global supply of savings – a global savings glut which helps to explain both the increase in the U.S. current account deficit and the relatively low level of long term interest rates in the world. Where did the savings to the US come from? The answer to this question comes from historical perspective and is related to the remarkable change in the current account balances of developing countries. Developing countries experienced a series of deep financial crisis in the past decades. In the mid – 1990s, most developing countries were net importers of capital. These capital inflows were not always productively used (in fact, most often they were used unproductively). In some cases, for example, developing-country governments borrowed to avoid necessary fiscal consolidation; in other cases opaque and poorly governed banking system failed to allocate these funds to the projects promising the highest returns. Loss of confidence, together with other factors such as overvalued fixed exchange rates and debt that was both short-term and denominated in foreign currencies, ultimately culminated in painful financial crises, including those in Mexico in 1994, in a number of East Asian countries in 1997-98, in Russia, in Brazil in 1999, and in Argentina in 2002. The effect of these crisis included rapid capital outflows, currency depreciation, sharp declines in domestic asset prices, weakened banking system, and recession. In response to these events, emerging market (EM) nations either chose or were forced into new strategies for managing international capital flows. In general, these strategies involved shifting from being net importers of capital to being net exporters. In practice, these countries increased reserves through the expedient of issuing debt to their local citizens, thereby mobilizing domestic savings, and then using the proceeds to buy various high grade fixed income securities (U.S. Treasuries, High grade corporate debt, etc.). Effectively, governments have acted as financial intermediaries, channeling domestic saving away from local uses and into international capital markets. The development and adoption of new technologies and raising productivity in the US and EU, together with long standing advantages such as low political risk, strong property rights and good regulatory environment, made the developed country economies exceptionally attractive to international investors.

## **Productivity and global ageing**

Populations of most industrial countries are both growing slowly and ageing rapidly. As a result, many of the industrial countries have strong reasons to save (to help support future retirees) as well as limited investment opportunities at home (because workforces are shrinking and capital-labor ratios are already high). In contrast, most developing countries have younger and more rapidly growing workforces, as well as low capital to labor ratios, conditions that imply that returns to capital in those countries may potentially be quite high.

## **Current financial architect**

There is another factor that played a role in influencing the level of global availability of capital. The growing inequality characterizing an unregulated capitalism, in which wages stagnate while productivity and profits raise, has resulted in the accumulation of vast sums of capital in the hands of a few investors in the metropolitan centre of global capitalism<sup>1</sup>. These gains are lightly taxed by governments that are not committed to appropriating a part of the surpluses of the rich to improve the welfare of the poor. Lower down the ladder, investment capital accumulates with mutual funds and pension funds in which less protected populations deposit the savings they put aside to insure their future. The decline of state-funded welfare in today's more liberalized and open capitalism is forcing the middle class in the developed countries to save by subscribing to these funds that have become important sources of financial capital. EM savings rates are even higher as social security net is either inexistent or very limited<sup>2</sup>.

## **Commodity prices**

Oil price surge resulted in increased foreign reserves which have served as a funding vehicle. Chandrasekhar (2008) found very tight correlation between build up of global liquidity and oil price. Lending to EM from early 1970s to 1982, fuelled by petrodollar recycling which was the result of end of Bretton Woods era and free convertibility, i.e. depreciation of USD versus commodities as a result of loose monetary policy in the US, led to increase in banking liabilities (deposits) that have been recycled back to EM via loans. Today high commodity prices resulted in accumulation of foreign reserves which serve as a funding sources for expansion of global corporations to EM. In other words, when capital comes via lending but not supported by entity (multinational enterprise), it is most probably utilized

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<sup>1</sup> For example the wealthiest 1% of Americans reportedly earned 21,2 % of all incomes in 2005, according to data from Internal Revenue Service. This was an increase from 19% in 2004 and more than 20,8% in 2000, at the peak of the previous bull market in stocks. Compared with this, the bottom 50% earned 12,8% of all incomes in 2005, which was less than 13,4% and 13% in 2004 and 2000 respectively. Heathcote, Perri and Giovanni (2009) find large and steady increase in wage inequality between 1967 and 2006.

<sup>2</sup> Savings rate in China is close to 30% of disposable income (Barnett and Brooks (2010)).

ineffectively. When this capital comes with corporation managing it, efficiency is increased.

### **Reverse flows**

In sum, the capital flows to the country that can employ it more efficiently. In other words capital flows to US are employed more efficiently. It then gets recycled back to emerging markets (EM) via multinational companies with their know-how, technology and expertise<sup>3</sup>. The reverse flow of capital essentially means that excess savings in EM are being “recycled” in ways that puts the responsibility of allocating that capital in the hands of a few financial decision makers at the apex of global concentrated financial system. For example, in the wake of China’s decision to invest part of its foreign exchange surpluses in funds managed by Blackstone (private equity group), much of this capital flowed back as investment into firms located in China itself. More recently, much has been made of the rise of SVF (Sovereign Wealth Funds) in developing countries, like China Investment Corporation, that are seen as a challenge to financial institutions from the developed countries, especially the US and UK, which have traditionally dominated global finance. However, a significant part of investments by these SWF is in global financial intermediaries or the funds they manage. This expansion of multinational companies has positive implications for the developed country economy as discussed in Appendix II.

### **Empirical tests**

Series of regression tests on companies with benchmark year 1995 and benchmark year 2000 (to account for possible structural shift due to lowering of the Federal Funds Target rate in 2001) are performed. Companies are compared according to their Enterprise Value (EV) to account for both debt and equity components. We range companies according to their EV within the following subgroups: largest 500 companies according to EV; largest 500 companies with EV below USD5 bil.; largest 500 companies with EV below USD1 bil.; largest 500 companies with EV below USD200 mio.; largest 500 companies with EV below USD50 mio. As can be seen from Table 1 below, company within larger subgroup tended to grow slower than company in subsequent smaller subgroup within all subgroups. This is valid for both 1995 and 2000 benchmark years, respectively.

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<sup>3</sup> For example, it has been shown that less than 9% of patents in US firms come from research conducted abroad (Doz, Santos, & Williamson, 2001)

**Table 1. Regression of larger subgroup on smaller subgroup**

Individual regression results of larger subgroup of sample on smaller subgroup of sample. Largest companies according to EV (enterprise value). Subgroup criteria: largest 500 companies with EV<\$50 mil; EV<\$200 mil; EV<1000 mil; EV<5000 mil; top 500. Benchmark year 1995. Annual data for 1995-2008. Log-linear model  $\ln Y_i = \alpha + \beta \ln X_i + u_i$ ; standard errors in parentheses, significant results in bold at  $\alpha=5\%$

regressor\regressand	EV<50	EV<200	EV<1000	EV<5000
top 500	0.37 (0.21)	<b>0.51</b> (0.24)	<b>0.79</b> (0.26)	<b>1.02</b> (0.22)
EV<5000	EV<50	EV<200	EV<1000	
	<b>0.56</b> (0.08)	<b>0.71</b> (0.08)	<b>0.93</b> (0.06)	
EV<1000	EV<50	EV<200		
	<b>0.06</b> (0.05)	<b>0.80</b> (0.04)		
EV<200	EV<50			
	<b>0.81</b> (0.03)			

Data source: Bloomberg

**Table 2. Regression of larger subgroup on smaller subgroup**

Individual regression results of larger subgroup of sample on smaller subgroup of sample. Largest companies according to EV (enterprise value). Subgroup criteria: largest 500 companies in each observation point with EV<\$50 mil; EV<\$200 mil; EV<1000 mil; EV<5000 mil; top 500. Benchmark year 2000. Annual data for 2000-2008. Log-linear model  $\ln Y_i = \alpha + \beta \ln X_i + u_i$ ; standard errors in parentheses, significant results in bold at  $\alpha=5\%$

regressor\regressand	EV<50	EV<200	EV<1000	EV<5000
top 500	<b>0.38</b> (0.05)	<b>0.43</b> (0.04)	<b>0.51</b> (0.04)	<b>0.61</b> (0.05)
EV<5000	EV<50	EV<200	EV<1000	
	<b>0.64</b> (0.04)	<b>0.71</b> (0.02)	<b>0.82</b> (0.03)	
EV<1000	EV<50	EV<200		
	<b>0.76</b> (0.05)	<b>0.85</b> (0.03)		
EV<200	EV<50			
	<b>0.91</b> (0.04)			

Data source: Bloomberg

The sample is then adjusted by taking top 500 companies according to EV in years 2001 - 2009. Companies are arranged according to their EV within the following subgroups: largest 500 companies according to EV; largest 500 companies with EV below USD5 bil.; largest 500 companies with EV below USD1 bil.; largest 500 companies with EV below USD200 mio.; largest 500 companies with EV below USD50 mio. However, the benchmark for the year is not set and therefore analysis does not follow the evolution of the fixed number of companies starting from the

base year. Differently put, there is no benchmark year for data selection and every time different companies are compared. The results are presented below. As can be seen from Table 3, results yield to opposite conclusion, suggesting that larger companies tend to grow faster than smaller companies. We increased the sample size up to 1500 companies within each subgroup but general trend remains the same.

**Table 3. Regression of larger subgroup on smaller subgroup**

Individual regression results of larger subgroup of sample on smaller subgroup of sample. Largest companies according to EV (enterprise value). Subgroup criteria: largest 500 companies in each observation point with EV<\$50 ml; EV<\$200 ml; EV<1000 ml; EV<5000 ml; top 500. Annual data for 2001, 2003, 2005, 2007, 2009. Log-linear model $\ln Y_i = \alpha + \beta_1 \ln X_i + u_i$ ; standard errors in parentheses. significant results in bold at $\alpha=5\%$ .				
regressor\regressand	EV<50	EV<200	EV<1000	EV<5000
top 500	<b>21.89</b> (5.34)	<b>21.68</b> (2.77)	<b>9.03</b> (1.09)	<b>4.27</b> (0.38)
EV<5000	<b>5.060</b> (1.23)	5 (0.50)	2.13 (0.09)	
EV<1000	<b>2.37</b> (0.58)	<b>2.35</b> (0.31)		
EV<200	<b>1.01</b>			

Data source: Bloomberg

What is the explanation that can account for such a dramatic difference between two approaches? Results presented in Tables 1,2 suggest that organic growth in smaller companies tend to be higher. However, organic growth is not the only source of growth. Closer analysis of companies in benchmark years (1995 and 2000 respectively) and companies in the year 2009 brings the following conclusion: the subset of the sample has significantly changed, i.e. new companies have emerged or moved from one subgroup to another. This leads to the conclusion that large part of deviation between the different approaches might come from M&A activity, where industry consolidation, cross border activity plays crucial role determining company sizes.

### **Global liquidity and financial flows to EM**

Foreign Direct Investments (FDI) is important vehicle to bring goods and services to foreign markets. FDI involves the transfer of a package of assets or intermediate products, which include financial capital, management and organizational expertise, technology, entrepreneurship, incentive structures, values and cultural norms, and access to markets across national boundaries. According to UNCTAD (2006), in 2004, the foreign assets of the top 100 non-financial MNEs accounted for

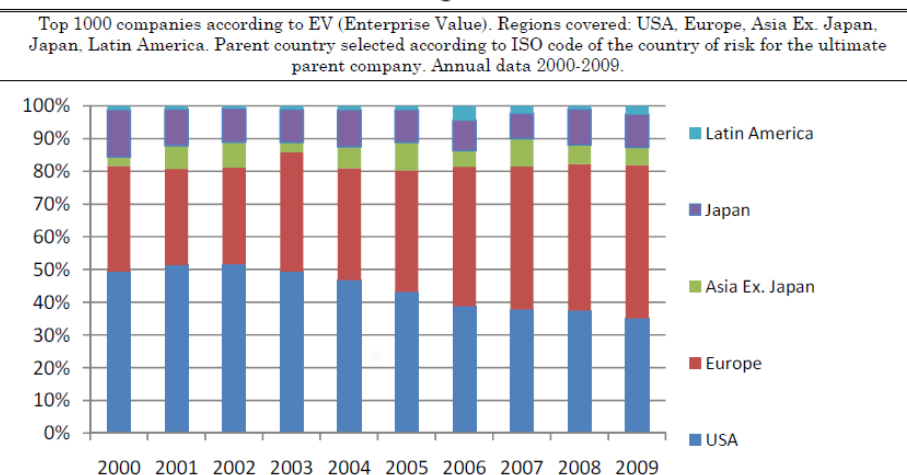
46% of global outward FDI stock<sup>4</sup>. However, one noticeable trend is that sales and purchases of cross border M&A has been, by far, dominated by finance related companies. Asia was the largest recipients of FDI flows (Dunning and Lundan (2008)). At the time of the East Asian crisis (mid-1997), the international asset position of banks resident in 23 countries reporting to the Bank of International Settlements (BIS) stood at \$9.95 trillion, involving \$8.6 trillion in external assets after adjusting for local assets in international currencies (BIS, 1997). By June 2007, when 40 countries were reporting, this had risen to \$33.71 trillion, with external assets totaling \$29.98 trillion (BIS, 2007a). For example, the international assets of the United Kingdom-based banks had increased from \$1.5 trillion to \$6.1 trillion, and that of the United States banks from \$0.74 trillion to \$2.8 trillion. This massive expansion of finance capital has been accompanied by a substantial increase in capital flows to developing countries. Net external financing flows which had fallen from \$360.1 billion in 1997 to \$173.5 billion in 2002, have since risen sharply to \$785.5 billion in 2006. While foreign direct and portfolio investment increased from \$153.8 billion in 2002 to \$446.7 billion in 2006, net external borrowing rose from \$10.9 billion in 2001 to 294.5 billion in 2006. Thus, underlying the surge was an expansion in both investment and debt flows to developing countries. Two features considered reassuring are, first, the large and dominant share of non-debt creating investment flows and, second, the dominance of foreign direct investment over foreign portfolio investment in equity flows. Dunning and Lundan (2008) found that there is reason to believe that the capital flows to developing countries were driven more by supply-side push factors, rather than developing country demand. It is undoubtedly true that this capital could not have crossed borders without relaxed regulations regarding the inflow of foreign equity and debt in the developing countries. But liberalization has not ensured large inflows either in all countries or at all times. It appears that an expansion of liquidity in the international financial system has driven funds into emerging markets, as it did before the debt crisis in the early 1980s and the East Asian crisis in 1997. With growing financial liberalization in the developing world, it was inevitable that this process would affect developing countries as well. The process of expansion was supported by low interest rates policy of the US (and EU). As a result, the combination of a depressed cost of capital and buoyant corporate profitability made it smart to borrow and buy earnings stream. As can be seen from below, the largest companies origin in USA or Western Europe. Among them, the largest share is in financial industry which also had experienced the largest growth rate during the last decade.

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<sup>4</sup> World annual FDI inflows rose from an average of \$50 billion during 1981-1985 to \$1.9 trillion in 2007. By the end of 2007, world FDI flows has accumulated to a stock of \$15 trillion, controlled over 80 000 multinational enterprises that have more than 800000 foreign affiliates.

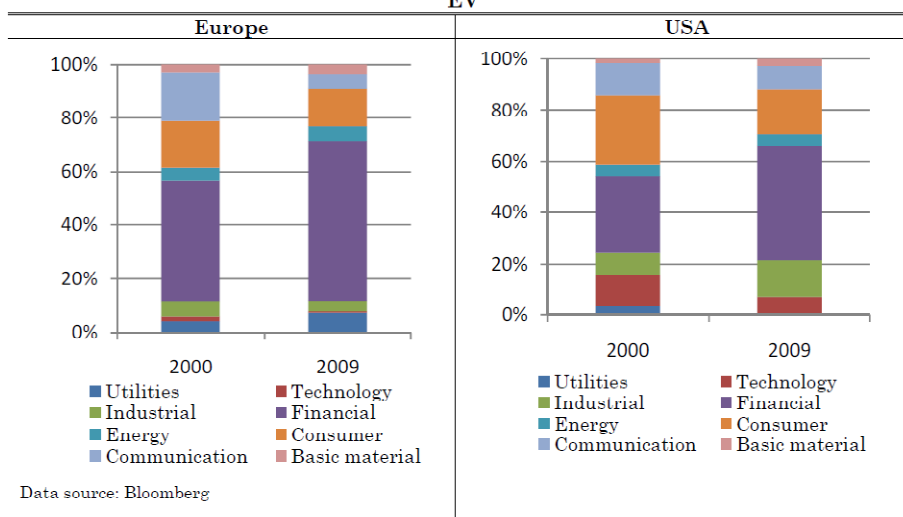


**Graph 1. Evolution of relative weight of companies from different geographical regions**



Data source: Bloomberg

**Graph 2. Relative weight of industries for 1000 largest companies according to EV**



Data source: Bloomberg

## Discussion

Since 1980s increased globalization has changed global corporate architecture significantly. Developed countries' enterprises have outsourced their production abroad where labor is cheaper and return to capital is higher. While organic growth of larger companies has been smaller, adjusted for consolidation and M&A activity, the growth has actually been larger. The 1990's and early 2000's saw a tremendous increase in the volume of cross border mergers and acquisitions (M&As). A new and important aspect of these M&As is that a significant number of the firms that are acquired or are merged with are from emerging economies. Piotroski and Srinivasan (2007) and Li (2007) have shown that the cross-listings of foreign firms in the U.S. have declined considerably. This is the case especially

those from emerging capital markets. This suggests that foreign firms that are seeking access to U.S. capital markets will be more likely to agree to be acquired by a U.S. corporation. This implies that M&As will become increasingly important over time for firms to access U.S. capital markets especially those from emerging markets. Francis and Hasan (2008) find that one of the main reasons for the increase in cross border acquisitions by U.S. firms, especially to emerging markets, is to provide funding to financially constrained firms either through internal capital markets or indirectly through access to external capital markets. By overcoming these financial constraints these firms are then able to undertake positive NPV projects which would otherwise have been forgone. An additional trend in recent cross-border M&As is that, increasingly large reputable multinational corporations such as Cisco, Microsoft, GE, Coca-Cola, AOL and Pfizer, among others are actively involved in these M&As. This indicates that not only has the volume of M&As increased over time but acquirer characteristics have also changed. The implication of this is that the wealth effects of cross-border transactions may be significantly different than those observed for the earlier time periods. For example, if in fact synergy is created following cross-border acquisitions, it may be even stronger among these large acquirers because they are more likely to have cheaper access to external capital markets and/or may already have a well functioning internal capital market. Francis and Hasan (2008) find that for firms taking over emerging market targets, changes in both the raw and industry-adjusted operating performance are significantly higher than those of the firms taking over developed market targets. This is especially the case for large bidders. In contrast, for small bidders, the results from the operating performance analysis indicate that they experience significant operating performance decrease in the long-run no matter which market they enter. Inter sum, they find that cross-border M&As create value for U.S. firms especially over the 1996-border 2003 time period, with most of this gain coming from acquisitions of emerging market targets. Results are consistent with the hypothesis that an important source of this value creation is that the merged firm provides access to cheaper external capital.

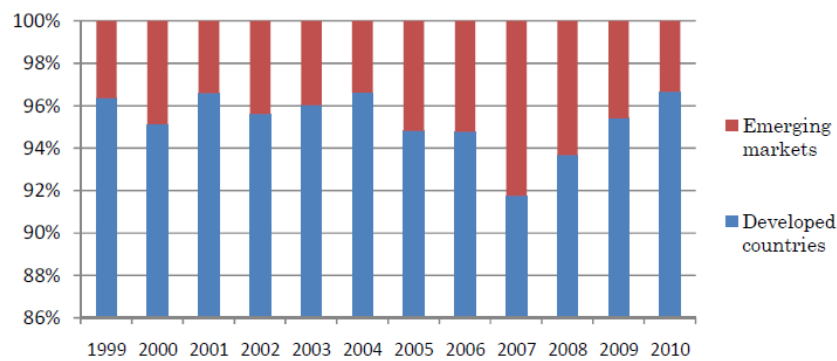
## **Conclusion**

Developed country financial sector penetration in EM has been higher than other non-financial sector companies' penetration in EM. This has in turn guaranteed easy access of EM small-caps to financial resources in order to discover market inefficiency and earn abnormal returns. As bank financing is no longer available in EM, this source of growth has been ceased. However, unlike large multinational companies, their access to securitization, market is practically inexistent. As can be seen from Graph 3, debt issuance in EM has already hit 10 year low relative to developed country issuance (compulsory rollover of debt is included, however, we

do not distinguish between new issuance in previous debt roll over issuance). This is somewhat offset by increased proportion in issuance of local denominated debt (Graph 4, 5), however the cost of such debt is higher which yet again places small EM), companies in another disadvantage to global corporations.

**Graph 3. Proportion of emerging market countries debt issuance to developed countries (local currency in EM excluded)**

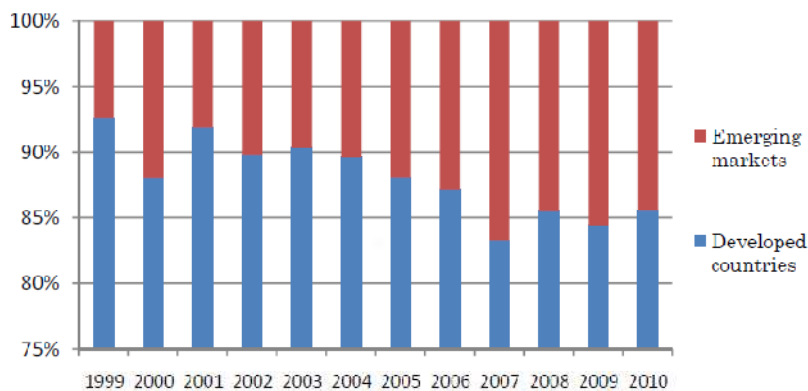
Proportion of emerging market countries (Mexico, Brazil, Argentina, Hungary, Poland, Russia, South Africa, China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Thailand, and Taiwan) debt issuance to developed countries (US, Canada, Germany, France, and UK) debt issuance. Selection criteria: currency of issuance: USD, EUR; government national, government regional, agency, supra-national companies excluded. Ratings range for developed countries: >BBB- (any among Moody's, Fitch, S&P); rating range for EM: C-BB+ (any among Moody's, Fitch, S&P).



Data source: Bloomberg

**Graph 4. Proportion of emerging market countries debt issuance to developed countries (local currency in EM is included)**

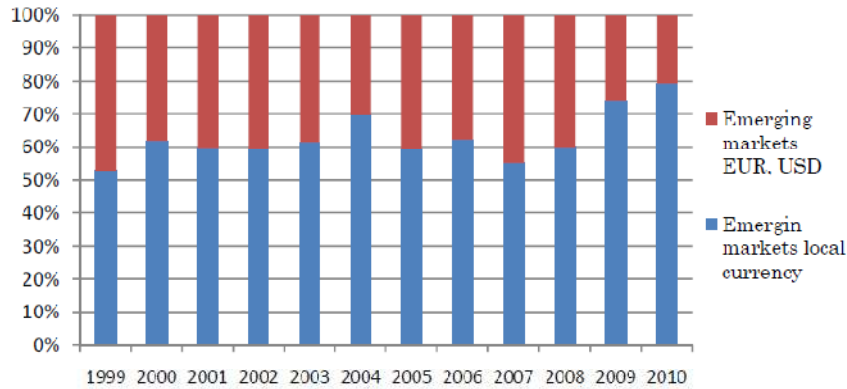
Proportion of emerging market countries (Mexico, Brazil, Argentina, Hungary, Poland, Russia, South Africa, China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Thailand, and Taiwan) debt issuance to developed countries (US, Canada, Germany, France, and UK) debt issuance. Selection criteria: currency of issuance: USD, EUR for developed countries and EUR, USD, Local for EM; government national, government regional, agency, supra-national companies excluded. Ratings range for developed countries: >BBB- (any among Moody's, Fitch, S&P); rating range for EM: C-BB+ (any among Moody's, Fitch, S&P).



Data source: Bloomberg

**Graph 5. Proportion of emerging market countries debt issuance in local currency to debt in USD, EUR**

Proportion of emerging market countries (Mexico, Brazil, Argentina, Hungary, Poland, Russia, South Africa, China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Thailand, and Taiwan) debt issuance in local currency to debt in USD, EUR. Selection criteria: government national, government regional, agency, supra-national companies excluded. Ratings range rating range for EM: C-BB+ (any among Moody's, Fitch, S&P);



Data source: Bloomberg

Based on the presented analysis, there is high probability in reverse of the trend that has been prevailing for the last decade with large developed country multinational companies growing slower than EM small capitalization stocks. In other words the reversal of the trend in the Graph 6 is expected. Among largest multinational companies, US and Western Europe companies account for around 80% of total (Graph 2, regression results presented in Appendix I). European companies have been growing faster than US companies, however, one have to distinguish between quality and quantity growth. Most of the growth has been done via financial sector, therefore final allocation of resources has been outsourced (bank lending). This might be associated with increased risks of capital loss (NPLs).

**Graph 6. Ratio of S&P 500 Index to MSCI Emerging Markets Small Cap Index 1994-2010**



Data source: Bloomberg

## APPENDIX I

Comparing growth rates among companies from different regions yields the following results:

**Table 1. Regression of different geographical subgroups**

Individual regression results of different geographical subgroups. Largest companies according to EV (enterprise value) in the following subgroups: USA, Western Europe, Japan, Asia excluding Japan. Parent country selected according to ISO code of the country of risk for the ultimate parent company. Subgroup criteria: largest 500 companies within each subgroup. Some companies eliminated due to unavailability of data. Benchmark year: 2000. Annual data for 2000-2008. Log-linear model $\ln Y_i = \alpha + \beta_2 \ln X_i + u_i$ ; standard errors in parentheses, significant results in bold at $\alpha=5\%$			
regressor\regressand	Western Europe	Japan	Asia Ex. Japan
USA	<b>0.28</b> (0.06)	0.39 (0.18)	<b>0.25</b> (0.05)
regressor\regressand	USA	Japan	Asia Ex. Japan
Western Europe	<b>2.7</b> (0.57)	1.08 (0.59)	<b>0.83</b> (0.09)

**Table 2. Regression of different geographical subgroups**

Individual regression results of different geographical subgroups. Largest companies according to EV (enterprise value) in the following subgroups: USA, Western Europe, Japan, Asia excluding Japan. Parent country selected according to ISO code of the country of risk for the ultimate parent company. Subgroup criteria: largest 500 companies within each subgroup. Some companies eliminated due to unavailability of data. Benchmark year: 1995. Annual data for 1995-2008. Log-linear model $\ln Y_i = \alpha + \beta_2 \ln X_i + u_i$ ; standard errors in parentheses, significant results in bold at $\alpha=5\%$			
regressor\regressand	Western Europe	Japan	Asia Ex. Japan
USA	<b>0.57</b> (0.08)	0.89 (0.49)	<b>0.71</b> (0.33)
regressor\regressand	USA	Japan	Asia Ex. Japan
Western Europe	<b>1.42</b> (0.19)	<b>2</b> (0.66)	<b>1.66</b> (0.37)

Data source: Bloomberg

As can be seen from regression analysis, growth rate of European companies has been faster than that of the rest subgroup. These results are compliance with findings of Dunning and Lundan (2008). They found that although the US continues to be by far the largest outward direct investor, its share of the world direct capital stock over the past four decades has steadily fallen from 47% in 1960 to 42% in 1980, 24% in 1990 and 19% in 2005. In 1962, the US accounted for 61% of the 500 largest industrial companies in the world, while in 1982 it accounted for 44% (Dunning and Pearce (1985)). In the Fortune Global 500 list of 2006, US firms were still the most numerous, although they accounted for only 34% of the total. Between 1973 and 2002, the four main European investors (the UK, Germany, the Netherlands and France) and Japan accounted for 43% of the accumulated stock of FDI compared with only 30% in 1973. Another feature of the outward FDI stock data is the sharp increase in the rate of growth of the stake of several smaller

developed countries. For example, between 1990 and 2002, Denmark, Austria, Israel and Portugal each more than doubled their share. Trends in outward investment flows tell the same story. There is continuing relative decline of the US as a major outward investor, and a sharp increase in the significance of some EU investors, such as the UK, France, Spain and Belgium/Luxembourg.

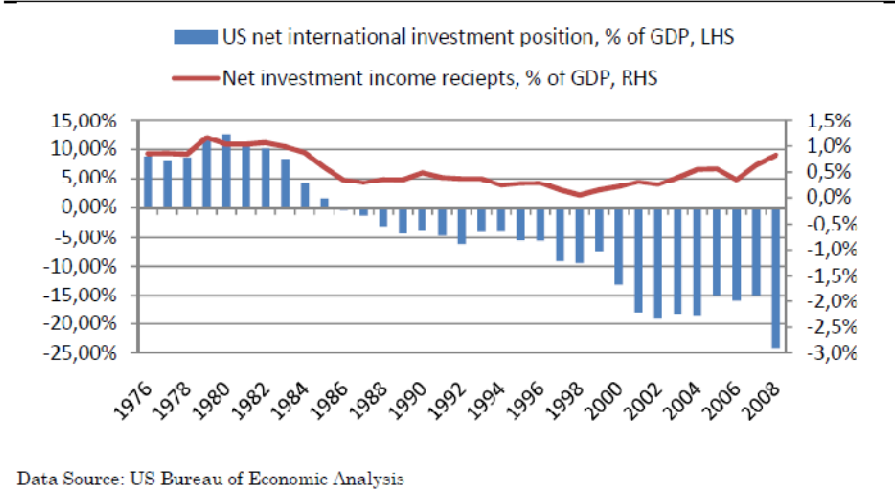
## APPENDIX II

Implications for the US economy:

In what follows, to the structure of gross assets and liabilities and their evolution over time is analyzed. This structure is particularly interesting in the case of the US, which has been the center country of the Bretton Woods system since 1944 and has remained the most important financial center in the world, even after the collapse of the fixed exchange rate regime. The US has succeeded the United Kingdom as the 'Banker of the World' and the issuer of the main international currency. This means in particular being able to borrow short (foreigners are willing to purchase liquid dollar assets) and lend long (the US supplies long-term loans and investment funds to foreign enterprises). Just like a bank, the US can extract an intermediation margin, given by the (positive) return differential between external assets and liabilities. During the whole period, US assets have shifted more and more out of long term bank loans towards FDI and, since the 1990s, towards FDI and equity. At the same time, its liabilities have remained dominated by bank loans, trade credit and debt, i.e. low yield safe assets. Hence the US balance sheet resembles increasingly one of a venture capitalist with high return risky investments on the asset side. Furthermore, its leverage ratio has increased sizably over time. During the 1960s, the US was running moderate current account surpluses but was investing sizable amounts abroad in the form of FDI. The share of FDI steadily increased between 1952 and 1973, from zero to 40% of gross external asset positions. On 4 February 1965 the French president de Gaulle famously complained in a press conference at the Elysée Palace that an increase in the US money supply was leading to increased capital outflows from the US and "for some countries to a sort of expropriation of their enterprises." For de Gaulle, the role of the dollar as the international currency meant that the US could borrow money from the rest of the world "free of charge." By printing dollars and using them to purchase foreign companies, it was claimed, the US was abusing its hegemonic position at the center of the international monetary system. But these long - term capital outflows led to a continuous drain of the US gold reserves, despite the numerous and futile attempts by the US to limit the size of the balance of payments deficit. The abandonment of gold parity, however, did not lead to the demise of the dollar as the main international currency. The US has remained the world liquidity provider ever since. The share of risky assets in total assets increased continuously during the Bretton Woods era, as growing FDI outflows led to a decrease in gold reserves. This gold drain was stopped in 1973 once the Nixon Administration decided to end the convertibility of the dollar. After the emerging market debt crisis of the 1980s and the deregulation of equity markets of the 1990s, the growth in FDI and portfolio equity flows gathered pace ever since. In

sum, an important difference in the composition of stocks is that the US holds more direct investment assets, which have a higher rate of return than the fixed-income debt that makes up the stock of US liabilities. This upward trend in the share of high yielding risky assets is consistent with the increase over time of the (positive) return differential between assets and liabilities. And even though we can observe the raising cost of the interest payments on the growing US public debt, which has been increasingly held by foreigners, it is compensated by even faster rise in the income generated by FDI<sup>5</sup>. The US net investment income balance (Graph 1) — earnings on US owned assets abroad minus payments on foreign-owned assets in the US— has been running positive despite the large and growing net external debt position—the stock of US owned assets overseas minus the stock of foreign-owned assets domestically (Graph 1).

**Graph 1. US net international position and net investment income receipts**

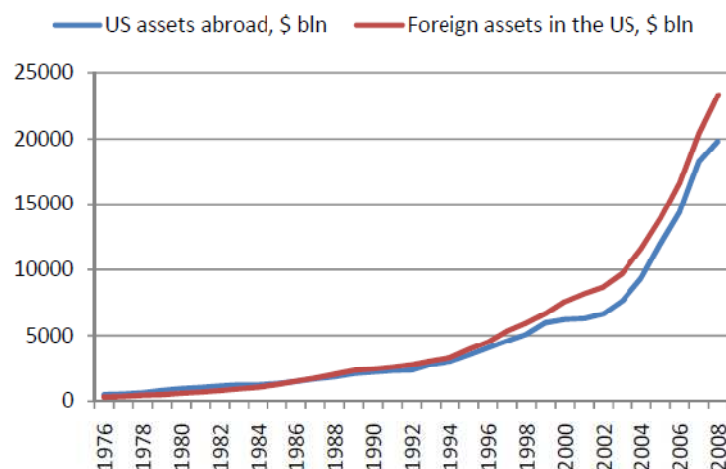


The stock of foreign assets in the US has grown faster than the stock of US assets abroad and by the end of 2008 exceeded the stock of US assets abroad by 17% (Graph 2). While the US investment position balance has become increasingly negative over time, the investment income balance has remained positive and actually trended upward over much of the past decade.

<sup>5</sup> According to Gourichas and Ray (2005), the post Bretton Woods average asset return for US is 6,82% while corresponding total liability return is 3,5%. According to Deutsche Bank, the excess return ranged between 1-2% since 1976 (always positive).



**Graph 2. US assets abroad and foreign assets in the US**



Data Source: US Bureau of Economic Analysis

The long-standing relationship between a negative US investment position and a positive US income balance is due to a higher rate of return on US assets abroad than on foreign assets in the US. The increase in the level of US debt will eventually outweigh the rate-of- return differential as risk premium will raise, however no research has been able to detect the threshold level of that debt. In sum, the performance of US multinational enterprises has played an important role in reducing the size of the CA deficit. The continued surplus on capital income which represents the receipts of income by U.S. parents from their foreign affiliates less payments of income to the foreign parents of their affiliates in the US, has in part compensated for the deficit in goods, and thus reduced the burden of external debt liabilities. The positive balance on services, particularly on royalties and license fees and other private services, have also helped to offset the deficit in goods. Mihir and Fritz (2008) find evidence that there is a strong positive correlation between the domestic and foreign activity levels of multinational firms. Their results imply that 10 percent greater foreign capital investment triggers 2.6 percent of additional domestic capital investment, and that 10 percent greater foreign employee compensation is associated with 3.7 percent greater domestic employee compensation. There are similar positive relationships between foreign and domestic changes in assets, and numbers of employees. There are several channels through which foreign activities can influence the scope of domestic operations, including cases in which foreign production requires inputs of tangible or intellectual property produced in the home country. The estimates indicate that greater foreign activity is associated with higher exports from U.S. parent companies to their foreign affiliates and is also associated with greater domestic R&D spending. In sum, across all of these measures of multinational firm activity,

the regression analysis suggests that increased foreign activity is associated with greater domestic activity. Increasing factory productivity has kept America the world's largest industrial economy, accounting for more than one-fifth of global output, almost twice as much as China, according to United Nations. Raising productivity also means companies need fewer workers. The number of Americans employed in factories has fallen 40% since peaking in 1979, according to Labor Department. The reality is that manufacturing employs a mere 11,5 million workers in the US, or 9% of the labor force. Surprisingly, there are 7.7 million people in financial services, which is not much if we compare the size of financial company size to the rest dataset. The point is that you don't need many people to operate large bank, however the return on assets (ROA) can be significantly higher<sup>6</sup>. While productivity has played a major role, the US has also moved up the manufacturing ladder, creating and making more sophisticated, technologically advanced goods while losing low-skill, lower-value industries, such as toys and textiles, to countries where wages are a fraction of those in America. Indeed, there has been a change in the composition of US trading partners towards low-price producers. From this perspective EM workers are complements rather than substitutes for developed country workers. Their (EM) joining the global labor pool reduces the prices of the manufacturing goods the developed country buys and raises the demand and prices for high-tech goods and services developed country sells, which benefits educated labor and raises the pace of technological advance. The slower the spread of new technology to low wage countries, the higher paid are developed country workers compared to workers in developing countries. As Ferguson and Schularick (2009) report, Chinese unit labor costs today are about 25% lower than in 1998 (in dollar terms).

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<sup>6</sup> Around 40% of corporate earnings in US come from financial sector.

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