

**Spring 2007
Industry Study**

**Final Report
*Financial Services Industry***



ICAF

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Financial Services Industry Study Report: Executive Summary

The financial services industry – the complex web of organizations and firms that deal with the management of money – serves as the foundation for U.S. industry and the broader economy. Through efficient and orderly allocation of capital within the U.S. economy, the financial markets seek to maximize return, thereby boosting the national wealth that underpins U.S. military, economic, and diplomatic strength. With the rise of competing financial markets in a globalized world, the challenge for U.S. policymakers is to create conditions for both investors and corporations to thrive in U.S. capital markets. Thus, future U.S. competitiveness depends on the ability to generate and attract capital, optimize regulatory practices, and properly manage risk.

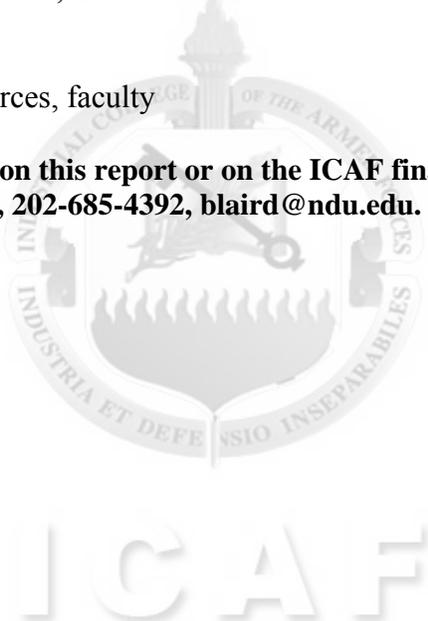
Although the U.S. financial services industry profits today from the liquidity generated by massive foreign capital inflows, the global U.S. economic position is steadily weakening. The United States has become the preeminent net debtor nation, investing more than it is saving, and guzzling resources from other economies to satisfy its consumption desires. While record levels of U.S. household debt have contributed to today's economic growth, that growth may have been achieved at the cost of jeopardizing the nation's economic future. Increased household debt, coupled with reduced savings, could limit the amount of capital available for more productive uses and increase U.S. reliance on foreign investment. In the face of concerns about U.S. debt accumulation, the attractiveness and credibility of the U.S. financial market may eventually deteriorate to a critical point. Aging global populations and rising energy costs will soak up liquidity throughout the world, exacerbating the capital crunch for U.S. financial markets.

How can the United States ensure continued global competitiveness for its financial services industry and economy as a whole? At the macroeconomic level, new policies are needed to increase U.S. savings and to address budgetary pressures from retiring baby boomers and growing health care costs. At the regulatory level, U.S. legislation needs to strike the right balance between ensuring the continued confidence in U.S. markets' unparalleled transparency and avoiding overly cumbersome reporting requirements that drive companies away from U.S. markets to overseas competitors. Regulation also needs to preserve the U.S. financial services industry's outstanding ability to assess, manage, and hedge risk. Although the widespread use of derivatives and hedge funds has come under fire, we believe only minor modifications are necessary to the existing regulatory framework to protect small investors while giving ample opportunity for hedging risk in U.S. capital markets.

At the strategic level, the U.S. financial services industry operates within a globalized world where the actions of other governments and overseas firms often matter just as much as U.S. actions. Preventing a global meltdown of financial markets will require U.S. regulators to cooperate more closely than ever with their overseas counterparts. It will also require U.S. legislators and policymakers to resist the temptation to resort to protectionism to foster competitive advantage. We see opportunities for U.S. firms, U.S. investors, and the United States as a whole, through promoting the development of the financial services sectors in emerging competitors – China and India, in particular. Indeed, by fostering transparent, open, capital-rich, and healthy financial services industries in both India and China, the United States can position itself to maintain competitive advantage for its own financial services industry while fostering international partnerships for global stability and prosperity.

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Domestic

Pentagon Federal Credit Union, Arlington, VA
 Commodities Futures Trading Commission, Washington, DC
 Federal Bankruptcy Court, Baltimore, MD
 Legg Mason, Baltimore, MD
 Smith Barney, Baltimore, MD
 Steifel Nicklaus, Baltimore, MD
 Securities and Exchange Commission, Washington, DC
 Union Bank of Switzerland, Washington, DC
 Federal Reserve, Washington, DC
 U.S. Treasury Department, Washington, DC
 National Association of Securities Dealers, Rockville, MD
 Lockheed Martin Marietta, Bethesda, MD
 Bank of America, Washington, DC
 State Farm Insurance, Chicago, IL
 The Boeing Corporation, Chicago, IL
 Chicago Board of Trade, Chicago, IL
 Robert W. Baird & Company, Chicago, IL
 Northrop Grumman Corporation, Washington, DC
 Greg P. Wilson Consulting, Washington, DC
 Center for Strategic and International Studies, Washington, DC
 Bear Stearns, New York, NY
 Lehman Brothers, New York, NY
 HSBC, New York, NY
 Goldman Sachs, New York, NY
 TIAA – CREF, New York, NY
 New York Stock Exchange, New York, NY
 Alliance Bernstein, New York, NY
 Moody's Investor Service, New York, NY
 American Institute of Certified Public Accountants, New York, NY
 W.J. Bonfanti, New York, NY
 Federal Reserve Bank of New York, New York, NY
 The Carlyle Group, Washington, DC

International

U.S. Embassy, New Delhi, India
 Union Minister for India Railways, New Delhi, India
 Planning Commission, Government of India, New Delhi, India
 Indian Infrastructure Finance Company Limited, New Delhi, India

National Commodity and Derivatives Exchange Limited, Mumbai, India
India Railways, Mumbai, India
Blackstone Group, Mumbai, India
U.S. Embassy, Beijing, China
Bank of China, Beijing, China
J.P. Morgan, Beijing, China
China Banking Regulatory Commission, Beijing, China
McKinsey & Company, Beijing, China
Caijing Magazine, Beijing, China



The Financial Services Industry: The Engine for U.S. Economic Success or Failure

Few industries at first glance appear more disconnected from the national security of the United States than does financial services. In reality, financial services are the foundation upon which all other economic functions and industries are built and rely. It is much more than retail banking or even the clearing houses behind the scenes that form the gears of our market economy. The financial services industry provides the underlying mechanisms that remove the nation's wealth out from under its figurative mattresses and allocates it across the breadth of the economic landscape to create growth.

Financial services is a broad term used to describe organizations that deal with the management of money. It is comprised of many entities, to include banks, investment banks, insurance companies, credit card companies, government sponsored enterprises and institutions, stock and commodity exchanges, and credit rating agencies. It is the largest industry (or industry category) in the world in terms of earnings.

Globalization is probably nowhere more apparent than in financial services, with capital flowing freely between industries, markets, regions, and nations across the globe. Capital has often been described as a "coward," moving towards predictable markets that investors trust and correspondingly fleeing from unpredictable markets that investors cannot trust. Trust in these markets, as well as the governments and institutions that support them, forms the foundation of all financial markets and institutions, without which market failure occurs and will continue to occur.

Financial services are the engine of wealth generation for companies and nations by matching the factors of productivity, labor, and capital in markets that bridge the gap of risk between buyers and sellers. The most significant strategic contribution of financial services is capital allocation. Efficient and orderly financial markets allocate capital to industries and companies that will employ that capital to maximize return, thereby maximizing national wealth.

For the United States, national wealth underwrites the nation's ability to project power across the instruments of national power: diplomatic, informational, military, and economic. Most notably, it places the United States in a position of relative strength to secure national interests and support our National Security Strategy. In addition to the other elements of national power, a strong financial base provides the credibility to promote, and to some extent dictate, the terms for regional stability, security, and peace. It allows for continued economic prosperity for our country and those allied with us. It enables national competitiveness for our country's people and products in global markets. However, most importantly, financial security is the basis for our country's very survival and in this respect perhaps even more important than our nation's military.

There is a prominent billboard in Beijing that reads "The Future is Here." It is a brash reminder that capital may be a coward but it also behaves like a moth to a flame, moving towards the warmth and light of promising returns despite the risk involved and sometimes burning as a result. The flow of capital into emerging nations like China (and to a lesser degree India and others) reflects a strong desire for investors in mature economies to benefit from the substantial potential returns that might be achieved as those enormous populations begin to prosper. Whether or not emerging nations like China will be at the center of the future of global financial services will depend largely on the extent to which the markets in those nations provide environments of transparency and trust. Both nationally and globally, financial markets are at a crossroads with a wide range of possible outcomes.

Of significant interest today are several factors affecting the financial services industry and its markets that, if understood, could enable continued global development and prosperity. However, if business and political leaders err, ignorant of the changing dynamics, they form the beginnings of a “perfect storm” that could wreak global havoc in unimaginable proportions. For example, the recent drop in China’s stock exchange was a wake up call for many with respect to globalization’s reach, illustrating that the failure in one country’s market can have significant, unexpected global impact.

Shifting demographics are also a significant factor in the brewing storm. Aging populations such the U.S. “baby boomers” and their effect on economies are difficult to gauge. Rising populations in India, Latin America, and the Middle East will surely impact global economic markets. China’s increasingly dominant role in export markets also poses potential opportunities and threats to U.S. economic leadership.

How the U.S. and foreign governments respond to these challenges will in large measure determine the fate of any potential economic storm. Will governments move quickly to develop institutions that ensure transparency and trust? Will they overreact with cumbersome regulations that stymie competitiveness? These are the questions and issues of significance as the financial services industry moves forward in the twenty-first century. As we explore these questions, we are ultimately charting the role of the United States in a new financial world order. This paper will discuss these issues while specifically addressing U.S. financial competitiveness, the systemic risks that we must overcome, and how the evolving financial services industries in China and India will play a critical role in the world economy and affect U.S. competitiveness on the world stage. In light of our research and findings, we will offer proposed policy recommendations to help the United States ensure the vitality of its financial services industry as an essential contributor to overall national competitiveness.

The Demise of U.S. Global Financial Competitiveness in a World without Boundaries

As Treasury Secretary Paulson (2006) stated, “U.S. capital markets are the life blood of our economy.” They are a main source of funds that U.S. companies use to innovate and dominate the global marketplace. Statements such as Secretary Paulson’s are supported by ample historical precedent. Companies throughout the world have historically sought out U.S. capital markets because of their inherent strength, liquidity, and transparency. In financial services, however, past performance does not predict future returns. The impact of globalization’s relentless competitive forces continues to play out with speed and market-shaping effect. President Bush summarized the importance of the financial services industry quite effectively when he noted that “to keep America’s economic leadership, America must be the place in the world to invest capital and do business” (2007). Capital markets play a crucial role in turning entrepreneurial ideas into wealth building businesses. As a result, the financial services industry contributes nearly eight percent to U.S. Gross Domestic Product (GDP).

Much of the continued growth in financial services has been driven by innovation within the financial services industry itself, resulting in remarkable growth in the percentage of the U.S. population that own stocks, bonds, and mutual funds – now more than half the population. (U.S. Department of Commerce, 2007, p. 4). Some of this innovation has been driven by global competition, pushing U.S. firms to develop greater product diversity. While global competition has yielded greater product diversity, consumer choice and efficiency within the market, it may

not be enough to maintain U.S. competitiveness as evidenced by a gradual erosion in the U.S. global market share for financial products.

According to Senator Crapo's (2007) statement in the Congressional Record, "the decline in global initial public offerings in the United States, and the fact that London already enjoys clear leadership in the fast growing OTC derivatives market, are such worrying trends." Additionally, New York City Mayor Bloomberg and U.S. Senator Schumer (2007) recently said in a press release: "Left unchecked, today's trends could significantly negatively impact the U.S. economy. The United States would miss out on between \$15 billion and \$30 billion in financial services revenues annually by 2011. Those revenues, if retained, could translate into as many as thirty to sixty thousand jobs in the U.S."

If the United States is going to remain a competitor for both global capital and financial services business, then it must redouble efforts to provide safe and efficient markets without burdensome regulation that would drive business elsewhere. The United States must make it easier for global companies to conduct business in its markets and comply with SEC regulations. In this regard, it is encouraging that the SEC is moving towards full acceptance of International Financial Reporting Standards. The United States must develop (or import) the intellectual capital to innovatively manage today's increasingly complex financial instruments. In short, the United States must set conditions for both investors and corporations to thrive in U.S. capital markets.

Precarious Balance in Ensuring Future Availability of Capital and Wealth Generation

From a macroeconomic perspective, growth depends on the inputs of capital, labor, and productivity. It is the innovative application of capital and labor that generates productivity that, in turn, generates wealth in the economy. Maintaining the means to attract capital therefore remains a critical mission of the financial services industry.

Today, the U.S. economy continues to attract significant foreign investment, despite an established trend of U.S. deficit spending, ever-menacing public and private debt, and a personal savings rate that is at the lowest rate since the Great Depression. Alarming, personal savings is likely to slip further as the baby boomer generation retires and begins to live off of its accumulated savings. This will likely further reduce the domestic supply of capital that is already overmatched by U.S. consumption and likely to be further reduced by increasing energy costs. Greater economic risk, reduced wealth, and stalled productivity are real possibilities.

Capital Flows, Increasing Debt, and Low National Savings. The U.S. current account balance affords a discerning view into the economy's overall position, measuring the extent to which foreigners are buying claims on the U.S. economy through stocks, bonds, operating businesses, real estate, and the exchange of goods and services (Cooper, 2005, p.3). It offers crucial insight into macroeconomic capital flows, and it shapes the environment in which the financial services industry operates. It also begins to paint a disturbing economic picture, as much for the policy challenges it presents as for the paradoxical picture it paints.

The U.S. current account balance describes an enormous deficit – in fact, the largest economic imbalance in the world – and a dominant feature of the global economy. As of 2006, the deficit stood at an astounding \$856.6 billion, or a record 6.5 percent of U.S. GDP (FoxNews.com, March 14, 2007). And the deficit continues to grow faster than U.S. GDP. To finance this deficit, the United States requires enormous capital inflows from the rest of the

world suggestive of an economic giant feeding an appetite so insatiable that it must borrow money from much poorer nations to sustain itself.

From a fiscal perspective, the consumption-oriented United States operates in a state of persistent budget deficit. Fortunately, excess savings abroad sources an inflow of foreign capital that finances U.S. deficits and a growing U.S. national debt. At the same time, it augments relatively scarce domestic sources of capital, with a lowering effect on U.S. interest rates. Without these foreign sources of funds, it is very likely that U.S. debt markets would lack sufficient liquidity to sustain current borrowing levels, particularly at the low long-term interest rates U.S. Government debt currently enjoys.

In driving large capital inflows to the United States, the current account deficit in fact sets profitable conditions within the financial services sector. The widespread availability of funds for global investment gives rise to the commonplace observation that “the world is awash in liquidity.” But this may be detrimental to U.S. economic strength in the long term. While this inflow of relatively cheap foreign capital drives investment, it also continually suppresses U.S. savings, measured in 2005 at negative 0.5 percent.

This low savings is also symptomatic of a highly leveraged consumer base that comprises over two-thirds of the U.S. economy. Private debt has grown over 500 percent – more than 8 percent per year compounded over 20 years – and is more than inflation and GDP growth combined (Federal Reserve Board, 2006). There is little question that at some point, perhaps very soon, consumer debt servicing will limit consumption and economic growth. Historically low U.S. savings thus carries broad implications in terms of U.S. debt and U.S. borrowing abroad.

The long-term implications of current account capital flows are even more disturbing. Currently, the U.S. net investment position is negative, i.e., foreign investment in the United States is substantially higher than U.S. investment abroad. In the short term, this may provide liquidity to U.S. markets; in the longer term, it will result in substantial net outflow of income payments abroad, potentially creating a drag on the U.S. economy (Jackson, 2005). Additionally, the United States is increasingly borrowing from abroad in the form of debt, financing the growing U.S. deficit via foreign central banks (Roubini, 2006). Left unchecked, the burden of deficit reduction will increasingly fall onto the future income of Americans, crowding out future investment and limiting the growth of wealth. While foreigners will make more and more claims against the future U.S. economy and the public debt, there will be no analogous increase in the number of productive assets within the United States. U.S. capability to generate productivity – and pay off debt – will therefore be diminished. Financial services will feel the pain.

Debate concerning the degree of risk an imbalance of this magnitude carries for U.S. economic stability nevertheless remains open ended. What most can agree upon, however, is that this imbalance will not continue forever. Increasing debt and deficit spending relative to GDP has been shown to increase interest rates (Gale, 2004 and Engen/Hubbard, 2004). “The real question is whether the large-scale borrowing is sustainable.” (Gramlich, 2005, p. 4) Foreign investors’ confidence will at some point erode, and they will eventually decline the continued accumulation of U.S. equity claims and debt (Greenspan, 2004). But there is little hope of identifying when this tipping point will occur. For some unknown time, therefore, financial services will continue to profit from the liquidity that follows large capital inflows to the United States, even while the global U.S. economic position is likely to weaken. Some weakening can be accepted as the cost of operating in an increasingly globalized world where

national sovereignty tends to break down along economic lines. Nonetheless, the United States cannot permit modest economic leveling to turn into economic domination by potentially hostile nations or conflicting interests.

The solution to the current account imbalance and the growing national debt resides largely with U.S. government, but also includes the financial services industry. The most crucial step involves policies that generate increased savings by U.S. citizens – policies that must work, paradoxically, in a world that is already “awash” with excess foreign savings. The same growth in capital achieved via the foreign inflows could be realized through increased U.S. savings. In addition to reduced reliance on the inflow of foreign capital, the United States would experience lower future dividend, interest, and profit payments to the rest of the world (Brown & McCulloch, 2007). Should the United States find the political will to tackle this strategic issue, U.S. financial services must find innovative means to enhance U.S. savings and ensure the efficient allocation of capital throughout global markets.

For the time being, U.S. financial markets remain attractive. Financially, the United States still represents maturity, stability, and relatively high growth potential. U.S. financial services reside within a transparent framework of well-developed laws, property rights, and price-risk mechanisms, and this framework remains a sought-after means for efficient global allocation of capital, especially for emerging economies with high savings rates and much less developed financial infrastructure. In a highly interconnected world, U.S. comparative advantage in capital allocation and a persistent foreign preference for U.S. assets, in effect, promote the inflow of capital. The continued attractiveness of U.S. markets and services, however, is not a certainty. The U.S. current account deficit carries risk that could jeopardize U.S. standing in terms of economics and security.

Demographic shifts. Aging global demographics in the world’s largest economies will adversely affect the financial services industry. Front line issues center on entitlement costs and the reduction in available capital.

In the United States, an older population will result in fewer laborers per retiree, dropping from the current ratio of about 5 to 1 to an estimated 2.6 to 1 by 2050 (Rosenburg, 2006, p. x). An aging population will likely incur greater health care costs. The financing of retiree entitlements will become increasingly untenable. Future workers are likely to be strapped with higher entitlement costs that will yield a commensurate reduction in U.S. consumable income as well as apply downward pressure to GDP growth. The challenges before the United States are significant, but straightforward: reduce health care costs and encourage the U.S. population to save more for retirement as a means to reduce reliance on social security. U.S. delay in addressing these issues will almost certainly cause a higher degree of difficulty in any resolution, and will increasingly require a greater U.S. internal focus when success in a fast-moving and connected world depends on the ability to employ a sweeping external focus. The risk is compromise to the United States’ ability to finance its economy, with some loss of credibility and influence in the global economy.

Moreover, an aging global demographic could have ramifications for U.S. economic stability and national security. In just two decades, global household wealth in the world’s largest economies will be about \$31 trillion less than if we maintained today’s demographics (Farrell, 2005, p. 2). World-wide savings rates should also fall dramatically given the trend of younger generations saving less, and based on the expectation that people will generally save less after they retire. In this instance, the excess liquidity present today will dry up, reducing

capital for investment, with negative effect on economic growth. And the ability to address the issue of what the United States should do in an environment short on domestic savings and foreign investment will regrettably become more strategic than academic in nature. The combination of government policy and financial services innovation could mitigate or avert such conditions. Increased savings and more lucrative returns on investment are vital components in addressing the challenge of demographics.

Increasing global energy demands. Worldwide oil consumption is set to increase by nearly 50 percent by 2020 (Energy Information Administration, 2006). This increased demand with limited supplies will lead to significant cost. This will reduce the availability of capital as corporations and households spend more on their energy needs. This has a significant impact to financial markets as profit margins decline and investment sources are reduced.

Transparency and Regulation: An Asset or Hindrance in the Competitive Marketplace?

U.S. capital markets still maintain worldwide dominance due in large measure to their unparalleled transparency, a product of historical evolution that reduces information asymmetry, leveling the playing field for all investors. One of the goals of government regulation is to maintain this transparency, ensuring U.S. capital markets remain the best place for investment. With this goal in mind, the U.S. Congress passed the Sarbanes-Oxley Act of 2002 (Sarbox), following accounting scandals at some very large American corporations and in the wake of the burst of the “dotcom” bubble. The largest scandals consisted of accounting fraud, management corruption, and inappropriate loans to high-ranking company officials. These scandals resulted in bankruptcies, felony charges and convictions, the implosion of Enron, WorldCom, and destruction of the auditing firm Arthur Anderson, and billions of dollars lost from duped and stunned employees and investors. Perhaps the most damaging result was the diminished trust in America’s corporate accounting system. Left unchecked, this lack of trust and transparency could have devastating effects on the U.S. economy.

Thus, Sarbox was imposed to mandate:

Public companies must evaluate and disclose the effectiveness of internal controls as they relate to financial reporting; auditors for such companies must attest to such disclosure; certification of financial reports by chief executive officers and chief financial officers; auditor independence, including outright bans on certain types of work for audit clients; ban on most personal loans to any executive officer or director; accelerated reporting of insider trading; prohibition on insider trades during pension fund blackout periods; enhanced criminal and civil penalties for violations of securities law; and employee whistleblower protections. (Sarbanes-Oxley Act, 2007, 2-3).

In short, Sarbox is in line with historical U.S. legislation that ensures transparency of the U.S. markets. However, Sarbox may have reached too far in restrictive accounting reporting, thus driving significant additional compliance costs. Companies incur the largest costs when setting up internal structures and associated information technology. For smaller companies, this is a substantial investment that eats into operating cost. Legislative changes should focus on amending Sarbox to reduce the cost of compliance and increase the competitive advantage to individual companies, as well as the entire U.S. financial services industry. Other changes should aim at relaxing the requirements of management reviews of financial control, more

strongly emphasize the importance of risk management, and exempt foreign firms that can show compliance with similar home-country regulation. Additionally, Sarbox should provide a better definition for “material weakness” in order to focus companies on the relevant aspects of their financial controls rather than less significant items (Committee on Capital Markets Regulation, 2007, 3). Lastly, the current deferral of Sarbox requirements for small companies should be extended until the cost of Sarbox compliance is reduced. Clearly amendments to Sarbox are fitting.

Before turning to the strategic question of managing systemic risk, it is worth further discussing the broader issues related to financial services’ firms and investors’ ability to manage risk, an essential component of U.S. financial services industry competitiveness.

Managing Risk: Preserving the U.S. Financial Services Industry Advantage

“The law of the conservation of risk is like the conservation of misery. You can only pass it around, you cannot get rid of it”

*Tanya Styblo Beder, Principal, Capital Market Risk Advisors
Risk (February, 1999).*

All financial services involve varying degrees of risk. Banks bear the risk that their borrowers will not repay their loans. Borrowers with variable rate mortgages bear the risk that interest rates, and their monthly payments, will go up. Large manufacturers that pay in foreign currency for major system components bear exchange rate risk if the dollar depreciates, causing the price of those components to rise. The ability of the financial services industry to accurately identify and measure risk and offer products that allow investors to manage risk effectively is a significant element of U.S. competitiveness.

Some risks are just assumed by market participants. Some financial risks, however, are too great to just accept. They must be mitigated or transferred to other willing market participants. You can create financial risk, transfer it, and distribute it between market participants, but in general the risk does not go away. Risk management techniques can be as simple as just diversifying investment holdings and as complex as highly complex synthetic structured finance arrangements, credit swaps, and futures and options positions to limit risk exposure. Markets that provide for effective risk identification and management will have substantial competitive advantage over those that do not.

Risk Identification and Assessment. The identification of risk is the first step in effective risk management and the existence of dedicated, independent, accredited, credit rating agencies is critical to ensuring market confidence and efficiency. In general, market participants will price risk accurately when it is reasonably understood. As financial instruments have become increasingly complex – particularly with structured finance offerings that even relatively sophisticated institutional investors may be unable to assess risk effectively – the role of credit rating agencies has become even more prominent.

Credit rating agencies specialize in identifying and measuring the risk associated with individual equity or bond offerings. In the United States, accredited credit rating agencies are sometimes referred to nationally recognized statistical rating organizations (NRSRO). The Securities and Exchange Commission uses rules that proffer special privileges such as

streamlined disclosure on bond offerings to issuers that employ NRSRO in assessing their bonds and virtually all debt offerings are now rated by one of the three large credit rating agencies (S&P, Moody's, and Fitch). While there is a great deal of discussion of increased regulation of the NRSROs, up until now, regulation has been limited. In December 2004, the International Organization of Securities Commissions (IOSCO) published a Code of Conduct for credit rating agencies. All three major U.S. NRSROs have voluntarily signed this Code of Conduct, very likely reducing the probability of more formal regulation by the SEC.

While there appears to be a desire for additional firms to compete with the big three NRSROs, in general, the U.S. financial markets benefit from effective and independent credit rating agencies. Improvements can and should be made in their regulation, including adopting a recommendation of the American Securitization Forum (2006) so that the credit rating agencies would be required by the SEC to disclose their actual ratings performance over time to encourage greater competition between the credit rating agencies. Such disclosure would encourage competition by correlating predicted performance of rated equities and debt with actual results and would further increase transparency into an already outstanding portion of the financial services industry. Ultimately, these NRSROs will continue to provide the trust, confidence, and integrity that draw investors to U.S. markets.

Role of Derivatives in Risk Management. The U.S. financial services industry has developed a remarkable set of capabilities and products that together give investors a world class capability for risk management, including well developed options markets, futures markets that cover a wide range of commodities and financial instruments, and financial insurance products. Together, these instruments provide increasingly complex and creative methods of transferring and distributing risk but also provide opportunities for market speculation.

Today, one of the most common and controversial risk management tools is the use of derivatives. Derivatives are financial instruments that have no intrinsic value, but derive their value from something else. Derivatives provide mechanisms for businesses to hedge the risk of owning things that are subject to unexpected price fluctuations, e.g., foreign currencies, bushels of wheat, stocks, and government bonds. There are two main types: futures, or contracts for future delivery at a specified price, and options that give one party the right to buy from or sell to the other side at a prearranged price (Davies, 2007).

It is the ability to use derivatives for market speculation that has led to a great deal of criticism and even outright restrictions on their use. In February 2007, the Indian Futures Commission delisted wheat futures from the futures markets in India in an attempt to curb inflationary pressures. Since that action, wheat prices have continued to increase, reinforcing the fact that speculation may increase prices in the short run, but has essentially no effect on long-term prices (Yale Law Journal, 1951).

Still, there is a great deal of concern about the potential systemic risk associated with the large volume of derivatives activity. Warren Buffet commented in Berkshire Hathaway's 2002 annual report that derivatives were "time bombs, both for the parties that deal in them and the economic system." However, even after warning on the risk of derivatives, he went on to note that "certain Berkshire finance affiliates utilize derivative instruments as risk management tools." He even identified the specific range of risk mitigating tools that his company typically employs including "interest rate, currency and equity swaps and options, interest rate caps and floors, futures and forward contracts and foreign exchange contracts" (Buffet, 2002).

It is vital that the U.S. financial markets continue to make a broad range of derivative products available for risk mitigation as well as the inevitable opportunity for speculation. Speculators provide much needed liquidity in derivative markets, bridging supply and demand between hedging market participants. Current regulation and market supervision of futures and options markets have proven to be effective and appropriate.

Application of Risk Management – Hedge Funds. One financial instrument that makes extensive use of derivatives as a way of managing and bounding risk is hedge funds. Hedge funds have become a lightning rod for criticism and calls for more robust regulation. Hedge funds are normally set up as limited private partnerships investing in publicly traded securities. Hedge funds, unlike mutual funds, use aggressive strategies such as taking long and short positions, and using arbitrage, options, futures and other complex derivatives to attempt to enhance investment returns while limiting risk exposure. Hedge funds are not required to register with the Securities and Exchange Commission; however, they are subject to prohibitions against fraud, and their managers have the same fiduciary duties as other investment advisers.

Despite the criticism that hedge funds contribute to market volatility and uncertainty, they do provide important market benefits. Hedge funds provide a significant amount of liquidity and stability to the financial markets. For wealthy investors (who are presumed to be “sophisticated” and better postured to withstand losses), they provide the opportunity for higher investment returns in exchange for potentially higher risk levels, presuming that the funds themselves use hedging to limit risk. Even where hedge funds are employing derivatives in a manner more in line with speculation than risk hedging, it is important to remember that investment in hedge funds is limited to accredited investors with a net worth exceeding \$1 million or income exceeding \$200,000 (or joint income exceeding \$300,000 in the past two years) and the investors presumably should be able to withstand any losses.

In general, we believe that any significant attempt to further regulate hedge funds would be ineffective and potentially disruptive to the U.S. financial system. Nevertheless, although we believe that current restrictions limiting investors in hedge funds to accredited investors are appropriate, we do see the merit in limiting participation by pension funds beyond a very limited percentage of their assets. Moreover, SEC proposed increases in the minimum net worth for potential investors to \$2.5 million would be appropriate and would reduce the number of those eligible from 8.47 to 1.3 percent of Americans.

It is critical that hedge fund investors bear the full risk for their investments in hedge funds. Any bailout or even perceived bail out of hedge funds by the government may create the perception of moral hazard and encourage investors to take more financial risk than would otherwise be appropriate. We recommend that the SEC and Federal Reserve reinforce through public statements that bail outs would not be entertained.

Within the U.S. financial services industry, these limited regulatory modifications, coupled with adjustments to Sarbox, should offer investors adequate protections to ensure transparency while giving sufficient options to manage risk and create high returns to continue to build national wealth. Risk, however, is also a question for policymakers at the strategic level as they look to ensure the smooth and resilient operations of the U.S. financial services industry within an interconnected world. We will next explore these dilemmas of managing systemic risk.

Financial Market Systemic Risk: Preventing a Meltdown

The world today is reaping the benefits of a healthy global economy. In 2006, the global economy grew by 5.6 percent, world trade grew by 9.2 percent and \$256 billion dollars in private funds flowed to emerging markets (Financial Times, 02 May 2007). The globalization of the financial services industry has resulted in innovative debt, equity, and risk management products that have reduced volatility and promoted liquidity. Improvements in the global regulatory environment and information technology have resulted in a greater degree of interconnectedness. In short, the global economy remains on track for what the IMF refers to as “robust growth for 2007 and 2008” (Financial Times, 02 May 2007).

However, systemic risks to the health of the global financial industry and ultimately the United States remain. The increasing call for protectionism within the United States and the increasing complexity of financial derivatives threaten the long term health of the global economy and the United States in particular. As Gerald Corrigan, (former NY Fed President and current Goldman Sachs Partner) states, there is a “virtual consensus” that the statistical probability of a financial meltdown has decreased over time as a result of financial innovation; however, the impact of such a meltdown, should one occur would be more severe (Beales, Davies, & Plender, 2007).

Financial shocks by definition are surprises. The increasingly interconnected global financial industry has resulted in increased potential sources (and victims) of shocks. (Beales et al., 2007). Changes in perceptions regarding risk could result in a widening of credit spreads, inflicting large losses on traders. Subsequent failures of large hedged funds or banks might trigger a liquidity crisis that could spread to other regions or institutions (Beales et al., 2007).

Increasing Complexity of Derivatives

The development of financial derivatives such as credit default swaps, interest rate swaps, and collateralized debt obligations has been a primary tool for managing risk and has served as both a source of liquidity and stability within global financial markets. However, the development of innovative tools to manage risk does not eliminate the underlying risk itself. Rather, the development of new tools for securitizing risk has encouraged many investors to move up the risk curve. Consequently, derivatives have become a primary source of systemic risk as the complexity of these instruments increasingly masks the level of risk embedded within them, making it virtually impossible to both price the underlying risk accurately and develop an accurate picture of an institution’s exposure.

Were there to be a severe financial shock, the feature of derivatives that enables them to serve as shock absorbers to spread risk across multiple investors could become a contagion. Due to the complexity of derivatives transactions, firms may not fully understand their full exposure until liquidity dries up, leaving them unable to escape from their positions (Beales et al., 2007). Furthermore, the complex “web of exposures” among highly leveraged institutions may increase the likelihood that problems in one region of the world or institution may become a problem for other institutions (MacKintosh, 2007).

While the market has effectively managed the failure of several institutions resulting from illiquid derivative exposures, the face value of all derivatives contracts recently surpassed

\$450,000 billion, several times larger than the entire gross domestic product of the global economy. A significant shock to the derivatives market would likely be uncontrollable by a single authority, but rather would require multilateral cooperation by the world's central banks and financial institutions (Tett, 2007).

The Specter of Protectionism

Protectionism that fails to take into account the interconnectedness of global financial markets could have dramatic negative consequences on the United States and the global economy writ large. Import barriers redistribute income from domestic consumers and importers to domestic producers. In a consumption-centric economy, this could have unintended negative consequences as capital that would otherwise flow to more competitive firms or industries is inefficiently allocated to less competitive firms (Irwin, 2005).

However, there are other global effects. An increase in trade barriers would negatively impact countries such as China that rely largely on exports (primarily to the United States) for their economic stability. Given the interconnections in global financial markets, a loss of investor confidence in China or other emerging markets could have cross-over effects on other financial markets as investors attempt to unwind their positions and liquidity dries up. Even if the financial marketplace could absorb the losses, there remains the question of the effect of capital outflows from affected countries. Export-centric economies could be severely disrupted as foreign investors' capital flees to safety. Widespread economic hardship in an emerging market country could result in political instability.

The United States must resist the temptation to address difficult global trade issues by shifting toward a policy of increased trade barriers and protectionism. Rather, the United States should continue its efforts to remove trade barriers, foster fair trade practices, and sharpen U.S. policy focus on improving U.S. competitiveness while assisting those that have been negatively impacted within industries in which the United States does not have a comparative advantage.

Emerging Markets: Competition or Partners?

The focus of protectionist leanings within the United States increasingly targets emerging market economies. These markets have attracted significant investor interest over the last several years for their high rates of return in comparison to the U.S. domestic market. Among all the emerging market countries, why did we concentrate our studies on India and China? Besides being the two most populous nations on earth, China and India are at the forefront of U.S. political attention for the competition they pose to U.S. industry – China for its role in the U.S. trade deficit and India for its role in U.S. firms' outsourcing of back office functions. These economic policy interests are magnified when viewed through the lens of the broader U.S. foreign policy agenda, which seeks the peaceful integration of these emerging powers as constructive partners within the international community. Shaping favorable bilateral economic and political relationships with these increasingly influential nations is vitally important to U.S. national interests.

At the same time, the differences between these emerging giants are striking. China's authoritarian system stands in stark contrast to India's thriving democracy. While China basks in glut of captive savings, India has a scarcity of capital. China's economic boom is driven by its exports, while India is looking toward a domestic demand driven model for its future. These and

other issues merit deeper consideration at the strategic level and warranted on-site assessments by our Financial Services Industry Study Group.

The Long March of Chinese Financial Reform

水能载舟，亦能覆舟 (shuǐ néng zǎi zhōu, yì néng fù zhōu)

Translated: The water that bears the boat is the same that swallows it up ~ Chinese Proverb

A discussion of trends, challenges, and opportunities in the global financial services industry would be incomplete without a discussion of China.

The eyes (and wallets) of the world are watching China's economic progress as its GDP has grown at a pace of seven to eight percent per year to make up four percent of the global economy (McGunagle, 2006). China's 2006 foreign direct investment totaled nearly \$70 billion; its trade surplus was \$177.5 billion, a 74 percent increase over the previous year (Liu, 2007). All of this economic activity has swelled the country's foreign reserves to over \$1 trillion (increasing at approximately \$17 billion per month) (Wehrfritz, 2006) and has made China "the place to be."

However, as robust as the growth of the Chinese economy has been, its financial markets have not kept up in terms of either scale or sophistication. China's largest national banks have hovered near insolvency, burdened by non-performing loans made to state-owned enterprises (SOE). Individual investors have few investment alternatives. Small businesses are unable to obtain financing. Even the country's largest private companies do not have access to corporate debt markets (and limited access to equity markets). The result is an economy that fails to make the most of its capital. The rising tide of capital may be floating the proverbial Chinese economic junk, but only robust, transparent capital markets will keep it afloat.

In Chairman Mao's utopian communist society, the peasant is the hero of the Chinese people. Certainly from the perspective of China's economic growth to date, he was correct; the individual investor has provided the fuel for China's astounding economic development. The Chinese are a nation of savers, stashing away an estimated 37 percent of their income (Farrell and Lund, 2006, p. 6). They have to be; the Chinese lack social safety nets for healthcare, education and retirement. Consequently, over 86 percent of household savings are in low-yield bank accounts (with an average return of 2.5 percent, *before* inflation and taxes) (Farrell and Lund, 2006), making up almost half of the 16 trillion RMB (approximately \$ 2 trillion) in the country's bank accounts (Paulson, 8 March 2007).

China's banks act as the intermediaries for 75 percent of the capital in the legitimate economy. Unfortunately, they have not produced for the Chinese investor. Over the past 10 years, Chinese savers have earned a return of .5 percent on their money (Farrell and Lund, 2006). The combination of rising health care costs, the lack of a retirement system, the country's One Child policy and increased life expectancies is conspiring to create a population that threatens to "grow old before it grows rich" (Zoellick, 2007).

With the exception of mortgages, consumer loans are almost unheard of. Even car loans have become scarce after credit-naïve borrowers failed to pay back their loans, causing the car loan market to collapse (Krause, 2007). A lack of credit rating agencies, weak property rights laws, inconsistent (some would argue, non-existent) collateral rules, and poor consumer education have made China's largest pool of investors a questionable credit risk in the eyes of Chinese bankers. Consequently, many Chinese must save if they want to buy durable goods.

China has begun to diversify its investment options by offering mutual funds. Chinese mutual fund capitalization jumped from \$60 billion at the beginning of 2006 to \$110 billion in

assets by the end of the year (Gimbell, 2007). Much of this growth can be attributed to two factors: the shift of \$17 billion in funds from savings accounts and the growth of the Chinese Stock Market (Gimbell, 2007). The mutual fund industry has benefited from increased foreign involvement more so than any other aspect of China's capital markets; 24 of 58 licensed fund managers are ventures with minority foreign companies (FT.com, 2006) that account for almost 40 percent of domestic mutual fund assets under management (Gimbell, 2007).

However, the most rapidly growing investment category for Chinese individual investors has been the stock market. Chinese investment halls have been described as having a "gambling hall like atmosphere." For good reason, Chinese investors are opening 90,000 brokerage accounts per day (Aredidi, 2007). By the end of 2006, "China had 80.6 million stock investors, 4 million more than the United States" (FT-Asia, 2007). According to the China Securities Regulatory Commission, China's individual investors accounted for the purchase of 80 percent of all tradable stocks (FT-Asia, 2007). Combine Chinese enthusiasm for the stock market with the limited equity offerings, and it is easy to understand why the Shanghai Exchange has been run up to over 35 times projected earnings (compared to 15 times earnings for the S&P 500) (Balfour and Roberts, 2007). Rampant speculation could have disastrous consequences, not only for China, but also global capital markets as Chinese investors continue to withdraw their savings and play the market with little investor education and unreliable company research.

Today, China's middle class, defined as those with an annual income of at least \$5,000, numbers 50-75 million people. By 2015, that number is expected to grow to over 290 million people. (Krause, 2007) If China is going to successfully balance its economy between exports and domestic consumption, it must develop an educated investor pool, establish more robust financial services to build wealth, manage credit risk, and promote consumption for its population.

If investor deposits have been the fuel for China's economy to date, private companies have emerged as the engine, contributing to 75 percent of China's GDP. However, three-fourths of China's bank financing goes to state-owned companies (Paulson, 2007). The reason is simple: moral hazard – banks are far more willing to risk a bad loan to a state-owned enterprise than risk loaning to a private enterprise. Lenders know through numerous examples, the government will bail out an SOE that fails to service a loan (Gregory and Tenev, 2001).

Equity issues reflect a similar trend; state-owned industries launch most equity offerings and pay little in the way of dividends (Paulson, 2007). While government regulators no longer select which companies can make equity offerings (those in line with national industrial policies), they do control which companies can list on an exchange (Farrell and Lund, 2006). The result has been an extremely small equity market. In 2005, China's equity market capitalization (excluding state-owned, non-tradable shares) was only 17 percent of GDP. This is extremely low when compared to the 60 percent average of other developing Asian nations (Paulson, 2007 and Farrell/Lund, 2006).

The corporate bond market suffers from a similar undercapitalization; representing only 1 percent of GDP as compared to the Asian developing country average of 50 percent. Interest rates on bond issues are set by regulators and the accompanying red tape results in 14-17 month debt issuance timelines (Farrell and Lund, 2006). To make matters worse, bond issues are exclusively launched by state-owned enterprises, precluding participation by the private sector. Before a corporate bond market can take hold, China must develop its government bond market, establish a market-driven yield curve, and develop rating organizations such as Moody's to accurately price in risk of debt issues (Farrell and Lund, 2006).

Given the scarcity of equity offerings and the absence of bond issue opportunities, how does a private company raise capital? Only 27 percent of all bank loans were made to private companies (Farrell and Lund, 2006). To provide the capital required for growth, private sector companies have relied heavily on internal financing (retained earnings), foreign direct investment, or what Secretary Paulson (2007) refers to as the “informal sector.” Informal lending is estimated to total approximately \$100 billion in assets at interest rates much higher than the formal lending market (Farrell and Lund, 2006).

The impact of immature corporate investment capital markets is far worse than simply increasing non-performing loans. A more serious impact on the Chinese economy, one that has been masked by the continued inflow of foreign capital, is a decline in overall return on investment capital. According to Farrell and Lund (2006), in the 1990s, \$1 of GDP resulted from \$3.90 in investment. Since 2001, \$4.90 has been required to achieve the same \$1 of growth – “nearly 40% more than that required of South Korea and Japan during their periods of growth” (Farrell and Lund, 2006). Clearly, China’s financial system must change if it is going to sustain long-term growth and prosperity.

Secretary Paulson’s (2007) comments concerning the need for reform ring true – the best time to implement changes is during a period of economic strength. The Chinese understand this and have been marching toward modernization for some time. Their leadership is striving to establish what they refer to as a “Harmonious Society.” This is a balanced development between the interior and China’s coast, rich and poor, the city and the countryside (Farrell and Lund, 2006). However, the Chinese leadership finds itself in a quandary. It must modernize its financial institutions at a pace fast enough to sustain growth and promote foreign investment, but not so rapidly as to disrupt the social fabric and economic underpinnings of almost 250 million people employed in SOEs. It must expand the depth and breadth of its capital markets in order to allow capital to be more efficiently allocated, yet phase in its modernization in such a way as to minimize volatility. The following is an overview of China’s ongoing efforts to modernize its financial institutions.

Continue Banking Reforms. The central government has initiated banking reforms by promoting foreign minority ownership through initial public offerings; however, the percentage of foreign ownership has been capped at 25 percent (Bremner, 2006). Chinese banks have improved their transparency, enhanced loan officer training, and have begun to elect independent board members (Lo, 2006). Furthermore, Chinese regulators have allowed foreign-owned banks to register as local entities and begin to offer financial products. The central government’s theory is that a combination of competition and foreign partnerships will attract talent, technology and improved business processes critical to Chinese bank modernization. This modernization must continue in such a way as to promote direct competition among China’s banks.

Continued Equity and Bond Reform. China must continue to modernize its equity and bond markets if it is going to provide competition for and alternatives to bank loans. Private companies must have greater access to equity and debt markets. Equity and bond targets as a percentage of GDP should be on par with other Asian developing countries. Until the most effective users of capital have access to equity and bond markets, capital will continue to flow inefficiently and return on invested capital will likely continue to decrease.

Expand China’s Institutional Investor Environment. Institutional investors provide the backbone of most nations’ equity and bond markets. They bring experienced analysts, deep pools of capital and informed fund managers. A healthy institutional investor environment

reduces reliance on individual investors and the resulting volatility caused by the psychology-driven entry and exit of unsophisticated or speculative investors. Expanding China's Qualified Domestic Institutional Investor (QDII) program would improve the offering of investment products to Chinese investors and allow them to "diversify their holdings and earn higher risk-adjusted returns," (Paulson, 2007) all under the management of professional investors.

Establish Credit and Corporate Rating Services. Without credit rating agencies or corporate rating services, it is impossible to price risk accurately or identify where the most efficient users of capital are likely to be. China must develop an individual credit rating capability and partner with companies such as Moody's to improve corporate research and valuation. Without such data, "even Warren Buffet would be a speculator in this market" (Balfour and Roberts, 2007).

Promote Venture Capital/Investment banking. Given the under-served nature of the private corporate financing environment, the introduction of venture capital and private equity investors would provide capital inflow that could result in greater innovation and entrepreneurship. A formalized venture capital market would redirect capital to those organizations with the most innovative ideas and greatly enhance China's domestic science and technology sector. China must find a balance between government oversight and investor control of companies. Until this happens, most private equity firms will be unwilling to enter into control sharing agreements.

Improve Investor Education and Development of the Middle Class. China must strike a balance between its export-driven economy and the need to promote domestic consumption. Through incentives to strengthen the middle class, China can improve economic diversity within its economy and through wealth creation, enhance the safety net of its population. However, re-balancing China's economic strategy will require reversing the last decade's downward trend in private consumption as a share of GDP, which by 2005 accounted for only 38 percent of China's GDP, the lowest share of any major economy in the world (Lardy, 2007, p. 2).

However, burgeoning investors must be taught the risks and rewards of sound investment strategies. The gambling mentality of the current equity market environment must be suppressed. Failure to do so will result in continued volatility as well as promote fraud and other investor confidence threatening activity. China must recognize its markets are now part of an interconnected global financial system and act accordingly.

Liberalize Currency Exchange Rates. While China has shifted to a market basket of international currencies, the People's Bank of China continues to intervene in the foreign exchange market to buy dollars with renminbi in order to maintain an artificially low value of the currency. Additionally, it offsets these transactions through "sterilization" operations to sell bonds to investors in exchange for renminbi to avoid an inflation-inducing increase in the money supply (Bernanke, 2006, p. 14).

In addition to raising concerns in the United States and other manufacturing nations, the artificially low value of the currency undermines the PRC's ability to pursue a consumption-oriented strategy. A higher valued renminbi would likely make imports for Chinese consumers less expensive. Furthermore, the undervalued currency reinforces Chinese firms' focus on export markets – and in many cases, their tendency to build up excess capacity from inefficient investment decisions – rather than inducing them to cater to the Chinese domestic consumer.

China's Economic Reform: U.S. Policy Implications. Contrary to many Chinese pundits' views, the United States wants and needs a prosperous, stable China. The economic benefits

China provides the United States are irrefutable. Their low-cost, high-quality exports make the United States, on balance, \$70 billion richer each year. Chinese investments in American financial assets (e.g., financing our current account deficits), have directly helped restrain U.S. inflation and interest rates, while enabling economic growth and job creation (Bergsten, Gill, Lardy, & Mitchell, 2006, p. 10). Consequently, we must refrain from the temptation to engage in “China bashing” and continue to make the modernization of China’s financial sector a top policy concern of the United States.

China’s growth over the last decade has been remarkable by any standard. However, as any investment prospectus will tell you, past returns are not a guarantee of future performance. Although China has taken bold steps to modernize its financial industry and has demonstrated openness to outside assistance, continued international cooperation will be an essential element of achieving China’s goal of a “Harmonious Society.” China has several monumental challenges facing it with regard to financial diversification. Expansion of its debt and equity markets, modernization of its banking system, the development of an institutional investor base, the establishment of credit rating services, the education of individual investors, and the development of modern regulatory regimes are all critical building blocks in China’s financial future. The United States and China must continue to foster their relationship through the Strategic Economic Dialogue and develop a “doctrine of interdependence.” Through greater interaction and patience, a balance can be struck between the need for reform and the pace at which China can absorb the changes.

India: A Democratic Model of Gradualist Reform

Of the emerging market countries, India is generally considered as having the most long-term potential based upon their participatory system of government and growing economy (McClenahan, 2007, p. 2). India’s economy is booming in no small part due to \$5 billion invested by U.S. firms such as Intel, Microsoft, and Dell over the past decade. With a burgeoning U.S.-India bilateral relationship, represented in part by the civilian nuclear power agreement, it would seem that India’s future is bright (Knowledge@Wharton, 2007, p. 1). However, a well-fed IT sector cannot necessarily overcome “rampant poverty, a looming HIV/AIDS crisis, and creaking infrastructure” (Knowledge@Wharton, 2007, p. 1).

Services, in fact, are India’s primary source of economic growth, representing more than half its output, and in particular India capitalizes on its large, well-educated, English speaking work force for software services that have established it as the “world’s back office.” However, 60 percent of the work force are in agriculture and make up the majority of India’s rural poor. It is this huge and growing population that is “the fundamental social, economic, and environmental problem for India” (CIA, 2007, p. 7).

Despite India’s predicted macroeconomic rise to the world’s third largest economy in 2050, with the potential to raise its per capita income 35 times current levels, it will remain in the bottom tier as measured by per capita income (Wilson, 2003, p. 10). India’s huge and growing population will overtake China’s in the coming years, offering opportunities for India’s consumer-driven growth, but placing formidable burdens on the Indian government’s ability to provide infrastructure, education, and social services.

What is the Indian government’s response to these challenges? India’s balance of payments crisis in 1991 was the catalyst for an era of economic reforms that continues to this day. As highlighted by Montek Ahluwalia, the Deputy Chairman for India’s Planning

Commission, India is following a strategic plan of gradualist reforms that, if successful, will sustain growth at eight percent, the official government target. The pace of gradualism is dictated by the political constraints of coalition government and politicians' need to appeal to a broad popular base. The plan covers policy changes in five major areas: infrastructure development, fiscal deficit reduction, industrial and trade policy, agricultural policy, and social sector development (Ahluwalia, 2002, p. 1). In all of these areas, the financial services industry offers opportunities for India to advance by offering market-based solutions to attract and efficiently allocate capital. In this respect, India offers an intriguing model for the rest of the developing world.

India's Capital Scarcity Problem. India's infrastructure challenges are familiar to the rest of the developing world. Within the growing economies of east and southeast Asia, however, India's infrastructure development for electric power, transportation, and telecommunications continues to lag behind (Ahluwalia, 2002, p. 7). While India has made some progress in telecommunications, civil aviation, and ports, the electrical capacity and road system remain woefully inadequate, and reforms in the railway system are just beginning. In the developed world, these areas could be addressed with public monopolies.

Unfortunately, soaring government deficits at both the central and state levels constrain government spending on infrastructure. India's consolidated fiscal deficit (including both central and state deficits) is approximately 6.3 percent of GDP, with central government debt around 60 percent of GDP (EIU, 2007, p. 3). Thus, improving fiscal discipline is essential for future economic growth. But in the face of staggering requirements for increased capacity and improved quality, India is turning to public-private partnerships and other market-based solutions. The Indian government has a goal of raising \$320 billion in infrastructure investment funds, of which it assesses \$150 billion could be met through foreign direct investment.

Another serious challenge to sustaining targeted levels of economic growth is India's ability to maintain sufficient savings rates and capture these savings within the formal banking system. Although the Indian savings rate is not as high as China's, it is probably adequate to fuel economic growth; India's domestic savings rate reached a record level of 29.1 percent in 2004-2005 (Chandrasekhar & Ghosh, 2006, p. 1). However, Indians traditionally invest in property, including gold, rather than make bank deposits. Furthermore, large segments of the Indian population lack access to capital for investment. A growing trend in the Indian financial services industry is to use microfinance to tap into this new market "at the bottom of the pyramid." In this area as well, market-based solutions may offer a model for elsewhere in the developing world.

However, the Indian government also needs to further liberalize the banking sector to adequately tackle the capital scarcity problem. As a McKinsey study points out, "the root of this capital squeeze is government dominance of India's financial system" (Farrell, 2006, p. 10). Financial investors are required to hold a large portion of their assets in government securities. Additionally, by regulation, banks are required to invest 26 percent of their portfolios in the government's priority sectors. Thus, the government is effectively limiting growth through these regulations.

Nevertheless, India's scarce capital is more efficiently allocated than in neighboring China. And although the corporate bond market is largely undeveloped, India boasts an otherwise diverse array of investment options, including a strong stock market that is transparent and among the best in the developing world.

Unleashing the Market and Loosening Indian Government Control. The legacy of decades of Indian government control over the economy continues to hinder economic growth. Limited government capital is too often invested in subsidies to poor-performing sectors of the economy, while the government is unable to capture sufficient tax revenue to pay for these subsidies. In the areas of industrial and trade policy, India has made significant progress, but not at a pace to remain competitive. The government has reduced the number of industries it controls from 18 down to 3 – defense aircrafts and warships, atomic energy generation, and railway-transport (Ahluwalia, p. 3). However, the pace of conversion was slow and the effectiveness of ongoing industrial liberalization remains stymied by state bureaucracies. While India has reduced trade tariffs significantly since 1991, they remain among the highest in the developing world (Ahluwalia, p. 5). Significant barriers remain to allowing foreign investment in the financial sector as well. Reducing the government share of these sectors and liberalizing the trade and foreign investment regime would allow capital markets to play a more prominent role in fueling economic growth.

Agriculture, India's largest employer, also offers a promising area for the financial services industry to promote economic growth. While agriculture has benefited from trade policy changes, its growth remains hampered by the decline in critical public investment for irrigation, soil conservation, and rural roads (Ahluwalia, p. 6). Without an integrated national agricultural market, this industry has suffered because of deterioration in the fiscal position of state governments and inefficient political decisions over the limited funds that are available. However, the Indian National Commodities and Derivatives Exchange (NCDEX) is working to modernize the agricultural sector by offering electronic-based commodities futures trading, giving Indian farmers around the country access to world price information. By combining this price dissemination function with warehousing and facilitation of commodities financing, NCDEX is helping transform the agricultural sector, minimizing intermediaries' role, improving the return individual farmers receive, and reducing price volatility. This market-based approach to applying financial market mechanisms to agriculture may have significant applications throughout the developing world.

Will the market-based approach to reforming financial services and the rest of the Indian economy ultimately succeed? As the world's largest democracy, India's ability to bridge deep-seated interests and cultural differences across political, cultural, and state boundaries will continue to pose a formidable challenge.

India as a U.S. Partner. What does the growing role of India's economy and the health of its financial services sector mean to U.S. interests? If India were to prove successful in their reforms and grow at eight percent per year, could it pose a challenge to the U.S. economy? Certainly, if India becomes a significantly more attractive market for the vast amounts of global liquidity than the United States, it could affect levels of investment in the U.S. markets. However, on balance India offers far more opportunities for partnering with the United States than it poses threats. For U.S. firms, India offers an unparalleled opportunity for new consumers and investments. At the strategic level, India offers U.S. leaders a new and dynamic strategic partner on a global range of political, security, and development concerns.

Clearly, both India and China will continue to shape the face of the global economy. As U.S. firms and investors find ways to benefit from these dynamic new markets, the U.S.

government should continue to encourage and support them on their unique paths of reform. Through partnerships with emerging markets, the U.S. financial services industry – and the United States as a whole – can enhance its own competitiveness and minimize the threat of instability overseas undermining progress at home.

Conclusions and U.S. Policy Recommendations

The United States has choices; the fate of the nation’s economy and financial services industry is not written in stone. However, continuing down the present path of persistent deficit spending and negative savings – despite the short-term liquidity benefits derived from a substantial inflow of foreign financing – increasingly represents a decision to accept reduced national productivity and economic stagnation in the long term. A decelerating U.S. economy would be forced to contend with the mounting pressures of increasingly elusive solutions to economic challenges such as entitlement spending. And the United States would be required to readjust a strategic eye inward as the advance of globalization increasingly compels maximum external engagement and flexibility. Eventually, the United States would be forced to concede at least some measure of its competitive footing in the global economy – sadly, for reasons more closely related to a lack of vision and political will than capability to execute.

Moderate corrections in financial industry practices and regulatory control today will avert such a scenario, while affording near-immediate improvement in economic conditions for both financial institutions and consumers. And in light of the emergence of major and market-defining international powers like China and India, the United States’ best approach is a comprehensive engagement policy, emphasizing leadership through partnership vice coercion. To this end, the following U.S. policy recommendations are proposed in three key areas: fiscal and monetary policy, the regulatory regime, and foreign policy.

Fiscal/Monetary Policy

1. Limit deficits as a percentage of GDP (in size and duration, outside of periods of national crisis) to reign in the federal deficit and debt. Focus on controlling non-discretionary entitlement spending is a priority.
2. Encourage higher savings rates through tax incentives. Better educate the populace on the negative ramifications of debt and the benefits of savings. These steps are instrumental to reverse the current account imbalance and excess foreign savings.

Regulatory Policy

1. In order for the United States to enhance its competitive advantage of safe and secure markets, Sarbanes-Oxley should be revised but not revoked. The SEC should clearly define “material weakness” to reduce the occurrence of frivolous restatements. Once the cost of compliance is lowered, then all companies should be required to comply. Additionally, all audits for Sarbanes-Oxley compliance should be done every two to three years vice annually. Lastly, foreign firms that can show they comply with similar home-country regulation should be exempt. This will help prevent foreign companies from delisting in the United States.

2. Since import barriers tend to allocate capital inefficiently, the United States should continue to advocate for removal of trade barriers and reduction of protectionism. The United States should set the example in this regard.
3. The SEC should require credit rating agencies to disclose their ratings performance over time. This would encourage greater competition and even more transparency in the credit rating sector.
4. The SEC should resist the temptation to dramatically regulate hedge funds while continuing to limit hedge fund participants to accredited, sophisticated investors. Since hedge funds provide a significant amount of liquidity and stability to the financial markets, over-regulation could curtail this important aspect of the market. However, hedge fund investors should be explicitly informed that they bear the full risk of their investments and not to expect a government bail-out to cover losses. This will lessen the moral hazard of hedge fund investors taking on inappropriate risk. Finally, in order to decrease pension fund exposure, pension fund participation in hedge funds should be limited to a certain percentage of pension fund assets.

Foreign Policy

1. Credit rating – U.S. regulators should work with foreign counterparts to establish credit and corporate rating services by developing standards of conduct, rules for transparency, and timely disclosure that adequately inform and inspire confidence. Trustworthy credit ratings help open markets by identifying risk for investor and banks loaning money.
2. China – The United States should continue to foster its relationship with China through the Strategic Economic Dialogue and develop a “doctrine of interdependence.” China has several monumental challenges facing it with regard to financial diversification. The development of an institutional investor base, the establishment of credit rating services, and the development of modern regulatory regimes are all critical building blocks in China’s financial future. However, the United States must recognize that China will only modernize at a pace that will maintain social and economic stability – something of interest to both the United States and China.
3. China – The United States should encourage the government of China to implement a social safety net covering pensions, health care, and education costs in order to reduce the need for savings and encourage consumption by Chinese consumers.
4. China – The United States should encourage China to continue banking reform and broaden equity and bond markets to provide alternatives to bank savings for Chinese investors and opportunities for foreign investors.
5. India – The United States should encourage India to further explore creative public-private partnerships to improve infrastructure development, enhancing India’s competitiveness in the global market.
6. India – The United States should encourage India to develop a corporate bond market as an alternative source of capital for investment.

7. India – The United States should encourage India to allow more foreign investment in the financial sector and manufacturing sector.
8. India – The United States should support ongoing efforts by the National Commodities and Derivatives Exchange to modernize agricultural distribution and pricing, exploring the application of this model to other developing economies.

America's future security is closely coupled with its financial services industry. As the foundation for U.S. economic growth, the financial services industry creates the national wealth that underpins U.S. military and diplomatic power. Indeed, without a strong financial services industry, the United States will lack the wherewithal to project its influence and protect its interests around the world. Today, the United States is walking a tightrope, trying to balance regulation and risk, debt and savings, global competition and partnerships. By implementing our recommended policy changes, the United States can preserve the credibility, reputation, and resiliency of the U.S. financial services industry while shaping the global financial system to foster opportunities for continued global economic growth.



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