European Research Studies, Volume X, Issue (1-2) 2007

The Future of the U.S. Dollar and its Competition with the Euro

By Alex Kondonassis¹, A.G. Malliaris², Chris Paraskevopoulos³

Abstract:

Since the collapse of the Bretton Woods Global International System in 1971, the world economy has experienced significant currency volatility. The major economies of the world have addressed such volatility differently. The EU has chosen to follow a monetary union and introduced successfully a new currency. The U.S. has paid less attention to the fluctuations of the dollar and has pursued an independent monetary policy to promote national economic stability. Japan has seen its currency appreciate significantly. This paper argues that while trade and growth across the globe are doing well, financial developments are intensifying the competition between the U.S. dollar and the euro. Three possible future scenarios are developed and discussed.

Keywords: U.S. Dollar, International Monetary System, Global Currencies, Euro

JEL Classification: F01, F31, F33

1. Introduction

One of the best years in several decades for global GDP growth was 2004 when it rose slightly above 5 percent (see Figure 1). Most major parts of the world recorded improved growth performance. Similar growth continued during 2005 but at a slightly reduced pace. Despite the surging energy prices, prospects for 2006 remain favorable. Such growth is projected to fall from about 4.5 percent in 2005 to about 4 percent in 2006 as shown in Figure 1.

¹ Professor of Economics at the University of Oklahoma, Email: ajk@ou.edu

² Professor of Economics and Finance at Loyola University Chicago, Email: tmallia@luc.edu

³ Professor of Economics at York University, Email: chrisp@yorku.ca

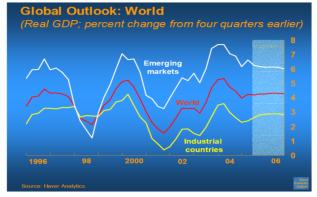


Figure 1: Global Outlook (Real GDP; percent change from four quarters earlier)

Source: Haver Analytics (Helbling, 2005)

Global trade has also recovered strongly since the downturn in 2001 and continues to be an important engine of growth, as reported in the International Monetary Fund (2005). It is currently expanding at something close to twice the rate of growth of world GDP as illustrated in Figure 2. Reductions in inflation in many countries have greatly improved the prospects for sustained growth. The improvements in performance and, in many cases, economic policies have been substantial and significant. Japan recorded stronger performance in 2005 than we have seen for some years. Among the industrial economies, the Euro area was almost alone in continuing to grow at a lackluster pace.

In emerging and transition economies, there have been widespread improvements in economic growth. We have seen rapid growth not just in emerging Asia—including China and India—but in the transition economies of Europe, including Russia, the Ukraine and the new members of the EU—where growth performance has, so far, been largely unaffected by sluggish Euro area growth. In some emerging markets, real progress has been made in increasing the resilience of economies to withstand external shocks.



Figure 2: Global Trade (SDR Terms; 3-Month Moving Average)

Source: Haver Analytics (Helbling, 2005)

The U.S. economy continues to be the primary engine of global growth. In the global context, however, it is the American current account deficit that gives greater cause for concern. But the US deficit is only one manifestation of the current global payments imbalance. As discussed in Krueger (2005), the persistently weak growth performance of the Euro area is another factor contributing to the US current account deficit. More rapid growth in Europe would ease pressure on the global imbalances. Europe's growth prospects depend crucially on structural reforms that would lead to more flexible and responsive economies.

A more buoyant Japan would also help ease global payments imbalances. After a year of rapid growth to the middle of 2005, the economy has slowed in recent quarters—a result, in part, of a correction in the IT sector. But economic activity should firm over the course of 2005 thanks to much improved fundamentals. Over the medium term, however, further structural reforms will be needed to boost growth prospects at a time of rapid demographic change.

Debt levels rose during the last recession as governments struggled to offset some of the effects of the downturn. A significant reduction in debt levels is essential if debt sustainability is to be achieved over the medium and longer term; and if governments are to have any room for maneuver with counter-cyclical policy and successfully to reduce vulnerability to outside shocks and changes in the economic cycle.

2. Global Financial Stability

The positive recent economic fundamentals have contributed to the financial stability of the global monetary system. We may also recall that the Bretton Woods system had proved to be remarkably durable, adaptable and successful. In the period up to 1971 the system of fixed but adjustable exchange rates established as part of the postwar settlement provided a stable framework that fostered growth. The Fund's ability to provide its member countries with temporary financial support during balance of payments crises proved critical, on more than one occasion, to the maintenance of stability in the system as a whole.

Nevertheless, the Asian crisis, and others in Russia, Argentina, Brazil and Turkey, taught us some valuable lessons. With hindsight, of course, it should have been more evident to many of those involved—including the IMF—that trouble was brewing for some of those countries. The proximate cause of the crisis in Asia was the sudden sharp reversal of capital flows away from the region. Net inflows to the Asian crisis countries were roughly 6.3 percent of their GDP in 1995, and 5.8 percent in 1996. In 1997, net outflows were 2 percent of GDP, a figure that rose to 5.2 percent the following year.

Asia's experience in the late 1990s reminded us of things we already knew, but whose importance we perhaps underestimated. Fixed exchange rates and the poor regulation of the banking and financial sector in many countries had enabled banks to build up liabilities in one currency and assets in another. Government assurances that exchange rate pegs would be sustained left currency mismatches

unrecognized. Devaluation then left financial institutions facing massive losses, or insolvency. Once the cushion of foreign capital was removed, the weaknesses of domestic banking systems were revealed—as was the impact on economic performance. The Asian crisis also underlined that the benefits of short-term exchange rate stability are greatly outweighed by the risks that pegged or tightly managed exchange rate regimes bring—not least from the danger of currency mismatches in the corporate and the banking sectors. Fixed exchange rates can result in very large—and sudden—changes in the rate, thus creating great volatility and lost output over the longer term. The move to flexible exchange rates in most countries has reduced vulnerabilities. An overview of exchange rates is given in Fischer (2001) and a discussion of global instabilities can be found in Malliaris (2002) and Salvatore (2005).

To achieve a strong, well-regulated financial sector means addressing issues such as non-performing loans, capital adequacy, and effective supervision. Financial institutions need the appropriate incentives to develop the skills required to assess and manage credit risk and returns. Effective bankruptcy laws—that strike the right balance between creditors' and debtors' rights—need to be in place.

3. Role of IMF

The growth of integration of the economies has been accompanied by a number of challenges and issues. To resolve these issues and to harness globalization for the betterment of the entire world, an intervention of an International organization like IMF is essential.

A key part of the IMF's mandate today is the promotion and maintenance of monetary and financial stability, both in individual countries and at the international level. Stability is the foundation for sustained economic growth, and crisis prevention and resolution.

The biggest challenge to world stability is the global imbalance issue. With the world's richest country, U.S. with its huge deficits continuing to consume the accumulating surpluses in the emerging economies like China, the global imbalance will soon become unsustainable.

Delays in addressing the global imbalance issue through adjustments in domestic policies or any serious doubts about the willingness of central banks to accumulate dollars could spark strong incentives for investors, private and public to reduce future dollar purchases. This could trigger decline of the dollar and an increase in US interest rates that will have a massive negative impact on the rest of the world.

Unfortunately, neither the developed countries under the U.S. leadership nor the emerging economies are ready to change their domestic policies. The political costs incurred in the process along with the absence of immediate benefits prevent most economies from undertaking measures to tackle the issue. Moreover, such changes can promote the growth of other economies.

Multilateral dialogue and actions are essential to solve such issues and IMF can play a very important role in encouraging the same. It can persuade economies to take necessary combined actions by pointing out its benefits on the

economies involved. The IMF can also request its members to collectively persuade an economy into taking actions on occasions when IMF itself fails to do so

However, the IMF itself has to evolve into a more transparent and impartial organization to regain the trust of the emerging and developing economies. The uncertainty in the amount of Fund support and the fear of the imposition of severe conditions in times of crisis has led to attempts by these countries to refrain from depending on the IMF. This in turn has led to the accumulation of large reserves.

To reduce the current surpluses in the emerging countries, the IMF has to change its lending policy to one based on ex-ante conditionality where the countries know in advance the amount they can expect from the Fund during a crisis.

Another area of priority is the governance of the IMF. An increased representation of the emerging and developing economies together with a transparent management election process will help reassure that the measures undertaken by the Fund are in their best interests.

Clearly, these changes in the IMF are inevitable for it to retain its prominence in the world and further take up the role of creating a more stable global financial market. This is discussed in detail in Rajan (2006).

4. The U.S. Trade Deficit

In recent years, exports have grown faster than imports in China, resulting in an overall trade surplus. In other countries, including the United States, imports have grown faster than exports, resulting in an overall trade deficit. A large and continual trade deficit may also be troublesome to the extent that it increases U.S. reliance on international borrowing—the sale abroad of U.S. bonds and other securities. Also, China has emerged as a major source of U.S. imports, leading to a widespread view that the record overall U.S. trade deficits of recent years are "made in china." In reality, China is the major player but other player also do affect U.S. traded deficit.

The U.S. merchandise trade deficit with China alone accounted for about \$162 billion in 2004 or nearly one-quarter of the total U.S. trade deficit, up from a minor share in the mid-1980s. Figure 3 highlights the growing contribution of China to the overall deficit and the declining contribution of Japan over the same period. Coming at the same time as record overall trade deficits, the rapidly growing bilateral trade deficit with China has prompted calls for new barriers to U.S.

China currently has the largest bilateral trade surplus with the United States; relative to the size of China's economy, the surplus is even larger. Analysts estimate that the U.S. current account deficit, now 6 percent of GDP, would need to drop to 2–3 percent of GDP in order to achieve long-run sustainability (Kouparitsas, 2005; Roubini and Setser, 2004). Thus, without reductions in other bilateral imbalances, sustainability could not be achieved even if the U.S.–China trade deficit dropped to zero.

Chinese exports of textile and apparel products to the United States have continued to grow as a share of total U.S. imports at the industry level and as a share of U.S. domestic consumption.

Despite the recent emphasis on textiles and apparel, where U.S. imports from China soared in early 2005 following the elimination of U.S. quotas on these products, Chinese competition in other manufacturing industries has been growing even more rapidly.

As with textiles and apparel, to a large extent these Chinese gains have come at the cost of traditional exporters. The depreciation of the U.S. dollar relative to the euro and the Canadian dollar has reinforced this trend by redirecting U.S. import demand toward China, Japan, and other East Asian exporters.

Now, Chinese producers have proved to be experts at producing increasingly sophisticated products. Chinese auto parts are already entering the U.S. market in substantial quantities; imports of Chinese-built vehicles are expected as early as 2007.

Restrictions on imports from China impose higher costs on U.S. consumers, who now have to pay more for products. With the United States and other trading partners (for example, the European Union and Brazil) imposing or threatening to impose safeguards on Chinese apparel imports, in May 2005 the Chinese government responded by proposing export restrictions on the same products, thus "voluntarily" limiting their exports.

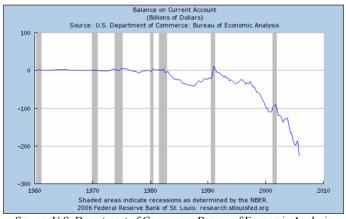


Figure 3: U.S. Balance on Current Account (Billions of Dollars)

Source: U.S. Department of Commerce: Bureau of Economic Analysis

The current state of global imbalance is unsustainable and calls for immediate actions to prevent the fall of the dollar, which could drastically affect not only the U.S., but the rest of the world as well. Moreover, the surge in oil prices and threats of terrorism and the ongoing war with Iraq are major challenges faced by the U.S. and the world as it struggles to fiscally reestablish itself.

Large drops in national savings with consequent drops in federal budget balance in recent years accounts for the increasing current account trade deficits. Tax-cuts that have been introduced by the U.S. government in order to counter the problem have led to a significant increase in private consumption and decrease in savings. This together with the rapidly increasing government expenditures mainly for defense purposes has led to record fiscal deficit.

The effects of fiscal policy on the current account balance remains unclear. Studies suggest that fiscal policy changes are a poor and costly (both internally and globally) way of reducing the current account deficits. The effects of an increase in government savings on the current account balance during a year of high productivity could be more than offset by increased consumption and drop of savings. Moreover, an inappropriate monetary policy can nullify the effects of a modified fiscal policy (Barth and Patricia, 2006).

Although there is an uncertainty regarding the appropriate fiscal policy that the government should adopt, the current fiscal state is unanimously considered to be a cause of concern (Barth and Patricia, 2006). Analysts predict that rigorous changes in fiscal policy by way of decreased government expenditure will indeed decrease the current account balance. But this will come at very high economic costs not only within the U.S. but in other parts of the world as well. Therefore, in the absence of policy changes to boost consumption in the emerging economies, the fiscal tightening will make little or no difference in bringing down the current account balance.

With the baby boomers approaching retirement, the government expenditure on their social security and medical care will further deteriorate the financial situation. The refusal of the White house to increase the taxes in the face of soaring costs in various sectors, has made the government's aim of cutting the budget deficit by half by 2009 an unrealistic dream.

The long-term interest rates were kept from increasing this far mainly due to the easy monetary policy, lack of complete understanding of the fiscal stance in U.S. by foreign investors and continuing support from foreign central banks. But if Japan and Europe continue to grow as expected and the foreign investors begin to loose confidence in the heavily indebted U.S., the era of American supremacy may soon come to an end with the possibility of the euro replacing the dollar as the international currency.

4. Impact of Euro

Following the introduction of the euro in January 1999, there has been an increase in co-movements in financial asset returns as a result of greater integration and economic interdependence between the economies of the European Union. According to the assessments of Cappiello, Hordahl, Kadareja and Manganelli, (2006), although the increase in co-movements has been more pronounced in the bond market, there has been reasonable increase in the equity market as well.

While most of the increase in co-movements in the equity market is due to the large member states of the euro area, both the large and small member economies in the euro area encountered significant increase in integration in the bond market. Moreover, the presence of "cross Atlantic factors" is more pronounced in the equity market; that is there has been an increase in comovements between the larger euro area economies and countries like the U.K. and U.S. after the introduction of the single currency. However, the degree of integration with other non-euro countries like Japan continues to be low in both the equity and bond markets.

With regard to the impact of the introduction of euro on asset pricing, a change in the term structure risk premia was observed. This change is a result of changes in the dynamic behavior of macroeconomic variables after the introduction of the euro and the changes in the market-price-of-risk factors. While, the average premia has remained the same as before, there has been a reduction in its variability because of smaller macroeconomic shocks after the launch of euro. However, the macroeconomic factors that best explained the variability of the premia continue to be important even after the introduction of the euro.



Figure 4: U.S. / Euro Foreign Exchange Rate (U.S. Dollars to One Euro)

Source: Board of Governors of the Federal Reserve System

6. The EU and the Role of Euro

The European Union has recently expanded from 15 to 25 members. Bulgaria and Romania are expected to join in 2007. Those joined on May 2004 were: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania. Malta. Poland, Slovakia and Slovenia. Croatia and Turkey have recently started negotiations. In December 2005, the European Council decided to grant candidate country status also to the Former Yugoslav Republic of Macedonia, with whom accession negotiations have not started yet. In order to join the Union, they need to fulfill the economic and political conditions known as the 'Copenhagen criteria', according to which a prospective member must:

- a. be a stable democracy, respecting human rights, the rule of law, and the protection of minorities.
- b. have a functioning market economy; adopt the common rules, standards and policies that make up the body of EU law.

The euro is the official currency of the EU. It was introduced to world financial markets in 1999 and launched as a currency in 2002. The euro is strongly advancing both economic and political integration between the participating EU member states. All EU member states are eligible to join if they comply with certain monetary requirements. The euro is managed and administered by the European Central Bank.

Outside Europe, the euro has been a success as well. Economists have studied the data from the euro's first few years in operation and found more of an increase in the supply of euro denominated assets outside of Europe than within the EMU.

About half of euro land trade with non-euro area residents is invoiced in the new currency. The euro's share in international debt securities has risen to above 30 percent. The euro's share of foreign exchange transactions reached one quarter in Continuous Linked Settlement data. Including forwards and swaps the dollar was involved in 89 percent of all transactions and the euro in 37 percent. In short the euro is the second international currency, after the dollar.

A high euro scenario would have many European countries joining EMU by the end of this decade. Most eager to join are the ten countries that joined EU in May 2004. Possibly Denmark, Sweden and U.K. will join the euro. In this case euro land exceeds the U.S. in income and trade. The key question is whether U.K. joins, because it would bring with it the London financial markets. By mid decade it did not look likely that Britain would join in the coming ten years. Real growth has been slower in Europe than United States for some years due to lower population growth. US monetary policy in the first part of the current decade was looser than ECB monetary policy.

All of the above developments are challenging the future leadership of the U.S. dollar as a global currency. In what follows we evaluate the intensity of the competition between the euro and the dollar.

7. Economic Outlook for the Euro Area

Papademos (2006) points out that recent surveys on the economic situation in the euro area indicate a growth in economic activity, which is expected to continue further with the increase in domestic and global demand.

The World economy, which continues to grow at a healthy pace, will have a positive impact on the euro area economy, as it will contribute to its exports as well as to sustaining strong investment activity.

With regard to the domestic developments, the private consumption growth is expected to gradually pick up with the increase in consumer confidence.

Moreover, recent structural reforms in the euro area are expected to improve the national labor market performance in the coming years.

However, there exist two external risks to this outlook, namely global imbalances and the high oil prices. The latter poses a threat to the consumer prices, although over the medium-term, no upward pressures on inflation are expected. Hence, ECB through its monetary policy has to continue to keep inflation under check in the long run.

8. Euro Area and China

There has been a tremendous increase in euro area's imports from China with the latter's growth into a major trading nation as a result of increase in globalization. Along with global trading, there has been an increase in capital flows and foreign direct investment. All this has led to a growing interdependence between the euro area and China.

Despite the many advantages in terms of lower costs for consumers and firms, euro area is faced with challenges due to the outsourcing of manufacturing activities and the resulting effects on the labour market. Besides, China's share of euro area imports has seen a downward trend in the last ten years. These challenges are being met with through the introduction of labour policies to make euro area economies more flexible, innovative and competitive. For instance, "Lisbon strategy", a set of policy initiatives, which emphasize on education and research for the long-term growth and development of the euro area, have already been put forward (Papademos, 2006).

The current global imbalance is the biggest challenge faced by the global economy. In order to find a solution to this problem, the euro area along with the rest of the deficit countries should introduce reforms aimed at increasing productivity through competition and innovation. On the contrary, China along with all the surplus countries has to adopt measures like exchange rate flexibility, interest rate adjustments, higher returns on financial investments and banking loan requirements, which will encourage investments on financial assets. Together this will help solve the global as well as local economic imbalances (Papademos, 2006).

9. Possible Future Scenarios

Table 1 gives an account of the changes in the shares of the various major currencies in the total foreign currency reserves held over the years.

The dollar, which replaced the Pound sterling after the Second World War to become the hegemonic currency, continues to grow with a share of about 63.5% of the world's currency reserves. The substantial growth shown by the Japanese yen came to an end with the recession of the late 1990s. The deutsche mark was doing exceptionally well until it was replaced by the euro. Immediately after its introduction in 1999, the euro became the second major global currency with around 19.3 percent of the world's currency reserves held in euro by 2002.

Table 1: Reserve Currency Holdings (Original IMF data)

| Share of National Currencies in Total Identified Official Holdings of Foreign Exchange, End of Year (in percent) | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|--|
| | 1965 | 1973 | 1977 | 1982 | 1987 | 1992 | 1997 | 2002 | |
| All countries | | | | | | | | | |
| U.S. dollar | 56.1 | 64.5 | 76.2 | 57.9 | 53.9 | 48.9 | 59.1 | 63.5 | |
| Japanese yen | 0.0 | 0.1 | 1.2 | 4.1 | 6.8 | 7.4 | 5.1 | 5.2 | |
| Pound sterling | 20.0 | 4.2 | 1.5 | 1.8 | 1.9 | 2.6 | 3.3 | 4.4 | |
| Swiss franc | 0.0 | 1.1 | 0.8 | 2.3 | 1.7 | 0.8 | 0.5 | 0.6 | |
| Euro | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.3 | |
| Deutsche mark | 0.1 | 5.5 | 6.4 | 11.6 | 13.8 | 14.0 | 13.7 | 0.0 | |
| French franc | 0.9 | 0.7 | 1.0 | 1.0 | 0.9 | 2.6 | 1.5 | 0.0 | |
| Netherlands guilder | 0.0 | 0.5 | 0.4 | 1.0 | 1.2 | 0.7 | 0.5 | 0.0 | |
| ECUs | 0.0 | 0.0 | 0.0 | 13.8 | 13.6 | 9.7 | 5.0 | 0.0 | |
| Unspecified currencies | 22.9 | 23.6 | 12.3 | 6.5 | 6.4 | 13.3 | 11.3 | 7.1 | |

Table 2: EU, U.S. and Japan

| Key Statistics for 2004 | | | | | | | |
|----------------------------------|--------------|-----------|-------|-------|--|--|--|
| Characteristics | Unit | Euro Area | U.S. | Japan | | | |
| Population | Millions | 309.7 | 294.0 | 127.6 | | | |
| Gross GDP | \$ trillions | 9.07 | 12.24 | 3.96 | | | |
| GDP (share of world GDP) | % | 15.3 | 20.9 | 6.9 | | | |
| GDP per capita | \$ | 29.28 | 41.64 | 31.08 | | | |
| Unemployment Rate | % | 8.8 | 5.5 | 4.7 | | | |
| Government Surplus(+)/deficit(-) | % of GDP | -2.7 | -4.4 | -7.0 | | | |
| Gross debt | % of GDP | 70.6 | 48.7 | 149.2 | | | |
| Exports of Goods and Services | % of GDP | 19.5 | 9.8 | 13.6 | | | |
| Imports of Goods and Services | % of GDP | 17.8 | 15.0 | 11.6 | | | |
| Current account balance | % of GDP | 0.6 | -5.7 | 3.7 | | | |

Source: www.worldbank.com

Table 3: Key Potential Economic Partners (2004)

| | | Total | | | | | |
|------------------------|-------------------|------------|-------------|-------------|-----------------------|--|--|
| GDP in Exports Imports | | | | | | | |
| | Population | billion of | <u>as %</u> | <u>in %</u> | Surplus(+)/Deficits(- | | |
| Countries | in millions | <u>USD</u> | GDP | <u>GDP</u> |) as %GDP | | |
| Mexico | 103.8 | 676.5 | 30.1 | 31.9 | -1.8 | | |
| Canada | 32 | 978 | 34.4 | 30.4 | 4 | | |
| England(U.K.) | 59.9 | 2124.4 | 24.7 | 28 | -3.3 | | |

Source: www.worldbank.com

As seen from Table 1, the three major global reserve currencies are the U.S. dollar, euro and the Japanese yen. In addition, all the key characteristics

mentioned in Table 2 are quite favorable for these three economies. The unsustainable growing deficits of the U.S. on one hand and the recovery of the Japanese and euro area economies on the other, are posing a threat to the future prospects of the dollar as the international currency. With the recession in Japan hindering the growth of the yen, the real competition has now been reduced to one between the other two currencies namely the dollar and the euro.

So, how will the world economy take shape in the future? Three possible scenarios are discussed below.

Scenario 1: If the current trend of the dollar's decline and euro's appreciation continues, by 2020 the euro will equal the dollar and will further overtake it as the international currency. This is illustrated in Figure 5.

1.0 0.8 0.6 0.4 0.2 0.0 75 80 85 90 95 00 05 10 15 2

Figure 5: Disciplined Decline in the Dollar and Appreciation of the Euro at 10 percent annual rate

Source: Frankel and Chinn (2005) and Modified by the Authors

With the growth of the world economy, the existence of a single successful hegemonic currency without eventually leading to global instability is highly unlikely. Scenarios 2 and 3 discuss the consequences of more than one nation adopting a currency.

Scenario 2: If the U.S. incorporates U.K. and perhaps NAFTA, (Canada and Mexico) and/or Australia and New Zealand, then the rate of decline of the dollar may slow down or may even reverse. The red dotted curve in Figure 6 illustrates this.

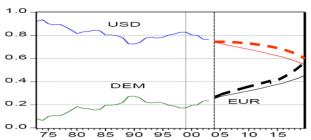


Figure 6: Euro and Partners versus U.S. and Partners (various scenarios)

Source: Frankel and Chinn (2005) and Modified by the Authors

Scenario 3: On the other hand, if U.K. and perhaps the 10 new members of the EU adopt the euro as their currency, there could be an even faster overtaking of the dollar by the euro as compared to Scenario 1. (Black dotted curve in Figure 7)

9. Summary

This paper argues that global economic development has progressed at a rapid rate during the last few years with the U.S. economy acting as the engine of growth since its brief recession in 2002. In contrast to global trade stability and growth, currency markets have experienced substantial volatility. The EU has chosen to overcome such volatility by establishing the European Monetary Union and introducing a common currency in 1999. The euro has been thus far a great monetary success and has continued and actually expanded the international significance of the German mark. The currently unsustainable balance of payments deficits in the U.S. have diminished the strength of the dollar and analysts are concerned about the future leadership of the dollar. We argue in this paper that at least three possible scenarios may develop. First, without any new membership in the EMU one may expect a disciplined decline of the dollar and a further strengthening of the euro. A second scenario involves the expansion of the U.S. to include the U.K. and also the NAFTA in a new Pan American Monetary Union. Such a development may stop the decline of the dollar or may actually reverse its current course and lead to its strengthening. The third scenario envisions the U.K. actually joining the EMU, which will result in a further increase in importance of the euro as a global currency. In addition, if the 10 new member states of the E.U. satisfy the convergence criteria and join, the euro could be strengthened further.

10. References

1) Barth, Marvin and Patricia Pollard, (2006), "The Limits of Fiscal Policy in Current Account Adjustment", Occasional Paper No 2, Department of the Treasury, Office of International Affairs, April.

- 2) Cappiello Lorenzo, Hordahl Peter, Arjan Kadareja and Manganelli Simone, (2006), "The Impact of the Euro on Financial Markets", Working Paper Series, March.
- 3) Fischer, S. (2001), "Is the Bipolar View Correct?" *Journal of Economic Perspectives*, 15, 3-24.
- 4) Frankel J., Shang-Jin Wei, (2004), Managing Macroeconomic Crises: Policy Lessons Draft Chapter for Managing Volatility and Crises a Practitioner's Guide, March.
- 5) Frankel J., Chinn M. (2005), "Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency?" NBER Conference, Newport, June 1-2.
- 6) Frankel J., (2006), "The Economic Outlook and the Twin Deficits", Boston Economic Club, May 24.
- 7) Helbling, Thomas, (2005), Project Link Meeting, Research Department, International Monetary Fund, May 16.
- 8) International Monetary Fund (2005), "Global Financial Stability Report Market Developments and Issues", April.
- 9) Kouparitsas, Michael, (2005), "Is the U.S. Current Account Sustainable?" *Chicago Fed Letter, Federal Reserve Bank of Chicago*, No. 215, June.
- 10) Krueger, O.A. (2005), "How Stable is the Global Economy?" Address at the Stanford Institute for Economic Policy Research: Economic Summit. Stanford, California, February 11.
- 11) Malliaris, A.G. (2002), "Global Monetary Instability: The Role of IMF, the EU and NAFTA", *The North American Journal of Economics and Finance* 13, 72-92.
- 12) Papademos, Lucas, (2006), "The Euro Area Economy and Emerging Asia Current Issues and Policy Challenges", Speech at the Shanghai Head Office of People's Bank of China, Shanghai, February.
- 13) Rajan, Raghuram, G. (2006), "IMF in a Changing World, International Monetary Fund", Key Note Address at the International Conference on Global Asset Allocation, Arison School of Business in Israel.
- 14) Roubini, and Setser, (2004), "The U.S. as a Net Debtor: The Sustainability of the U.S. External Imbalances", New York University, Stern School of Business, Manuscript.
- 15) Salvatore, Dominick, (2005), "Currency Misalignments and Trade Asymmetries among Major Economic Areas", *The Journal of Economic Asymmetries*, June, 2, 1-24.