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CONFERENCE PROCEEDINGS

Doing Business with the Euro

Risks and Opportunities

Keith Crane, Nathan Chandler

Prepared for the
Delegation of the European Commission to the United States

RAND NATIONAL SECURITY RESEARCH DIVISION

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PREFACE

On May 18, 2005, the RAND Corporation and the Delegation of the European Commission to the United States held a conference in Pittsburgh, Pennsylvania, on “Doing Business with the Euro.” The purpose of the event was to promote discussion between senior policymakers and corporate executives on the young currency’s expanding role in the global economy. The conference focused on the strategic and operational ways in which several leading U.S. corporations have successfully adjusted their accounting, financial management, and European operations to adapt to the post-euro economy, and to counsel corporations and financial institutions in the Pittsburgh region and beyond on ways to boost exports and profits by taking advantage of the emergence of the euro.

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I. INTRODUCTION

On May 18, 2005, the RAND Corporation, with the support of the Delegation of the European Commission to the United States, organized a conference in Pittsburgh, Pennsylvania, on "Doing Business with the Euro: Risks and Opportunities." The conference brought together over 90 executives of major corporations, senior policymakers, and academic specialists from throughout the United States and Europe. Its purpose was to better inform leaders of the American business and financial communities about the economic effects and implications of the euro for U.S. business operations, and to share the experiences of U.S. and European chief executive officers (CEOs) in reorganizing their operations in response to the introduction of the new currency in 1999. The day's discussions were highlighted by a keynote address by Paul H. O'Neill, former Secretary of the United States Treasury and former CEO of Alcoa. This report summarizes the discussions of the conference.

James Thomson, President and CEO of RAND, and Hervé Carré, Minister for Economic, Financial and Development Affairs at the Delegation of the European Commission to the United States, introduced the conference. In his opening statement, Dr. Thomson noted that the timing of conferences often seems to coincide, quite unintentionally, with historical moments. This conference took place at a critical juncture in the European Union's (EU's) history, falling just days before the referenda in France and the Netherlands on the European Constitution. On the eve of this event, the conference participants reflected often on the EU's broader purpose and nature. The notion of the EU as more of a process than an institution—and the euro as the most tangible symbol of progression towards closer and deeper European integration—was a recurring theme of the day.

THE EVOLUTION OF THE EURO

For more than a decade in the run-up to the adoption of the single European currency, many economists in the United States and in Europe doubted that Europe would adopt a single currency, or, if so, that no more than a handful of EU member states would participate in monetary union. As with the introduction of the Single Market at the end of 1992, an initiative sometimes feared as creating a potential "fortress Europe," some Americans were wary of the single currency, fearing it would make Europe more of a competitor to the United States.

The introduction of the euro has indeed been a historic event. This achievement marked the full monetary integration of 12 of the then 15, now 25, member states of the European Union, and the elimination of the final barrier to fully achieving the long-envisioned, single European market. Since its advent, the single currency has reaped real economic rewards for all of the economies of the countries that have adopted it.

But if the underlying rationale for Economic and Monetary Union (EMU) was predominantly economic, the deeper rationale for the initiative was profoundly political, aimed at involving all European citizens in the process of European integration. As former Commission President Jacques Delors once pointed out, the introduction of the euro has created "the perception of an emerging European identity." Without question, the euro is the most visible and tangible illustration of the European Union and is a decisive contribution to rendering the unification process irreversible. Since the introduction of euro notes and coins on January 1, 2002, the single currency has become the cornerstone of more than 300 million citizens' daily activities, and has served as the yard stick by which the public measures the progress of the last half-century toward integration.

Slightly more than a year ago, the European Union completed the largest enlargement in its history. This accession of 10 new states raised the total number of members from 15 to 25 and increased the EU population by 20 percent (to over 450 million people). Significantly, however, the EU's total GDP rose only 5 percent with the addition of these 10 nations. Though the new member states have enjoyed rapid economic growth in recent years, their great economic potential has yet to be exploited fully. The enlargement process offers unprecedented future economic opportunities for both old and new members, as well as business interests in the United States and elsewhere abroad. This most recent enlargement, along with others to come, will promote competition and will favor a more efficient allocation of resources within the European Single Market. This reality has been well understood by both European and American investors, who have significantly increased their presence in these countries in anticipation of enlargement.

By joining the European Union, the acceding countries have also become members of Economic and Monetary Union. Though they have all committed to the eventual adoption of the euro, before doing so, they must meet a number of criteria, as laid out in the Maastricht Treaty. The new members will continue on a path of economic restructuring and economic and policy convergence as part of the process of getting in shape for the euro—a process that is guided and encouraged by the Commission and the European Central Bank. By the end of the decade, a number of these new Member States will have successfully replaced their national currencies with the euro.

In the six years the euro has been in place, it has established itself as a key currency on the international scene and as an alternative to the dollar. The share of the euro in global foreign exchange reserves, in foreign debt securities, and in international cross-border liabilities of international banks, has risen rapidly. Over 50 countries now operate managed exchange-rate arrangements that include the euro as a reference currency, either alone or with other reserve currencies. These figures reflect the increasing attractiveness of the euro as an international currency.

The introduction of the single currency has also had a revolutionary effect on the European financial sector, as a catalyst for European financial integration and restructuring, and for the expansion of European financial markets. According to one Commission study, an integrated European capital market could, in the long run, raise the level of gross domestic product (GDP) in the EU by over 1 percent—a boost these economies could greatly use. For these reasons, the EU is steadfastly committed to the completion of a single market in financial services.

The impact of the euro is being felt deeply and widely, within the Euro area and the EU, but outside Europe's borders as well. The growing international role of the euro, including its profound effect on the business and financial sector, has provoked strong analytic and policy interest on both sides of the Atlantic. To contribute to the analysis of these issues, the RAND Corporation and the Delegation of the European Commission to the United States held this conference on the risks, challenges, and opportunities of doing business with the euro in both the near and more distant future.

II. THE EURO, THE YEN, THE RENMINBI, AND THE DOLLAR: PORTFOLIO SHIFTS AND CAPITAL ACCOUNT BALANCES

The first session of the May 18th conference explored the effects of the introduction of the euro on global portfolio holdings and financing of capital account balances, with a focus on the effects of potential portfolio shifts on exchange rates and the implications of changes in asset allocation and exchange rates for North American, European, and Asian businesses and investors. The first session was chaired by Professor Alberta Sbragia, Director of the European Union Center at the University of Pittsburgh, and included presentations by Dr. J. Onno de Beaufort Wijnholds, Permanent Representative of the European Central Bank in Washington, D.C., and Observer at the International Monetary Fund; Dr. Norbert Walter, Chief Economist of the Deutsche Bank Group; and Dr. William Overholt, Pacific Policy Chair in Asia Policy Research at RAND. Panelists were asked to comment on financial and macroeconomic shifts stemming from the introduction of the euro and economic benefits to both U.S. and European consumers and businesses.

THE INTERNATIONAL ROLE OF THE EURO

Dr. J. Onno de Beaufort Wijnholds, the Permanent Representative of the European Central Bank in Washington, D.C., opened the session by explicating the euro's growing international role. Over the course of the six years since its introduction, the euro has established itself as the second most important reserve currency and an alternative to the dollar in some financial markets. Despite its recent birth, the euro is already extensively used as a unit of account and as a store of value. In international trade, in foreign exchange markets, and in capital markets, the euro is now the second most widely used currency internationally, and in several areas, its role is increasing steadily. The share of the euro in global foreign exchange reserves increased from less than 15 percent in 1999 to almost 20 percent in 2003—still substantially less than the dollar's share, but growing. In international financial markets, the euro has firmly established its status as the second international currency. In mid-2003, it accounted for more than 30 percent of debt securities (bonds, notes, and money market instruments) issued in a currency different from that of the borrower's country (versus 22 percent in 1999), and accounted for about one-quarter of international cross-border liabilities of international banks (outstanding cross-border liabilities of credit institutions and their domestic liabilities in foreign currencies).

The euro is not yet challenging the dollar. The dollar is today, and will remain tomorrow, the world's most important currency. Much of the increase in the role of the euro is driven by regional factors. The increased use of the euro has been greatest among residents of countries neighboring the Euro area or with historic ties to European nations. This is also true for the outstanding stock of euro-denominated international debt securities, particularly bonds. Since its introduction, the euro's share of international debt securities outstanding, excluding home issuances, has risen significantly, from approximately 20 percent of the international stock in 1999 to over 30 percent in 2004. Over the same period, the Japanese yen has lost significant ground; in 2004, it constituted only 9.3 percent of international debt securities, a decline of nearly 50 percent. The share of the U.S. dollar has also fallen slightly over this five-year period, though it continues to account for the greatest share of international debt securities—more than 44 percent worldwide in 2004.

Again, it is the European countries nearest the Euro area that account for the largest share of issuances of these securities. Broken down regionally, during this period there was a particularly strong increase in issuances by the new Member States of the European Union—countries such as Hungary, the Czech Republic, and Poland. Interestingly, the United States also increased its share of euro-denominated securities quite significantly during this time, as did the group of Member States who have not adopted the euro—Sweden, Denmark, and the United Kingdom—referred to as the "Pre-ins" (Figure 1).

Though the currently available statistical evidence is limited, all signals indicate that the introduction of the euro has positively affected the euro-area's trade. Invoicing in euros has increased significantly. In Greece, for example, the euro's share in extra-Euro area goods exports grew by almost 25 percent from 2001 to 2003.

The euro has become the second most-widely traded currency in foreign exchange markets. In markets utilizing Continuous Linked Settlement (CLS), it now accounts for around 44 percent of daily settlements. (Note: The sum of currency percentage shares adds to 200 percent, as both currencies utilized in a transaction are counted separately.) In 2004, the euro has experienced a slight decline in its share, relative to the previous few years, a trend related to valuation effects and to the increased number of currencies settled in CLS. The picture for the dollar over this same period has been stable, with settlement remaining steadily near 100 percent, i.e., the dollar is the counterpart currency in virtually all trades. The Japanese yen and the pound sterling trail the euro by some distance as the third and fourth most-widely settled currencies in the foreign exchange market, respectively; in 2004, the euro's currency percentage share was roughly double that of either the yen or pound sterling.

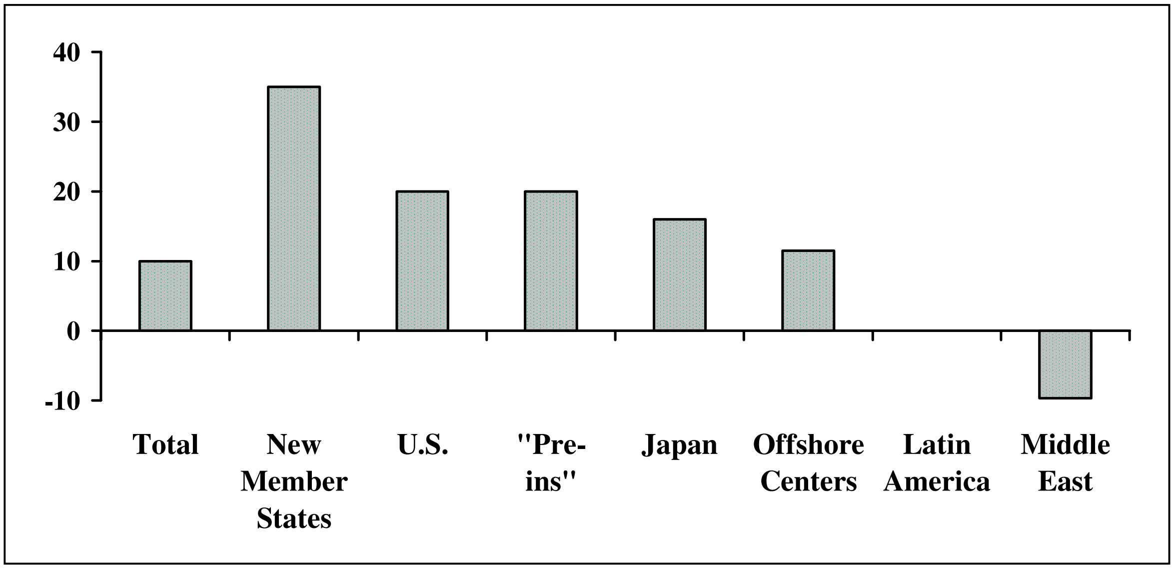

Figure 1: Change in the Share of Euro-Denominated Securities in the Stock of International Issues—1994–2004 (Percent Points), Source: European Central Bank Calculations.

The euro has also enjoyed a rising role in official use. Roughly 50 countries currently use the euro as an anchor or reference currency. Some of these countries are quite small, like Monaco and Andorra. Here again, a strong geographical or institutional underpinning lies behind the use of the euro in these third countries' exchange rate regimes. Countries close to the Euro area, including most non-Euro area EU member states, and countries that have special institutional and financial arrangements with the EU, like the candidate countries, the potential candidate countries, and the West African countries of the *Communauté française d'Afrique* (CFA) franc zone, make up the majority of the nations using the euro as an anchor or reference currency. There is still substantial room for growth in this area. Further expansion will depend on decisions to be taken by a number of European governments, such as the United Kingdom, Russia, and other former Soviet republics.

Despite these signs of growth, the euro's share in global foreign exchange reserves is still much smaller than that of the dollar, according to the latest data available from the International Monetary Fund (IMF). Some economists believe that a number of economically important countries, especially in Asia, will be shifting reserves into the euro. In any event, if reserves of Asian countries continue to grow rapidly, the value of euro holdings will rise sharply—even if the euro's share remains around its current share of 20 percent of Asian reserves.

GLOBAL CURRENT ACCOUNT IMBALANCES

The implications of global current account imbalances became one of the central debates of the conference. The United States is expected to run a current account deficit of roughly $700 billion, 6 percent of GDP in 2005. Japan, on the other hand, will once again run the world's largest current account surplus followed by: China, whose share of global exports is continuing to rise; the major oil exporting nations; and the rest of East Asia, including Hong Kong, Taiwan, Korea, Singapore, Thailand, and Malaysia. In contrast, the current account for the Euro area is expected to be practically in balance; in 2005, the area is expected to run a modest surplus of about 0.5 percent of GDP. Remarkably, the United States' negative balance this year will be greater than the combined surpluses of Japan, China, the rest of East Asia, the Euro area, and the world's oil exporters.

Conference participants concurred that an eventual resolution of growing global imbalances will involve all of the major players. The optimal adjustment is perhaps that to which one panelist jokingly referred as the "mantra" of the IMF: "The broad strategy to address imbalances—medium-term fiscal consolidation in the United States; steps toward greater exchange rate flexibility … in emerging Asia; and continued structural reforms to … boost growth in Europe and Japan—is generally agreed."

However, the same participant was quick to introduce a few additional observations that reflect the political realities of the matter. He said, structural reform in Europe—primarily greater flexibility in labor markets and in product markets—is unlikely to contribute to reducing global imbalances. Structural reform in Europe is needed to boost Europe's growth potential. But should structural reforms be achieved, and should they lead to better export performance, global imbalances might be exacerbated rather than moderated because the initial effect of structural reform is often to depress consumption. The successful implementation of the mantra will thus primarily be the burden of the United States through a reduction of its current account and budget deficits and of Asia through a reduction in current account surpluses through faster growth in consumption and investment in Japan and the appreciation of the Chinese renminbi.

In the view of another panelist, the effects of exchange rate corrections are not equally welcome on both sides of the macroeconomic trench. While the United States has a clear interest in boosting exports and reducing its current account deficit, the macroeconomic interest on the other side of the equation is anything but unquestionable. The same panelist noted that it is not clear that the renminbi is overvalued. He queried whether it is fair to press hard on China to revalue the renminbi if China's inflation rate is barely 3 percent and if the Chinese government needs to generate 50 million new jobs per year. He speculated that China might very well avoid revaluing the renminbi for years to come. Invoking the powers of arithmetic, another participant forecast even greater asymmetries in future current account balances. He noted that U.S. foreign liabilities are on course to rise by at least $2 trillion during the second term of the Bush administration. He calculated that the additional interest payments paid by the United States to foreign bondholders would increase by $100 billion per year. Thus, the United States' current account will either increase annually by this $100 billion, or the United States will need to reduce its trade balance by the same amount—simply for the current account deficit to remain at current levels.

What, then, might realistically reduce global current account imbalances? One panelist called on the United States to continue to raise interest rates and reduce fiscal imbalances by imposing consumption taxes ranging from a value-added tax, excise taxes on refined oil products, or possibly an environmental tax, like a carbon tax. He argued that if passed, such measures would contribute to creating an environment for more sustainable global growth, reduce U.S. energy consumption and energy imports, contribute to limiting global warming, and would partially correct the United States' current account deficit.

Another panelist estimated that among the G-3, the country most interested in true international cooperation is Japan. Europe at this juncture, with all its domestic problems, is as inward looking as is the United States. Because of the lack of interest in global economic policy coordination by the G-3, movement towards smaller imbalances will be driven by market forces rather than by discretionary policy actions. Market forces will eventually reduce the U.S. current account deficit through a combination of higher U.S. interest rates, exchange rates adjustments, and slower U.S. growth.

OUTLOOK FOR THE INTERNATIONAL ROLE OF THE EURO

Greater international use of any currency, the euro included, is a gradual process characterized by considerable inertia. Though growth in the use of the euro has been rapid, the euro is still a very young currency. Conference participants agreed that rhetoric concerning use of the euro surpassing the use of the dollar is hyperbole. Shifts in the use of currencies are largely market-driven processes. Cognizant of the role of market forces in decisions on the use of the euro, most conference participants agreed that European policymakers have taken a sensible, low-key approach to encouraging greater international use of the currency.

The Position of the ECB and the Euro

European policy is neither to push nor hinder the international use of the euro. However, this ought not be interpreted as a policy of benign neglect. European policymakers wish to see greater international use of the euro; they monitor use closely. Indeed, the European Central

Bank (ECB) employs a number of policy instruments to encourage the international use of the euro. By faithfully fulfilling its core mandate—maintaining price stability in the Euro area and thereby safeguarding the internal purchasing power of the euro—the ECB has ensured that the euro will retain its asset value. The ECB also promotes the integration of Europe’s financial markets to develop deep, liquid, and efficient markets, making euro assets more attractive.

A European economist and a participating CEO largely agreed with this assessment. In the words of the economist, “the ECB has been established beyond a doubt, and its statute is the best of any central bank that exists on the globe.” He noted the wisdom of the institution’s statutory base: the very high degree of political independence granted the ECB; its long, finite terms of appointment for its directors; and its astute approach to monetary policy, namely, its decision to target the inflation rate rather than a specific monetary aggregate during a period of potential substantial change in the demand for money following the introduction of the new currency. This participant recommended that the ECB, as well as the Federal Reserve, not pursue an exchange rate target. However, both central banks should include exchange rate movements in their deliberations and in some instances may wish to adopt an exchange rate band as an intermediate tactical target. Within the internal debates of the central banks, exchange rank movements should play an important role because—so long as measures to reduce exchange rate volatility do not run counter to the pursuit of the inflation target—such an orientation helps to reduce the costs of adjustment for the international sector of the respective economies.

The Stability and Growth Pact will affect the strength of the euro, though many participants agreed that talk of the Stability and Growth Pact’s importance is overblown. Panelists concurred that the Stability and Growth Pact’s strictures on budget deficits (3 percent of GDP or less) should apply to cyclically adjusted budgets. However, European finance ministers have not publicly stated that this should be the case, as they are concerned about credibility. To date, no country has paid a penalty for violating the pact because all the member states understand the cyclical argument. As a consequence, Germany is getting away with its fourth year of a deficit above 3 percent. Nevertheless, the Pact has played a role in guaranteeing that the euro would be a strong currency, and in swaying Germany to adopt the euro. The German public believes it made a sacrifice in abandoning the Deutsche mark for the euro—perhaps for the good of all of Europe. Prior to the euro, the Deutsche mark was the dominant currency in Europe, and was used by international businesses to protect against exchange rate fluctuations. Now, of course, the euro has supplanted the Deutsche mark, providing the same assurance against inflation risks as did the Deutsche mark before it, and has eliminated European exchange rate fluctuations.

The long-term stability of the euro—in terms of inflation and exchange rates—will depend upon the credibility of the ECB more than on the fulfillment of the 3 percent deficit target of the Pact. To date, the ECB has performed well; no one in Europe is seriously concerned about a dramatic acceleration of inflation or a weakening of the euro's external value. The primary concern is the implications of budget deficits and high rates of taxation, demographic decline, and over-regulated goods and labor markets for economic growth. Indeed, there is a great opportunity to make better use of the economic potential of Europe; on average, Europeans work 1600 hours per year compared to 2000 by Americans. If Europe is serious about accelerating growth, this number must rise.

ASIA

Asia's future role in the international economy was a recurring subject of the conference, with views differing greatly. During the morning's first session, one expert on Asia presented a comprehensive treatment of the Asian perspective he had gathered from extensive interviews with experts from the Asian financial sector. He argued that Asian governments would be slow to change current policies.

Inertia behind the current system. Current conventional wisdom is that because of the decline of the dollar in recent years and large U.S. budget and current account deficits, Asian central banks will diversify their foreign currency reserves away from U.S. dollars, increasing their holdings of euros. But as the same expert on Asian issues noted, the major East Asian central banks have not been shifting into euro. He argued that none intend to increase the share of their holdings in euros significantly in the near future. Asian bankers, he argued, believe that the dollar is relatively stable, and that the euro has risen because the ECB has kept interest rates too high because it has consistently overestimated future rates of inflation.

The present East Asian consensus on foreign exchange reserves. Currently, Japan has the largest holdings of foreign exchange reserves, just slightly under $900 billion. China is second, with about $660 billion, followed by South Korea with $200 billion, and Taiwan and Hong Kong with about $100 billion each. According to this participant, none of these nations intend to diversify their reserves significantly in the foreseeable future.

The primary reason for not diversifying is the danger of a sharp decline in the value of dollar holdings if the market discovers that these central banks are shifting out of dollars. Because of the magnitude of their dollar reserves, these countries are "locked in." In one participant's opinion, if Japan were even to hint that it planned to diversify its $900 billion portfolio, the dollar would plunge against the yen and other major currencies—perhaps about 30 percent. A 30 percent decline in the value of the dollar to the yen would inflict foreign exchange losses of as much as $300 billion on the Bank of Japan. In the case of China, a 30 percent appreciation of the renminbi against the dollar would cost the People's Bank of China, $220 billion, about 13 percent of China's GDP. In his view, therefore, these banks have no incentive to endanger the value of their reserves in local currencies. However, even if a central bank holds $900 billion dollars in reserves, at some point in time, if the pain becomes too great and there are "too many eggs in one basket," it will be forced to diversify in earnest, even if such an action hurts.

Second, because these countries' trade is denominated in dollars, they have less reason to hold euro reserves. In China, 90–98 percent of trade is conducted in U.S. dollars. He argued it makes little sense to hold large reserves in currencies other than those in which the country trades.

Third, Asian economists and commercial bankers do not expect the dollar to be weak over the long term. Even though American trade deficits will not soon disappear, the U.S. economy is viewed as more dynamic than that of Europe. Asian speculators expect large capital inflows into the United States, keeping the dollar from falling sharply. In contrast, the euro is encumbered with uncertainties over the Stability Pact, economic growth, and the failure to adopt the EU constitution.

Fourth, Asian central banks have great confidence in the liquidity of the U.S. dollar. With hundreds of billions of dollars in holdings, this peace of mind is very important. During the Asian crisis, Taiwan lost more than $30 billion in reserves overnight.

Finally, he stated that Asia's top central bankers emphasize the significance of political trust and their long experience working with the Federal Reserve. For half a century, the Fed has proven that when a problem arises, and these major Asian banks need to sell dollar assets to restore liquidity quickly, the Fed is capable of forestalling substantial moves in the market. Historically, the Fed has always stepped in as a counterpart, when necessary. Of course, this in no way means that the ECB would be incapable or unwilling to do the same; the ECB's response during the events of September 11, 2001, for example, was exemplary. In the wake of the terrorist attacks on the United State's financial center, the ECB reacted and the world payment system was safe. However, the major central banks in Asia have more than 50 years of experience and confidence in working with the Fed, a degree of experience that they do not yet have with the ECB.

The long-term desire of the Asian central banks is to create an Asian bond market. At present, they are working hard to create common bond standards in order to allow the central banks of Asia to buy large volumes of each other's bonds.

The same Asian expert noted that though these views are strongly held at the moment and are unlikely to change in the foreseeable future, they are certainly not eternal. There is a considerable amount of inertia behind the current system. However, the global market is a fragile organism, very vulnerable to event risk. At some point, the calculations of Asian central bankers may change.

Another participant argued that should a major Asian central bank someday diversify its reserves out of dollars and into euros, it would most likely be China. Unlike Tokyo, Beijing is not part of Washington inner circles nor is it "well-behaved." China will pursue its own interests above those of the global financial community. However, currently Asian central bankers are concerned about event risk in Europe. Consequently, they will remain cautious.

The Renminbi. In 1994, the Chinese government unified the exchange rate, adopting one rate for all transactions—a major step towards convertibility. At that same time, the government made the decision to eventually permit the renminbi to float. At the time, Chinese economic policymakers thought the transition to a floating currency would be a three-year process. Although the decision to float has not changed, the timing was deeply affected by the Asian crisis. During the Asian banking crisis, many countries suffered declines in output comparable to those endured during the Great Depression of the United States. The lesson learned was that people can flee fragile banking systems very quickly, and therefore it is a grave error to free up your currency until you have fixed your banks.

Panelists were divided about the question of whether the Chinese currency is, in fact, undervalued at present. Most argued that the Chinese currency is indeed undervalued by a significant degree and creating great risk to the international system. One participant described East Asia as one "great big exporting machine." The Chinese leadership is convinced it will need to employ vast numbers of people who are now in the countryside by bringing them into the international economy, primarily by employing them in export industries. However, Chinese government policymakers have not aggressively looked at the possibility of developing urban employment by expanding service industries.

There was some concern that liberalizing financial outflows from China while floating the exchange rate could lead to a flood of Chinese capital onto international markets, especially if Chinese households moved savings from domestic to foreign currencies. Such a movement would trigger a depreciation of the renminbi.

However, some participants contended that Chinese capital controls are not very effective now. Chinese entrepreneurs and investors move capital out of China quite easily through transfer pricing as well as other methods. A company owner can under-invoice exports, keeping the difference between the invoiced amount and actual payment outside the country. The entrepreneur may then invest the foreign currency anywhere in the world, including back into China. Participants also argued that China could free up its currency without removing existing capital controls, including those on individual small accounts.

Other participants argued that currently money is allowed to flow into China, but is then blocked from flowing out. So what would happen to the market value of the currency if all of the blocks were taken off? China has about $3 trillion worth of short-term deposits in insolvent banks paying less than 1 percent interest. If even a tiny percentage of these savings were allowed to flow out, the currency would depreciate. The Chinese strategy of preparing for a floating rate has involved gradually opening the capital account in order to have, after quite a few years, a relatively free market. Meanwhile, the Chinese government is focused on fixing the state-owned banks.

The disparity between U.S. and European positions, on the one hand, and Chinese positions, on the other, stems from differing points of view. The United States and Europe are focused on trade imbalances, while China is focused on the stability of its banking system. For the Chinese government, this is a life or death issue. Were China's banking system to collapse, the economic and political consequences would be unimaginable. On this point, the Japanese agree; Japanese policymakers recognize the devastating consequences such an event would wreak on their own economy. Here, the politics become complicated. If the United States, Japan, and Europe were to jointly apply pressure on the Chinese, the Chinese government would likely feel it must revalue. However, the Japanese can be extremely difficult to read. The Japanese Vice-Minister of Finance, a politician, gives speeches saying that China needs to revalue, but when pushed, it appears the real Japanese policy is to favor the continued use of a pegged exchange rate at the current rate. The Japanese government is cognizant of the importance of Chinese demand for Japanese products for Japanese growth: Demand for Japanese exports from China is the difference between Japanese growth and Japanese recession. Demand from China for Japanese exports depends on the health of China's economy, which is threatened by the stability of China's banking system, which in turn may depend on the continued use of capital controls and a pegged exchange rate.

III. THE EURO AND GLOBAL FINANCE: IMPLICATIONS FOR EUROPEAN AND NORTH AMERICAN BUSINESS

The second session of the May 18th conference was a forum for business leaders to discuss the impact of the euro on company and transaction financing. It was chaired by James Thomson, President and CEO of RAND, and included presentations by James E. Rohr, Chairman and CEO of the PNC Financial Services Group, and David Richards, a private investor and an advisory board member of RAND Health and RAND Center for Middle East Public Policy. Participants were encouraged to provide details about shifts in the denomination of corporate assets and liabilities by currency and to provide examples of ways in which the euro has been beneficial to international finance.

CORPORATE TRANSACTION FINANCING BEFORE THE EURO

One recurring theme of conference presentations was that the euro's greatest impact on doing business in the EU has been to simplify the process of conducting financial transactions. The panel's first speaker, James Rohr, described the obstacles faced both by his bank and by the greater Pittsburgh business community in doing business in Europe before the advent of the single currency.

In the early 1970s, when Mr. Rohr's career in Pittsburgh began, the city was then the second-largest exporter in the United States. From this location, machine building and other manufacturing industries conducted business transactions all over the world, primarily in U.S. dollars. Over the decades, the global reach of some of these industries faded, in part because of the complications suppliers faced in doing business in numerous currencies in the different markets of Europe. In particular, companies dealing in smaller contracts faced substantial transaction costs and exchange rate risks. To operate as a supplier to Europe, U.S. companies had to set up service and distribution centers to provide components and services, many of them for relatively small dollar amounts. Setting up these distribution networks throughout Europe was costly. Consequently, smaller companies in Europe, which were better able to operate with the various currencies and which were geographically closer to their customers, were able to out-compete U.S. suppliers, including those from Pittsburgh. A number of these Pittsburgh-based manufacturers and suppliers have not survived.

Within Europe, multiple currencies also were a great obstacle to the efficiency of business operations. Europe has always possessed the potential to become a much larger economic entity than the United States. However, in the absence of a single currency and a single market, European businesses have not been able to take full advantage of Europe's larger market.

CORPORATE TRANSACTION FINANCING SINCE THE EURO

Since the creation of the euro, the nature of doing business across the Atlantic and within Europe has changed dramatically. One conference participant caught the young currency's biggest impact quite simply: "We now have literally thousands of new and old customers—small businesses—that are doing business in Europe and doing business very easily because of the euro." For these small businesses, the single currency has greatly reduced transaction costs and exchange rate risk, resulting in increased exports. No longer do these companies need to set up different accounting structures for every country in which they do business in Europe, reducing costs. Of course, this does not imply that conducting business across the Atlantic is simple, but the euro has eliminated one of the most costly and complex impediments to the process.

The euro has reduced the complexities of doing business in Europe for large corporations as well. The euro has simplified the foreign exchange business for banks as the number of major currencies has declined with the advent of the euro. One participant noted that his corporation's mutual fund processing business in Europe has been growing roughly 40 percent per year since the introduction of the euro, a market where individual investment accounts have not traditionally been common. Online banking has also become much easier for customers due to the single currency. The euro now allows people to manage risk by hedging in a different and more efficient way than they could previously. Although labor laws and taxation continue to differ within the Euro zone, financially speaking, the euro has facilitated a much more integrated market.

IV. SYNOPSIS OF SECRETARY O'NEILL'S KEYNOTE ADDRESS

In his keynote address to the conference, Paul H. O'Neill, former Secretary of the U.S. Treasury and former CEO of Alcoa, counseled that awareness of the euro is more than just the responsibility of corporate America. Increasingly, he said, Americans need to be of the world. Like it or not, the world is going to push on America in every way. And in a world full of danger and change, currency risk is, in some ways, one of the more manageable uncertainties.

Mr. O'Neill urged his audience to consider the ways in which the global economy is increasingly breaking down the barriers of the world. Gradually, capital flows are removing the walls of nationalism that have partitioned the earth for centuries. Even for small companies in Pittsburgh competition comes from the far corners of the globe. American businesses of all sizes need to understand these forces of competition to prevent falling victim to them.

To be aware of the world means to be aware of the rate and pace of change. In the past 25 years, we have refuted some notions that were once afoot. One such concept was that as the undeveloped and developing worlds begin to accrue discretionary capital and consumer purchasing power they would follow in the "wagon tracks" of the developed world. But the birth of new technologies such as cellular telephones has largely eradicated this notion. Because the developing world no longer needs to make enormous investments in infrastructure (such as laying cables and lines in the case of telecommunications), huge populations have been able to jump over the stages of the past and forge their own paths to modernity.

Secretary O'Neill argued strongly that a better world for other people does not mean a worse one for Americans. If anything, as we become more productive and deploy more of the ideas available, greater opportunities will open for adaptable American businesses. Today, great organizations do not even have to produce anything for inventory; they do it in real time, one product at a time. U.S. manufacturing jobs lost to foreign competition are returning as companies adopt these "just-in-time" manufacturing principles. For example, the influx of Asian car companies setting up manufacturing sites in the United States is a response to the need to site assembly close to their customers so that they quickly respond to shifts in the demand. As a nation, distance has the potential to become our ally again as we move toward the theoretical limits of doing business.

Looking at the success of the euro, Secretary O'Neill predicted further currency consolidation across the developed world. European nations are increasingly recognizing that becoming part of a harmonized monetary community may be in their best interest, if for no other reason than to wipe away exchange rate risk. However, O'Neill cautioned that a common currency without an organized fiscal policy for the nations that exist under it, as the euro now is, can be potentially harmful to some economies of that community. To illustrate his point, O'Neill cited the circumstances of southern Italy, where living standards are unlikely to rise because the region has not been economically competitive with other parts of Europe. An integrated European fiscal policy and systems of transfers to depressed regions would help increase living standards in this region.

Free trade with China is healthy for the American economy, O'Neill said. More broadly, fair and free trade are the best ways to advance the standards of living across the globe and to promote stability and peace. O'Neill praised the Bush administration's recent decision to warn China about its exchange rate system, which distorts the cost of American-made goods relative to those of China. However, like other participants, O'Neill told the conference he did not expect China to take any quick actions to rectify its exchange rate policies. Rather, he believes that China will eventually allow the renminbi to float, at least partially, rather than keep it pegged to the U.S. dollar. Any drastic increase in the value of the renminbi would cause severe problems for world markets. As O'Neill said, "If you are on the U.S. side and you're a retailer who bought goods [from China] you thought would cost $1 and it now costs $1.27, that's a real problem."

V. CORPORATE EXPERIENCES WITH THE EURO: EFFECTS ON BUSINESS STRATEGIES AND OPERATIONS

The third roundtable gave the conference audience the opportunity to listen to the decisions and changes CEOs have made in their corporate strategies and operations that were driven or affected by the introduction of the euro. The third session was chaired by Ambassador James Dobbins, Director of the International Security and Defense Policy Center at RAND, and included presentations by Dr. Attila Molnar, President and CEO of the Bayer Corporation, and Mr. L. Patrick Hassey, Chairman, President, and CEO of Allegheny Technologies, Inc. Panel participants were encouraged to provide specific examples in which the euro has been beneficial to their operations, as well as discussing problems they have encountered since its introduction.

CORPORATE EXPERIENCES: A CASE STUDY IN ADAPTATION

During the conference, CEOs, business leaders, and economists alike echoed a common line: The unified currency has made American businesses better able to compete in Europe, the largest market in the world. Examining the numbers, the euro-area's strategic importance to American business operations is obvious. In 1996, when Europeans started to discuss in earnest introducing the euro, the EU region possessed a population of 370 million (with the potential of another 100 million after expansion) with an average per capita GDP of $23,000.

For companies like the Bayer Corporation—whose President and CEO, Dr. Attila Molnar, was the session's first speaker—this area has a model consumer base. Before the introduction of the euro, fifty percent of Bayer's sales and two-thirds of its profits came out of Europe. But in 1996, the large number of currencies within the European Community made doing business unnecessarily costly and complicated. As a consequence, Bayer's support for the unified euro was unwavering. No longer did Bayer want to bear the expenses of protecting against exchange fluctuations. After the introduction of the euro, the company expected markets to operate more transparently. Pricing was expected to be simpler with less variation across markets. Bayer could plan for the future with more assurance, making it easier to evaluate investment plans. Financing conditions were expected to become more favorable.

Bayer found changing its operations to respond to the introduction of the euro challenging. The enormity of transforming the internal accounting, billing and payroll systems for a company the size of Bayer was overwhelming. All of the company's day-to-day operations had to be changed because of the euro: 350 different data processes needed to be converted from various currencies into the euro. Business operations ranging from pricing and discounting to warehousing and packaging had to be reconsidered. Remuneration policy—salary agreements, bonus systems, and more—in each of the 15 countries in which Bayer was active had to be reexamined. The accounting system—including valuation of currencies, value thresholds, local and group financial statements, all tax returns—had to be changed. In addition, Bayer had to outfit its system with all new software because the current system was unable to operate simultaneously in two currencies, a necessity for the period when both national currencies and the euro co-existed.

It is no wonder, then, that Bayer started the implementation process two years before the euro even came into existence. In total, the conversion required more than 750 employees working full time on the transition. The transition involved more than 100 suppliers and customer companies in the 15 EU countries.

The operational transformations caused by the unified currency proved equally daunting—and, ultimately—equally rewarding. In the case of the Bayer Corporation, all of the back office operations required consolidation. In the days of multiple national currencies, Bayer had at least one accounting center for every single country of the European Community to handle transactions—accounts payable, human resources, accounting, and so on. With the euro, Bayer harmonized the entire operation by opening one shared service center for all of Europe. Bayer located this company in the country that was, at that time, most advantageous from a cost and operational perspective: Spain. Not only was the combined service center far cheaper to operate in Barcelona, but also by combining all of its European back office activities, Bayer reduced its overall costs in this area dramatically.

Bayer also created a new European marketing organization and new pan-European business and development strategies. Bayer decided what products would be produced in what plants for what customers for all of Europe. Bayer tailored these changes to those industries that were strictly regulated and those that were not. Now—with one currency, one bank, one European and global strategy—all operations became much easier, and the bottom line was a more successful overall organization.

Bayer also had to anticipate the effects of the euro on the behavior of their customers and suppliers, which was no simple task. With respect to supplier activity, the introduction of the euro made it possible to easily compare prices from suppliers from all over Europe. Bayer also created a uniform pricing structure for all of Europe. In some cases, this entailed price reductions. Creating a uniform pricing structure took longer than the company had planned. However, because Bayer had also been preparing and unifying its back- and front-office operations and cutting costs, the company was able to do a better job than most of its competitors. In the case of strictly regulated products or processes, the changes in operations were different. In healthcare, for example, different price caps, regulations, and reimbursement policies within the countries of the euro-zone led to continued differences in prices across countries.

But despite the thoroughness of these efforts, the need for more changes still exists. For instance, the free movement of goods, services, and labor from low-wage countries outside of Europe to the more developed countries of Europe continues to displace members of Europe's low-income work force. In the coming years, further policy discussions will focus on national subsidies, the drive for tax law and regulatory harmonization, and the mitigation of differences in regional living standards. As the EU gears up for its next expansion, these issues will become particularly critical.

Further enlargement of the euro-area promises great new economic rewards for corporations like Bayer who are embracing and adapting to the new conditions of doing business in Europe. The leaders of these companies are confident that they will be even better prepared for the coming rounds of accession than they were for earlier ones. Already, for example, Bayer has its back office processes in place in the new member states. Their front office strategies are already prepared, the business structures are planned, and most of the improvements in efficiency have already been captured. In each of the ten EU countries that have not yet adopted the euro currency, Bayer has already experienced above average growth, and Bayer expects to see more growth in these areas in the future.

In sum, the young currency of the euro is strong and is likely to grow stronger. It has already met its original objectives—improving the competitiveness of the euro-zone, and making the cost of goods and services directly comparable across national boundaries, favoring the adoption of lower prices, thereby reducing overall inflation. For successful companies like Bayer, these changes have translated into dramatically increased productivity and streamlined operations.

Mr. Hassey, Chairman, President, and CEO of Allegheny Technologies, Inc. discussed the opportunities and challenges for a major U.S. exporter with the advent of the euro. He noted that historically Allegheny Technologies has chosen to handle currency risk by conducting its international business in dollars. Even since the birth of the euro, this remains his company's practice. Invoking the example of the aerospace industry, a major customer, where both the prices of components and materials and the end product—from metals to engines to the airplanes themselves—are typically priced in U.S. dollars, he explained that his business remains a dollar business. Moreover, because such a large share of the cost of production is priced in dollars, the appreciation of the euro against the dollar has been less beneficial to his business than might seem the case. Because everything in these markets is priced in dollars, his European competitors are suffering from the increased dollar costs of labor, but most other costs, which are priced in dollars, have remained the same.

In his own corporation's experience, when producing materials and selling them to European divisions in dollars, the customer immediately puts pressure on the supplier to reduce prices due to changes in exchange rates. As a consequence, there has been only a modest push to move production out of continental Europe back to the United States. Although U.S. manufactured goods are now more competitive, exporters still need a European service base and in many instances European plants for final finishing.

This is not the case in the United Kingdom, however. Mr. Hassey noted, "The English Channel is wider than the Atlantic Ocean." Both in the economic and geographical sense, England is today an island. Operations in the United Kingdom, because of the smaller national market and the importance of the U.S. and continental European markets for sales, are more vulnerable to exchange rate fluctuations than either Euro zone or U.S. manufacturers. Because of the pound's relative strength against both the dollar and the euro in recent years, United Kingdom (UK) manufacturers and operations have suffered.

Mr. Hassey concurred with other participants that the common currency has made pricing more transparent and made doing business in Europe easier, especially in those European countries like Italy whose currencies had not been as stable as Germany's.

VI. THE EURO: IMPLICATIONS FOR GLOBAL TRADE AND INVESTMENT

The final session of the conference examined the benefits of the euro for trade and investment and the implications of the extension of the euro operations to the new member states. The session was chaired by Barry Balmat, Director of RAND's Pittsburgh Office, and included presentations by Gary Litman, Vice President for Europe and Eurasia at the U.S. Chamber of Commerce; Hervé Carré, Minister for Economic, Financial and Development Affairs at the Delegation of the European Commission to the United States; and Keith Crane, Senior Economist at RAND.

THE FIRST SIX YEARS: IMPACT ON TRADE AND FOREIGN DIRECT INVESTMENT

Monetary Integration and Trade

The euro is one of a large variety of policy instruments that the European Union has employed to integrate Europe. It is integrating the European Union monetarily with all the concomitant benefits. The primary economic benefits of monetary integration are the following:

1. Lower transaction costs. A single currency allows exporters or customers to save on the transaction costs associated with the management of multiple currencies. Transaction costs include conversion charges on foreign exchange markets, the cost of hedging against currency fluctuations, in-house costs associated with the management of multiple currencies, and banking charges on cross-border payments. In 1990, transaction costs due to the use of multiple currencies were estimated at 0.3–0.4 percent of GDP in the EU on average.
2. Exchange rate stability. Exchange rate volatility can hamper trade despite the existence of well-developed markets for currency hedging. In practice, exporters cannot insure themselves adequately against all forms of exchange rate risk. Hedging is often more costly for currencies which are not traded heavily on global financial markets. In addition, available hedging instruments are essentially of a short-term nature. There are reasons to believe that trade is also affected by medium- to long-term fluctuations in real exchange rates. Hedging against such medium- to long-term risks is in most cases difficult and often impossible.

3. Price transparency. A single currency facilitates cross-border comparisons of prices, thereby enhancing cross-border competition and increasing trade flows. In this context, EMU is a crucial complement to the EU's Single Market program.

Through these three channels, the euro fosters intra–euro-area trade flows and thereby contributes to increasing economic welfare through a better allocation of resources within the area.

Monetary Integration and Foreign Direct Investment

Contrary to trade, economic theory is less clear-cut as to the impact of a single currency on flows of foreign direct investment (FDI). Reflecting the multiplicity of factors affecting investment decisions, alternative models of the determinants of FDI have indeterminate results: Some find monetary integration should have a positive effect, while some find it has a negative effect on FDI.

Foreign direct investment can be a substitute for trade if it is directed at bypassing trade restrictions or at servicing local markets. It can be a source of trade if it is directed at boosting exports to the local market or at producing for re-export by taking advantage of the comparative advantage of the host country. Factors that affect trade—such as transaction costs or exchange rate uncertainty—will have different implications for FDI depending on whether it is trade-substituting or trade-creating. To the extent that monetary integration boosts trade flows, it will also tend to fuel trade-creating FDI while restraining trade-substituting FDI.

A similar argument can be made when looking at the specific role of exchange rate risk. Exchange rate fluctuations affect the stream of income from a foreign investment operation. The reduction of exchange rate risk associated with a single currency tends to support FDI. On the other hand, replacing exports with local production may make it possible to reduce the volatility of the stream of profits from a specific export market. In that case, monetary integration may lead to a reduction of FDI. So, the jury is still out.

Trade and EMU

Until the late 1990s, the potential impact of monetary integration on trade was widely believed to be positive, but relatively small. This conclusion was underpinned by economic estimates that the transaction costs of using multiple currencies were modest. Empirical studies had generally failed to find a strong negative correlation between exchange rate uncertainty and trade.

This area of research was given new impetus in 2000. Employing a gravity model of trade flows for a large number of countries, A. K. Rose identified a large negative effect of exchange rate volatility on trade flows. He also found that trade flows between countries sharing a common currency were three times larger than flows between otherwise similar countries. This common currency effect came on top of the exchange rate volatility effect.

Given its magnitude, Rose's estimate of the common currency effect was initially greeted with skepticism. Estimation techniques and models were subsequently refined and the estimated magnitude of the impact reduced. However, the overall conclusion of a very large effect of a common currency on trade was not altered significantly.

Rose's initial empirical evidence on the common currency effect rested on data for small or poor countries. It was unclear to what extent his results applied to EMU. However, in recent years, a number of studies have endeavored to address the specific issue of the link between the euro and trade. The main conclusion that emerges from these recent empirical studies is that EMU has already had a sizeable impact on intra–euro-area trade flows. Some uncertainty remains as to the exact size of the EMU effect. Depending on the methodology used, the estimated impact on intra–euro-area trade flows varies between 5 and 50 percent. Although this is below the early estimates by Rose, the EMU effect has probably not yet reached its maximum. Its long-run impact will probably be closer to the upper than the lower end of the above range.

Foreign Direct Investment and EMU

Although the impact of the Single Market on European flows of FDI has given rise to a substantial body of research, the empirical literature on the effect of EMU has been sparser. The link between foreign direct investment and exchange rate uncertainty has generated a relatively large body of empirical literature. However, reflecting the complexity of the relationship between uncertainty and investment, studies have often come to contradictory conclusions.

Recent Trends

Since the late 1990s, trade within the Euro area has clearly expanded more rapidly than trade between the EMU member states and the other three EU countries. The EMU effect on trade can be confirmed statistically with the help of a simple trade model relating member states' trade with the Euro area to a time trend and a dummy variable capturing a possible EMU effect. The main conclusion from the estimation of such a model is that trade flows with the Euro area have increased for EMU members, between 7 and 18 percent depending on the estimation strategy adopted. The range is conservative to the extent that it only captures the impact that is already visible (in the data up to 2002) and that the full effect may not yet have been reached. No shift in trade is observed for the EU countries that have not adopted the euro.

Foreign Direct Investment into and from the Euro Area

The late 1990s have seen a massive increase of FDI flows to and from the Euro area. This surge in foreign direct investment is part of a broad globalization trend that has affected most industrialized countries. Most Organisation for Economic Co-operation and Development (OECD) countries experienced a significant increase in FDI flows over the period. Potential explanations for this trend include the growing importance of multinational enterprises, deregulation, investment-friendly policies in a number of countries, and cross-border consolidation in information and communication technology-related sectors.

Increases in FDI in the late 1990s can also be put down to the equity price bubble that built up during that period. FDI flows in recent years have been largely dominated by mergers and acquisitions of existing businesses as opposed to green field investments. As a result, the factors that contributed to fuel equity prices, including easy access to equity capital and excessive profit expectations, probably also boosted foreign direct investment activity. Inflated stock prices also had a direct impact on the statistical valuation of those FDI operations consisting of acquisitions of large shares in quoted companies.

At the euro-area level, this broad globalization trend is visible but globalization alone cannot explain all recent developments in euro-area FDI. The analysis of inward FDI flows indicates that the Euro area became a comparatively more attractive location for foreign investment in the late 1990s. During that period, the share of inward FDI in GDP increased more markedly in the Euro area than in the United States and, to a lesser degree, in the United Kingdom. Despite significant declines in FDI in the current downturn, the share of inward FDI in GDP remained sizably higher in the Euro area in 2001, at 4.7 percent compared with 3.7 percent in the United Kingdom and 1.2 percent in the United States. Recent FDI inflows into the Euro area have probably been partly fostered by EU-wide factors, including the Single Market and the associated cross-border consolidation of EU industry, the privatization of state-owned companies, and the deregulation of public utilities. Nevertheless, a comparison of recent developments in EU countries not belonging to EMU with developments in the Euro area points to a significant impact of the single currency on foreign investment. For example, the United Kingdom's share of total inflows into EU 15 in 1999 was 16.5 percent; in 2003, 4 percent. This indicates that the increased attractiveness of the Euro area as a destination for FDI is, at least partly, attributable to the euro.

Conclusion

The available empirical evidence points to a sizeable effect of the euro on trade and, possibly, foreign direct investment in the Euro area. Several empirical studies are now available that, based on estimated trade models, all conclude that the euro has already had a large impact on intra–euro-area trade. Depending on the studies considered, the effect of the euro on intra–euro-area import flows is estimated to range between 5 and 50 percent. There is also some evidence that the EMU or euro effect on trade has not yet reached its maximum. As existing estimates only capture the effect already embedded in existing data, the long-run impact of EMU is probably closer to the upper end of the estimated ranges.

Empirical evidence is more limited in the case of FDI. An analysis of recent FDI flows indicates that the attractiveness of the Euro area as a destination for foreign direct investment has increased significantly since the launch of the euro. However, FDI is determined by a large number of factors, among which the magnitude of a positive effect of the euro is difficult to assess.

THE EURO INTO THE FUTURE

The final presentation of the day focused on the future of the euro, specifically on the likely impact of the expansion of the Euro zone to the European Union's newest members, who have committed to adopting the euro in the years ahead.

The New Members of the EU

On May 1, 2004, ten states joined the EU. Of this group, eight were Central and Eastern European states. Three of these—Estonia, Latvia, and Lithuania—had been part of the Soviet Union. The accession process these countries went through was long and complicated: each year, they were evaluated by the European Commission on progress towards meeting EU standards in 31 areas. Two of the initial 12 applicants—Bulgaria and Romania—failed the test, though they now hope to be admitted in 2007.

The fiscal costs and benefits of membership are substantial. The new members will receive 42 billion euros in transfers from the other member states between 2004 and 2006. However, they will also pay 12 billion euros in taxes to the EU, a significant sum for a group of countries that on average is much poorer than the rest of Europe.

Membership in the single market will eventually create a single market for labor, permitting citizens of the new members to work anywhere in the EU. For the time being, a number of the original EU member states do not permit citizens of the new members to work within their borders without special work permits. Over the next few years, however, these restrictions will be relaxed. In the meantime, some countries, like Ireland and Great Britain, have taken a looser stance on this issue.

Much attention has been paid to Europe's slow growth rate, but among the new members, GDP growth has accelerated since joining the EU, especially in Poland and Slovakia where growth rates jumped from 1.4 percent to 5.4 percent and from 4.6 percent to 5.5 percent, respectively, between 2002 and 2004. These higher growth rates have exceeded that of the United States over the corresponding period and have translated into rapid increases in the living standards in the new member states.

The Next Round of Admissions: 2007

The expansion of the Euro zone is unlikely to stop with the accession of these new members; several countries on the periphery of the EU area are presently in the queue and jockeying for membership. Bulgaria and Romania are expected to join in 2007, followed by Croatia. Accession negotiations with Turkey have been opened, though Turkish membership is widely unpopular among current members of the EU. All of the countries in the Balkans have been offered the chance to apply for membership, including Albania, Bosnia, Macedonia, and Serbia and Montenegro; within the next decade or two, these countries are likely to have joined. Ukraine, Moldova, and the Caucasus countries would also all like to become members, though their chances are murkier. Thus, though the EU is trying to slow down the enlargement process, the EU will continue to face pressure from neighboring countries beating on the door to membership. The EU has attempted to create permanent, alternative relationships with countries on its periphery to include them in the larger European area, but without full membership in the EU. But repeatedly, these efforts have been met coolly. For citizens of countries that would like to join the EU, there is still the fear of always being left outside, as they have been during the post-Cold War transition period and during the Cold War.

Until they become members, the "outs" will remain in a worse economic position than the "ins." Bulgaria, for example, whose membership is delayed until 2007, is currently at a competitive disadvantage with the new members in fruit and vegetable exports because the new members, like Poland and Hungary, have better access to EU markets. For the time being, FDI is likely to stay concentrated in the new member states. Investors are attracted to the new members because they are still in the EU, but their labor costs are a small fraction of those in Western Europe. Countries like Slovakia and Estonia have enjoyed a great influx of industry. However, these foreign investments are not going the short distance further to places like Bulgaria, Romania, and Ukraine because, despite their lower labor costs, these countries are not yet members of the EU.

New Members and the Euro

As part of their obligation as members of the EU, each of the new members has committed to EMU and to eventually adopting the euro. This process will involve abandoning their national currencies for the euro, joining the European Central Bank, and coordinating economic policies with the other states of EMU. However, in order to adopt the euro, each new member must satisfy the Maastricht criteria. These requirements include maintaining budget deficits of less than 3 percent of GDP and government debt of less than 60 percent of GDP, keeping inflation rates within 1.5 percentage points of the lowest 3 countries in the Euro zone, and lowering interest rates to within 1.5 percentage points of the lowest 3 countries in the Euro zone. Additionally, new members are required to have their national currency track the euro for two years before adopting the euro.

Unlike the decision Germany faced, adopting the euro will be an easy choice for almost all the new member states. Many have adopted new currencies relatively recently; the currencies of Estonia, Latvia, Lithuania, and Slovenia are all less than 15 years old. Citizens and businesses in these countries have always used the Deutsche mark and now the euro in addition to their national currencies. In Slovenia, for example, 90 percent of household savings are in euro deposits rather than the national currency. The euro is already part of how people in the new member states save, price items, and conduct business transactions.

The economies of these countries are so small and the use of the euro so pervasive that they do not really benefit from having their own currencies. Two of the biggest economies in this group—Czech Republic and Hungary—have economies roughly the size of the greater Pittsburgh area. In places like Estonia or Latvia, the economies are roughly the size of a large suburb of a major U.S. city. Already, decisions by companies and consumers in these countries on where to sell and where to buy are dictated by euro prices. Companies already export and purchase in euros. So the adoption of the euro will eliminate a superfluous step in corporate financial operations.

The benefits of the euro for these new members will be considerable. Companies in these states will no longer need to worry about exchange rate risk. Purchases will be priced in euros, and sales will be invoiced in euros. Companies will be able to simplify accounts and will no longer be vulnerable to the costs of fluctuating exchange rates stemming from short-term capital flows. Moreover, with the elimination of the exchange rate risk, interest rates will continue to decline.

As many participants repeatedly expressed throughout the conference, the adoption of the euro will reduce uncertainty. And these new member countries have had very uncertain pasts—invasion, occupation, and devastation from two World Wars; annexation by the Soviet Union; and the post-Cold War transition, followed by inflation rates of 900–1000 percent. The euro will provide stability to populations whose lives over the past half-century have been anything but stable. Just the promise of entry into the EU and the single currency, in fact, has resulted in dramatically declines in interest rates and substantially lowered inflation rates (Figure 2).

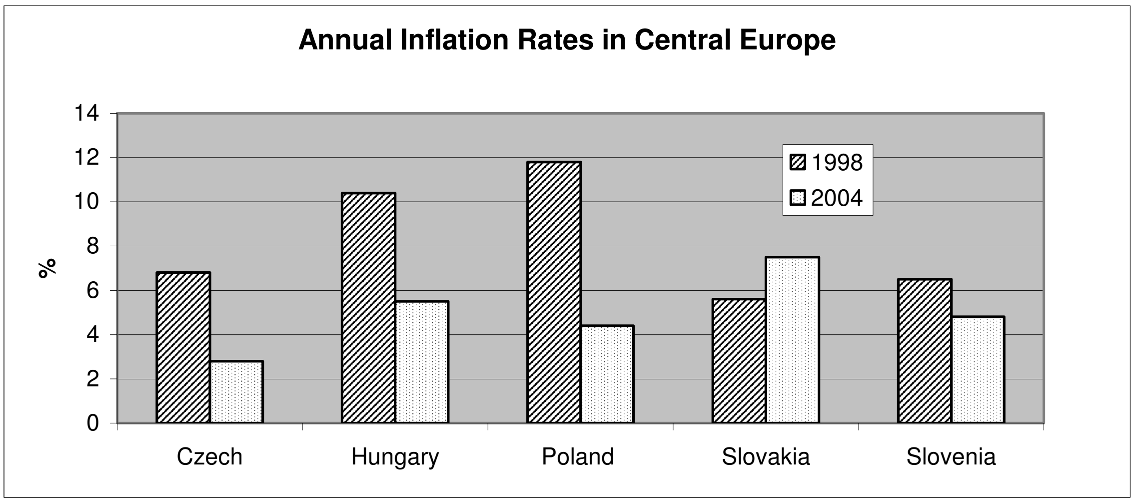

Figure 2: Declines in Inflation in Central Europe, Source: International Financial Statistics, International Monetary Fund.

Implications for U.S. Business

At present, these new member countries are not large export markets for U.S. exporters. Total U.S. exports to the 10 accession countries only run about $3 billion per year. Of this group, Poland has been the United States' largest market, accounting for approximately 25 percent of all exports to the accession countries. Agricultural exports make up a large portion of this volume, and these have fallen as barriers to agricultural trade have risen in these countries in the run-up to accession. On the surface, then, America's business interest in these new accession countries is modest.

Looking toward the future, all indicators suggest this will not continue to be the case. The new member states are growing rapidly. As incomes continue to rise, consumption patterns will begin to resemble those of Western Europeans and Americans.

U.S. businesses have also benefited from policy and regulatory changes following membership. Tariff rates imposed on U.S. exports have fallen sharply in a number of the new members states, most notably Poland and Hungary. Before entry, both had fairly high average tariffs (13 percent in Hungary on U.S. exports), which have since fallen to EU levels. However, some new members, like Estonia and the Czech Republic, have had to raise tariffs on U.S. exports. These states had lower average tariffs in place than the EU.

The harmonization of standards, health, and safety regulations has also removed significant hurdles faced by American exporters. Additionally, new members' compliance with EU environmental standards has stimulated demand for U.S. exports of environmental control equipment. U.S. pharmaceutical exports are benefiting from EU protections of intellectual property rights. In many ways, the expanded EU means tangible benefits for U.S. exporters.

But the enlarged EU has created some economic irritations as well. While the accession countries are now obligated to comply with certain EU regulations that are beneficial to U.S. exporters, they are also committed to comply with some that American exporters dislike. These include curbs on imports of genetically modified foods and seeds, EU recycling regulations on cars and electronic equipment, and EU content stipulations for television programming.

Industries in some accession countries may exacerbate existing trade frictions between the EU and the United States. Many of these countries have industrial structures, which are fairly similar to those in Western Europe in the past; Poland and Czech Republic, for instance, produce large amounts of low-value steel. EU agricultural policies are likely to trigger increased production of grain, pork, and beef, which will result in increased exports of subsidized EU agricultural products in competition with U.S. production.

The adoption of the euro may marginally contribute to a decline in the value of the dollar. Household savings, the invoicing of trade, and corporate and government liabilities will continue to shift from dollars to euros in accession countries. Countries on the periphery of the euro-area—like Russia, Ukraine, and the Balkans—will be moving increasingly to euros as well.

VII. CONCLUSIONS

On the eve of the French and Dutch referenda on the EU Constitution treaty—an event of critical importance to the EU and the euro's future—the conference was fittingly closed by the remarks of Ambassador John Bruton, former Prime Minister of Ireland and a leading member of the caucus that drafted the European Constitution, signed in Rome on October 29, 2004. Ted Smyth, Senior Vice-President and Chief Administrative Officer (CAO) of Corporate and Government Affairs at the H.J. Heinz Company introduced Ambassador John Bruton.

In his concluding remarks, Ambassador Bruton revisited the question of the EU's broader vision and purpose. In his words, "It is important to see the euro for what it is: a political project. It is a political project that grows out of Europeans' commitment to never experience war again … Wars draw people into conflict with one another who have no wish to be in conflict. Wars frequently are the fruit of fevered statecraft that spirals out of control, of fears that are more perceived than real, fears which arise because people don't have enough opportunity to talk to one another, to do business with one another, to interact with one another on a daily basis. And the reason we are creating a European currency, the reason we have created a single market for goods and services in Europe, is that we want Europeans to be doing business with one another so frequently that they end up understanding one another so well, and that they have a sense of loyalty to one another, that they will never, ever, ever go to war with one another ever again. That's what it's all about."

That the dangers of nationalism persist and might someday lead to a repetition of the mistakes of the 19th and 20th centuries is a fear that will consume Europe—at least until a truly unified society is achieved. Europe has witnessed countless attempts at integration over its long and torturous history, most of them by force, but there is real reason to believe this one could last. The euro's greatest contribution to the EU, beyond even its economic benefits, is the vital role it plays in this larger peace project. It is a central part of the creation of history's only multinational democracy. The wonder of this achievement must never be overlooked; every law made by the EU is approved by the democratically elected governments sitting in the Council of Ministers from each of the 25 members and by a European Parliament that is directly elected by the people of Europe.

The EU is thus more than a simple treaty between states, but a democratic exercise uniting people as well as states. Every other bringing together of people that has taken place in history has been done by force under the aegis of empire. Virtually without exception, every country that exists in Europe today was created by war—France by a succession of wars over a thousand years; the United Kingdom by a succession of wars over three to four hundred years; Germany by a succession of wars over a briefer period, 1866 and 1870. But the European Union has been brought together entirely by the exercise of diplomacy and patient compromise. Because of this, and because any country may withdraw at any time, the EU is also an essentially fragile project. Without the consent of the people to be ruled by a majority, and without the consent of a country to be outvoted and to accept a decision made against its own will, the project would fall apart. The fragility of this project is thus matched only by its ambition.

Conference participants discussed the question of the EU's future should France or the Netherlands fail to endorse the Constitutional treaty. Some quipped, "There is no other option [but a 'yes' vote]." But in general, all were in agreement: that failure to ratify the Constitution, essentially a compilation of existing treaties, would not be an incapacitating blow to the functions of the EU, though it would be an impediment to the vision of continued integration. It was the consensus of the conference that without the treaty, the EU's capacity to proceed with new initiatives would be dampened. The greatest blow would be psychological. This blow would be deepened by the irony of its source—a division caused within two of the founding countries, whose ministers believed deeply in the system. Nevertheless, in the event of the rejection of the Constitution, panelists unanimously agreed—the business of the European Union would go on. In the words of Ambassador Bruton, "If Sunday, France decides to vote 'no,' we would all still come to work on Monday. By Tuesday, we would certainly find our boxes would be filling up with things we needed to do anyway, things that were going to be beneficial anyway, logical developments of what we have achieved already, which we would want to complete. So after the initial period of angst and self-examination and the absorption of large acreages of newsprint-consuming opinion pieces, the EU will simply get back to work—perhaps a little more humbled, but no less effective."

But whether or not the Constitutional Treaty is ever ratified, the European integration process will march on in step with the global forces of democratization and increasingly freer markets. As the former Secretary of the U.S. Treasury Paul H. O'Neill stated during his keynote address to the conference, "We must be of the world." And the reality is, at this unique junction in history, we can be. Increasingly, mid-sized U.S. companies are comfortable with the European market. In the past five years, these companies have come to recognize their power to serve customers on both sides of the Atlantic, without fear of the vitality and stability of the European currency. At the same time, the people of East Asia are looking on this relationship very carefully and arriving at their own political decisions. The United States and Europe have thus a great stake in making certain that our businesses see themselves as part of one increasingly integrated community market, as a team for transatlantic prosperity.

A. CONFERENCE AGENDA

"Doing Business with the Euro: Risks and Opportunities"

May 18, 2005

Introductory Remarks

Welcome by James Thomson, President, RAND Corporation

Welcome by Hervé Carré of the Delegation of the European Commission

The Euro, the Yen, the Renminbi, and the Dollar: Portfolio Shifts and Capital Account Balances

Chair: Professor Alberta Sbragia, Director of the European Union Center, University of Pittsburgh

Panel Participants:

- William Overholt, Senior Economist, RAND Corporation
- Norbert Walter, Chief Economist, DeutscheBank
- Dr. J. Onno de Beaufort Wijnholds, Representative of the European Central Bank to the International Monetary Fund

Financial Industry Roundtable—The Euro and Global Finance: Implications for European and North American Business

Chair: James Thomson, President, RAND Corporation

Panel Participants:

- James E. Rohr, Chairman and Chief Executive Officer, The PNC Financial Services Group
- David K. Richards, Private Investor

Keynote Speech: "Corporate America and the Euro," Paul H. O'Neill, former Secretary of the Treasury and former CEO of Alcoa

Business Roundtable—Corporate Experiences with the Euro: Effects on Business Strategies and Operations

Chair: Ambassador James Dobbins, Director, International Security and Defense Policy Center, RAND Corporation

Panel Participants:

- Dr. Attila Molnar, President and Chief Executive Officer, Bayer Corporation
- L. Patrick Hassey, Chairman, President and CEO, Allegheny Technologies, Inc.

The Euro: Implications for Global Trade and Investment

Chair: Barry Balmat, Director, RAND Pittsburgh

Panel Participants:

- Gary Litman, Vice President, Europe and Eurasia, U.S. Chamber of Commerce
- Dr. Keith Crane, Senior Economist, RAND
- Hervé Carré of the Delegation of the European Commission

Closing

Introduction by Ted Smyth, Senior Vice President and Chief Administrative Officer, H. J. Heinz Co.

Closing remarks by Ambassador John Bruton, Ambassador of the Delegation of the European Commission

Adjournment

B. SPEAKER BIOGRAPHIES

Barry R. Balmat, Director of Pittsburgh Office, RAND Corporation

Barry Balmat has been the Director of RAND's office in Pittsburgh since 2001. Prior to moving to Pittsburgh, Mr. Balmat served as the Deputy Executive Director of Development at RAND's headquarters in Santa Monica. In that capacity, he helped direct RAND's $100 million capital campaign, market RAND's services to the private sector, and establish a program for developing RAND's intellectual property into commercial products. He was a member of the development committee for RAND's new 300,000 square foot corporate headquarters in Santa Monica, and supported RAND's CEO in the process that led to the selection of Pittsburgh as the location of RAND's third major U.S. office.

Mr. Balmat first joined RAND in 1972 as the Executive Assistant to the President, and left in 1979 after holding the position of Chief Financial Officer. After his departure, Barry was a partner with Durkee, Sharlit Associates, a management consulting firm specializing in crisis management, and later the co-owner and CEO of Coast Wire Tech, a manufacturer and distributor of electronic cable. Prior to joining RAND in 1972, he was an operations research analyst with the Office of Management and Budget (OMB) in Washington, D.C. Mr. Balmat holds a B.S. in Civil Engineering from the University of Illinois and an MBA from Stanford University. Between degrees, he was an associate aircraft engineer with Lockheed-Georgia.

John Bruton, Ambassador, the Delegation of the European Commission to the United States

John Bruton is the current Ambassador of the Delegation of the European Commission. Before being appointed as the EU Head of Delegation in the United States in 2004, Ambassador Bruton served as a leading member of the caucus that drafted the first-ever European Constitution that was signed in Rome on October 29, 2004, and is now before the 25 EU Member States for ratification. Ambassador Bruton is a former Irish Prime Minister (1994–1997); a former member of the Irish Parliament, to which he was elected at the age of 22 as a member of the Fine Gael Party, becoming Party Leader in 1990 and leading it to victory in 1994; a former Irish Minister for Finance (1981–1982 and 1986–1987), Minister for Industry and Energy (1982–1983), and Minister for Trade, Commerce, and Tourism (1983–1986).

During Ambassador Bruton's term as Prime Minister, he helped transform the Irish economy into the "Celtic Tiger," one of the fastest growing economies in the world. He was also deeply involved in the Northern Irish Peace Process leading to the 1998 Good Friday Agreement. Additionally, while Prime Minister, Ambassador Bruton presided over a successful Irish EU Presidency in 1996 and helped finalize the Stability and Growth Pact, which governs the management of the single European currency, the euro. He represented the EU at summit meetings with the President of the United States, the Prime Ministers of Canada, Japan, China, and Korea, as well as Chairman Arafat of the Palestinian Authority. Before studying to become a barrister, John Bruton graduated from University College Dublin with a Bachelor of Arts degree.

Hervé Carré, Minister for Economic, Financial, and Development Affairs at the Delegation of the European Commission to the United States

Hervé Carré has held his current post as Minister of Financial Affairs at the Delegation of the European Commission since December 2002. Mr. Carré joined the Commission in 1973, rising to the rank of Acting Director-General in 2001. As Director for the Economy of the Euro zone and the Union in the Commission's Directorate General for Economic and Financial Affairs from 1999-2001, Mr. Carré was responsible for the practical aspects of the introduction of euro notes and coins. From 1994 to 1999, he served as Director of Monetary Matters and as a member of the Monetary Committee. In this capacity, he was involved or in charge of all the negotiations leading up to the adoption of the euro, from the definition of the scenario for the introduction of the single currency (Madrid 1995), the legal framework for the euro, the Stability and Growth Pact (Amsterdam 1997), and the external aspects of the euro, to the design of the coins. In 1991, he was a visiting fellow at the U.S. Federal Reserve Board in Washington, D.C.

Keith Crane, Senior Economist, RAND Corporation

Dr. Crane is a Senior Economist at the RAND Corporation where he works on issues pertaining to international trade, the transition economies of Eastern Europe and the Commonwealth of Independent States, China, the Middle East and Iraq, and post-conflict societies. In the autumn of 2003, Dr. Crane was on loan to the Coalition Provision Authority in Iraq as an advisor on economic policy. Before rejoining RAND in February 2002, Dr. Crane was Chief Operating Officer and Director of Research at PlanEcon, Inc., a Washington, D.C.-based research and consulting firm focusing on Central and Eastern Europe and the former Soviet republics. In his capacity as Director of Research, he was responsible for PlanEcon’s forecasts and consulting and had special responsibility for PlanEcon’s East European automotive service. During his tenure at PlanEcon, Dr. Crane provided analysis and economic forecasts used in over 100 major investments in the region. Dr. Crane also writes extensively on transition issues and international economics in policy and academic journals. Dr. Crane received his Ph.D. in economics from Indiana University in 1983. He was an Adjunct Professor in the Department of Economics at Georgetown University in 2001–2002 and in the George Mason University public policy program between 1998 and 2000. He has served as a faculty member of the RAND-UCLA Center for the Study of Soviet International Behavior and as a Fulbright Professor at the Central School of Planning and Statistics in Warsaw, Poland.

James F. Dobbins, Director, International Security and Defense Policy Center, RAND Corporation

Ambassador Dobbins directs RAND’s International Security and Defense Policy Center. He has held State Department and White House posts including Assistant Secretary of State for Europe, Special Assistant to the President for the Western Hemisphere, Special Adviser to the President and Secretary of State for the Balkans, and Ambassador to the European Community. He has handled a variety of crisis management assignments as the Clinton Administration’s special envoy for Somalia, Haiti, Bosnia, and Kosovo, and the Bush Administration’s first special envoy for Afghanistan. He is principal author of the two-volume RAND History of Nation Building.

In the wake of September 11, 2001, Ambassador Dobbins was designated as the Bush Administration’s representative to the Afghan opposition. Ambassador Dobbins helped organize and then represented the United States at the Bonn Conference where a new Afghan government was formed. On December 16, 2001, he raised the flag over the newly reopened U.S. Embassy.

Earlier in his State Department career, Mr. Dobbins served twice as Deputy Assistant Secretary of State for Europe, as Deputy Chief of Mission in Germany, and as Acting Assistant Secretary for Europe. Mr. Dobbins graduated from the Georgetown School of Foreign Service and served three years in the U.S. Navy.

L. Patrick Hassey, Chairman, President and Chief Executive Officer, Allegheny Technologies, Incorporated

L. Patrick Hassey is Chairman, President and Chief Executive Officer of Allegheny Technologies, Inc. He became President and Chief Executive Officer on October 1, 2003. Mr. Hassey was elected Chairman on May 6, 2004. Mr. Hassey has 35 years of broad international experience in metals manufacturing, engineered products, marketing, and sales. He was Executive Vice-President and a member of the corporate executive committee at Alcoa, Inc., at the time of his early retirement in February 2003. Prior to becoming President and CEO of Allegheny Technologies, Mr. Hassey had been working as an outside management consultant to ATI executive management. Mr. Hassey is a graduate of California State University at Long Beach and attended the University of Southern California MBA Program.

Gary V. Litman, Vice President for Europe and Eurasia, the U.S. Chamber of Commerce

Gary V. Litman is the current Vice President for Europe and Eurasia at the Chamber of Commerce of the United States, where he is responsible for developing and implementing the regional trade policy agenda of the Chamber, managing the Chamber's office in Brussels, assisting member companies in trade and investment in the region, and providing member companies with relevant business advocacy services in the United States, European Union and the Eurasian transitional markets. Prior to assuming his current position, Mr. Litman worked as an intellectual property specialist in a patent law firm in Arlington, Virginia, and later was an intern at the largest French international arbitration and litigation law firm of S. G. Archibald in Paris, France. Upon graduation from the National Law Center, he joined as an associate the Law Offices of Stewart and Stewart in Washington, D.C., where he worked for the firm's international business and investment division, advising corporate clients on regulations and investment opportunities abroad. Mr. Litman is a member of the Maryland and District of Columbia bars and has authored several legal publications on various aspects of international business. He has also rendered technical consulting services to the World Bank on energy projects in Central Asia. Previously, he worked as a research fellow at the National Institute for Non-Ferrous Metals in Moscow.

Mr. Litman holds the degrees of Master of Science in Chemical Engineering from the Moscow Steel and Alloys Institute (1983), Master of Arts in Foreign Languages from the Moscow Institute of Foreign Languages (1985) and Juris Doctor from the National Law Center of the George Washington University in Washington, District of Columbia (1992). At the National Law Center, he received the Jacob Burns scholarship (1990), Dupont Scholarship for achievements in intellectual property studies (1992), and other awards. He also served on the editorial staff of The George Washington Journal of International Law and Economics (1991–1992).

Attila Molnar, President and Chief Executive Officer, Bayer Corporation

Dr. Attila Molnar has been President and Chief Executive Officer of Bayer Corporation and Senior Bayer Representative for the United States and Canada since July 1, 2002. Since joining the Bayer Corporation in 1978, Dr. Molnar has held numerous positions both in the United States and in Europe. In 1999, Dr. Molnar was named to the Board of Management by Bayer's Supervisory Board at the corporate headquarter in Pittsburgh, Pennsylvania. Previously, he served appointments as General Manager of the Organic Chemicals (now Basic and Fine Chemicals) Business Group (Pittsburgh, 1996–1999), Chairman of the Quality Management Steering Committee (Leverkusen, 1992–1996), head of global manufacturing for the Coating and Special Raw Materials Business Group (Leverkusen, 1990–1992), Director of U.S. Polyurethanes Manufacturing (Pittsburgh, 1988–1990), Regional Production Manager for Polyurethanes and Coating Raw Materials (Baytown, Texas, 1986–1988), and Manager of the TDI facility (Brunsbüttel, Germany, 1983–1986). Dr. Molnar obtained his doctorate in chemistry from Erlangen University, Germany (1978).

Paul H. O'Neill, former Secretary of the United States Treasury and former CEO, Alcoa

Paul H. O'Neill was the 72nd Secretary of the U.S. Treasury, serving from 2001 to 2002. Mr. O'Neill was chairman and CEO of Alcoa from 1987 to 1999, and retired as chairman at the end of 2000. Prior to joining Alcoa, Mr. O'Neill was president of International Paper Company from 1985 to 1987, where he was vice president from 1977 to 1985. He worked as a computer systems analyst with the U.S. Veterans Administration from 1961 to 1966 and served on the staff of the U.S. Office of Management and Budget from 1967 to 1977. Mr. O'Neill was deputy director of OMB from 1974 to 1977. He holds a bachelor's degree in Economics from Fresno State College in California and a master's degree in Public Administration from Indiana University.

William H. Overholt, Asia Policy Chair, RAND Corporation

William H. Overholt holds the Asia Policy Research Chair and is Director of the Center for Asia Pacific Policy at RAND's Santa Monica headquarters. Before coming to RAND, Dr. Overholt was a Senior Fellow at Harvard University. He previously spent 21 years running research teams for investment banks, including 16 years in Hong Kong. During this time, he served as Head of Strategy and Economics at Nomura's regional headquarters in Hong Kong (1998–2001), and as Managing Director and Head of Research at Bank Boston's regional headquarters in Singapore. Dr. Overholt spent over 18 years at Bankers Trust, running a country risk team in New York (1980–1984) and then serving as a regional strategist and Asia research head based in Hong Kong. From 1971 to 1979, Dr. Overholt directed planning studies at the Hudson Institute for the U.S. Department of Defense, Department of State, National Security Council, National Aeronautics and Space Administration, and Council on International Economic Policy. As Director of Hudson Research Services, he also conducted strategic planning for corporations. Dr. Overholt is the author of five books, including "The Rise of China" (W.W. Norton, 1993), which won the Mainichi News/Asian Affairs Research Center Special Book Prize. He received his B.A. (magna cum laude, 1968) from Harvard and his Master of Philosophy (1970) and Ph.D. (1972) from Yale.

David K. Richards, Private Investor and Advisory Board Member, RAND Health and RAND Center for Middle East Public Policy

David Richards has been a private investor since 1991. Throughout his career, Mr. Richards has held numerous posts in the financial services and investment banking industry. Prior to his current position, he served as Vice Chairman of Primecap Management in Pasadena (1985–1991) and as a Senior Vice President for the Capital Research and Management Company (Capital Group) in Los Angeles (1973–1985). Before joining the Capital Group, Mr. Richards was a Partner at H.C. Wainwright & Co. in New York City from 1971 to 1973. Currently, Mr. Richards also serves as a member of the Pacific Council on International Policy in Los Angeles. He holds an A.B. (cum laude) and an MBA from Harvard University, where he serves on the Dean's Council of the Faculty of Arts and Sciences, the Dean's Council of the John F. Kennedy School of Government, and the Executive Committee of the Committee for University Resources. Mr. Richards also holds a B.A. and M.A. from Wadham College, Oxford, England, where he is a Foundation Fellow.

James E. Rohr, Chairman and Chief Executive Officer, The PNC Financial Services Group

James E. Rohr is Chairman and CEO of the PNC Financial Services Group, one of the largest diversified financial services companies in the United States, a position he has held since 2000. Mr. Rohr has been a part of the PNC Group since 1972, holding numerous posts including: Chief Operating Officer (1998–2000), President (1992–2000), Director (1990–present), and Vice-Chairman (1989–1990). Previously, he served PNC in a variety of marketing and management responsibilities in several Corporate Banking areas, including lending, treasury management services and merchant banking. Currently, Mr. Rohr is also a director of Allegheny Technologies, Inc. and serves on the RAND Board of Trustees. He is a past chair of the Pennsylvania Business Roundtable and is involved with other industry groups, including the International Monetary Conference and The Financial Services Roundtable. He is also director and former chair of BITS, the technology group for The Financial Services Roundtable. In addition, Mr. Rohr serves on a number of civic, cultural, and educational organizations. He is chair of The Pittsburgh Cultural Trust, and board member and former chair of The Pittsburgh Council of the Boy Scouts of America. He is a director of Carnegie Mellon University, the Allegheny Conference on Community Development, and a former director of United Way of Allegheny County.

Alberta Sbragia, Director of the European Union Center and the Center for West European Studies, University of Pittsburgh

Dr. Alberta Sbragia is the UCIS Research Professor of Political Science and the Director of the Center for West European Studies and the European Union Center at the University of Pittsburgh. She has held positions as Chair of the European Union Studies Association in the United States, program co-Chair of the Annual Meeting of the American Political Science Association, and Chair of the Conference Group of Italian Politics and Society. Dr. Sbragia currently serves on the editorial board of numerous scholarly journals published in Canada, the United States, and Europe. She is also a member of the Scientific Advisory Board of The Network of Excellence CONNEX (Connecting Excellence on European Governance) on "Efficient and Democratic Governance in a Multi-Level Europe." Dr. Sbragia is the author and editor of numerous publications concerning European economic issues, financial institutions, and policymaking decisions.

James A. Thomson, President and Chief Executive Officer, RAND Corporation

Jim Thomson has been RAND's president and chief executive officer since August 1989. With annual revenues of over $200 million and a staff of 1,600, RAND's research programs address a broad range of domestic, international, and national security issues. A member of the RAND staff since 1981, Dr. Thomson has served the institution in a variety of roles, including that of director of RAND's research programs in national security, foreign policy, defense policy, and arms control; vice president in charge of the Project AIR FORCE division; and executive vice president. From 1977 to January 1981, Dr. Thomson was a member of the National Security Council staff at the White House, where he was primarily responsible for defense and arms control matters related to Europe. He was on the staff of the Office of the Secretary of Defense, 1974–1977.

Dr. Thomson is a member of the Council on Foreign Relations, New York; the International Institute for Strategic Studies, London; and the board of the Los Angeles World Affairs Council. He is a director of AK Steel Corporation, Encysive Pharmaceuticals, and Object Reservoir.

Dr. Thomson holds a B.S. in physics from the University of New Hampshire (1967) and an M.S. and Ph.D. in physics from Purdue University. He was a postdoctoral research associate in physics (1972) and did basic research in experimental nuclear physics (1972–1974) at the University of Wisconsin.

Norbert Walter, Chief Economist and Chief Executive Officer, Deutsche Bank Group

Norbert Walter is Chief Economist of Deutsche Bank Group and CEO of Deutsche Bank Research. Before his current position, Dr. Walter was professor and director at the renowned Kiel Institute for World Economics and was a John J. McCloy Distinguished Research Fellow at the American Institute for Contemporary Studies at the Johns Hopkins University in Washington, D.C. (1986–1987). He holds a Ph.D. in Economics from the Johann-Wolfgang-Goethe University, Frankfurt/Main.

As Chief Economist of Deutsche Bank Group, Norbert Walter is responsible for a globally integrated approach in economic research. He manages Deutsche Bank Research, Deutsche Bank's think tank, which covers a wide spectrum of issues ranging from economic forecasting to country rating and sector analysis. Services are rendered to the Bank's board, staff, customers and the general public. In addition to holding these responsibilities at Deutsche Bank, Professor Walter is a valued adviser for politicians, among them the European Parliament. Since October 2002, he has been a member of the inter-institutional monitoring group (appointed by the European Parliament, the Council and the European Commission) for securities markets.

Dr. J. Onno de Beaufort Wijnholds, Permanent Representative of the European Central Bank in Washington, D.C.

J. Onno de Beaufort Wijnholds is the Permanent Representative of the Central Bank in Washington, D.C., and Observer at the IMF, a position he assumed in 2003. Before his current post, Dr. de Beaufort Wijnholds served for ten years as Executive Director of the IMF, representing the Netherlands and 11 other nations, mainly in Eastern Europe. From 1968 until 1987, he held numerous positions at the Central Bank of the Netherlands (De Nederlandsche

Bank), ultimately rising to the post of Deputy Executive Director where he was responsible for monetary policy and financial markets. During this time, Dr. de Beaufort Wijnholds also served as Alternate Executive Director at the IMF (1985–1987) and held a two-year secondment to the World Bank and the IMF in the 1970s. Additionally, he has held positions as Professor of Money and Banking at the University of Groningen in the Netherlands (1992–1994), Alternate Member of the Social Economic Council of the Netherlands (1987–1994), and Member of the National Council on Development Co-operation (1980–1984). Dr. de Beaufort Wijnholds has published extensively on financial and economics issues, and he holds a Masters Degree in Economics (1968) and a Ph.D. in Economics from the University of Amsterdam (1977).