

Implications of a Higher Euro: Trends, Benefits and Drawbacks*

Christopher Hsu

Rochester Institute of Technology

1. In the beginning...

Since its inception on January 1, 1999, the European Monetary Unit, also known simply as the “euro,” has fluctuated significantly while following the economic conditions present in the European Union and elsewhere in the world. The rising and falling of the price of the euro in contrast to other currencies can have certain benefits and drawbacks for other countries. The most noteworthy of these countries that can be affected is the United States.

The fluctuations in the price of the euro began since its inception. In the 1970's, Europe was suffering from economic instability which eventually turned into a crisis situation. Many European countries were trying to fight off unemployment and a lagging economy. European leaders agreed that a “currency snake” needed to be created which would tie together European currencies.¹

This was done primarily to stabilize foreign exchange rates and high inflation rates. The system was implemented in 1979 and the European Monetary System was born. The European Currency Unit, predecessor to the euro, was formed at the same time and immediately its price was pushed down by the overpowering dollar and this caused problems for weaker European countries.

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¹ <http://www.infoplease.com/ce6/history/A0817895.html>

In the 1980's the dollar strengthened considerably and interest rates in Europe were very high as a result. In 1986, world leaders met at the Plaza hotel in New York City and agreed to lower the value of the dollar. If the dollar was not weakened, the economic problems of weaker European countries would have worsened. Over a period of five years, the ECU continued to rise.

2. Monetary Unification

Several factors led to the creation of a single currency and a more unified European community. The fall of the Soviet Union, differing economic policies, and conditions of European nations, in particular a reunified Germany and the withdrawal of Britain from the system, caused some concern among the European nations. When the member states of the European Community met in the Dutch town of Maastricht in December 1991, they agreed to the creation of a single currency. The purpose of this initiative was to advance towards a true monetary and economic union.

Several conditions had to be met by nations that wanted to join the European Union. These included targets for inflation, interest rates and budget deficits. These items were meant to place controls on the economy and to regulate the value of the currency and preserve its stability. Also, it would be used as the median for all countries to follow so that the implementation of a single currency would be streamlined. A country with different target values would have problems integrating into the European Union and would be rebuffed from joining until these conditions can be met.

The European Central Bank was established in Frankfurt in 1998. This set the stage for the introduction of a single currency and the consolidation of the European Union's monetary and economic policies. The purpose of the bank was to set interest rates and maintain price stability within the Eurozone, which is defined as the countries in the European Union who have adopted the euro. In 1999 the euro was introduced into circulation as electronic currency for use with banks, stock markets, foreign exchange dealers, etc. The common monetary policy also was put into effect for all countries in the Eurozone. In

January 2002, euro coins and notes were distributed and all formerly-used currency was made obsolete.

3. The Rising Euro – Causes, Trends

Since it was implemented in 2002, the euro has been gaining value against the dollar, which had been the strongest and most stable currency in the world. Nevertheless, since the euro was introduced in 1999, both currencies have been riding erratic exchange rates (See Appendix). In January 1999, the dollar-euro rates were at 1.18/0.85. In late 2000 the dollar-euro rates were at 1.19/0.84. During the period of mid-to-late October 2003, the dollar regained some ground against the euro at 1.08/0.93 because the U.S. started showing signs of an economic recovery. In February of 2004, however, the dollar went down against the euro to a value of approximately 1.27/0.79. But in May 2004, the dollar, again, gave signs of gaining some momentum against the euro at 1.19/0.84.

What causes these fluctuations in currency value? The value of a currency is affected by many factors. One such factor is the inflation of a country. For example, a strong dollar would feed on a country's inflation and make dollar-priced imports expensive while a weaker dollar would have the opposite effect and make imports less expensive.

During America's economic boom in the late 1990's and early 2000's, demand for American products kept the value of the dollar strong. It was strong even during recession as well and was most likely overvalued. The value of the dollar is currently sinking and this is partially attributed to the current-account deficit. A current-account deficit occurs when export returns and inflows are worth less than imports and outflows.²

If there is a gradual fall in the value of the dollar, it could bring about a worldwide economic recovery. If it takes a sudden plunge, it would hurt economies rather than bring about economic prosperity. These same influences can affect the price of the euro as well. Both these currencies, and any currency for that matter, is also affected directly by fluctuating exchange rates, and is also affected by inflation, economic and monetary

² Pennant-Rea, Rupert, *The Pocket Economist*, (Cambridge University Press), 1984.

policies, market conditions, business decisions, trade agreements, investing and investor confidence (this includes bond and stock trading), consumer confidence and many other factors including international stability.

Several cases of the decreasing value of the dollar will be shown along with the reasons behind the depreciation in value. One such example is the American technology boom before 2002. The growth of the economy brought by the advent of new technology led to foreign investments which kept the dollar strong. However, during 2002 the U.S. equities and bond markets did not attract strong foreign investment as a result of major corporate scandals in many prominent corporations, particularly Enron, MCI WorldCom and ImClone.

A report released by the Department of Commerce states that in April 2003, the U.S. had been importing more than exporting³ and thus increased the U.S. trade deficit by \$200 million. Imports were increased by \$900 million to \$123.9 billion while exports increased to \$82 billion bringing the deficit to \$46.9 billion overall. Large foreign sales of U.S. capital goods were the catalyst for the rise in U.S. exports. During this month unemployment increased from 5.8% to 6.0%. Here it can be seen that as imports increase, there is also an increase in unemployment. At this time, the dollar began to decrease in value.

According to data released by the Bureau of Labor Statistics, unemployment in the U.S. increased during the period of April through June 2003.⁴ During this same period total imports also increased. Productivity by major sectors of the industry during the first quarter of 2003 increased only 2.1% from the previous quarter value of 1.7%. This again shows that the more a country imports, the more the consumer will have to pay for higher-priced products, thus potentially lowering living standards, forcing businesses to cut back and even pushing some workers into unemployment. At this time one euro was equal to approximately \$1.05 U.S.

A trade report released on 11 August, 2003 by the Department of

³ <http://hongkong.usconsulate.gov/usinfo/statis/ft/2003/05.htm>

⁴ <http://data.bls.gov/cgi-bin/survey/most?bls> (select Unemployment)

Commerce shows that the trade deficit for the month of June fell by \$1.9 billion as exports increased to \$84.6 billion and imports were virtually unchanged.⁵ The export value registered was the highest increase in three years. The increase in these exports was brought by the devaluation of the dollar against the euro. During the following months the unemployment rates decreased from 6.4% to 6.2% and 6.1%.⁶ Productivity for the second quarter of 2003 increased nearly 6.8% from a previous increase of only 2.1%. Also during this period, the U.S. import price index dropped -0.5%. This further shows that as the dollar decreases in value, different aspects of the U.S. economy are thrown into a state of revival.

In June-July 2003, the dollar-euro rates were 1.18/0.87. here had been a substantial downward fluctuation from the period December-April 2003 when the dollar-euro rates had been 1.09/0.94. It seemed evident that the dollar had gained ground against the euro. But economic data released during that period were not particularly encouraging for the American economy. Even though inflation continued to be moderate, rising only 0.1 percent, rising prices in energy and food and little change in industrial production seemed to indicate some evidence of deflation.⁷ But, the rise of the dollar against the euro made the dollar again the stronger currency. However, several weak earnings reports from high-tech companies such as Motorola and Lucent Technologies deflated the optimism on Wall Street and the euro eventually recovered and got the upper hand over the dollar. This is evidence that the outcome of business performance can also affect the value of a currency.

During the months of August and September 2003, there was indication of a strong recovery by the American economy and the dollar pushed higher. Economists predicted that the dollar would be at parity with the euro but currency markets shifted their attention from economic growth rates to the huge American current-account deficit. A large current-account deficit brings no confidence to an economy. If the American economy continues to grow faster than those of Europe, Japan, and other world trading partners, the potential for a growth in the deficit will

⁵ <http://hongkong.usconsulate.gov/usinfo/statis/ft/2003/06.htm>

⁶ <http://data.bls.gov/cgi-bin/survey/most?b1s> (select productivity)

⁷ http://quickstart.clari.net/qs_se/webnews/wecd/dq/Qforex-europe.R2WF_DIF.html

increase. This brought the dollar down further and proved that there are yet several forces that can affect the value of a currency.

On 15 October 2003 the Federal Reserve released a report⁸ stating that the pace of economic expansion had picked up due to consumer spending and manufacturing. Consumer spending was increased due to low interest rates and tax cuts, which put extra spending money in consumers' pockets. Inflationary pressures remained weak and there appeared to be hope for a recovery of the depressed job market which hit its highest level in a decade during the past three years. At this point in time, the dollar was valued at 0.85€. Two weeks before, the dollar was worth 0.84€. This is evidence that when the economy begins to recover the value of the dollar increases.

There are some indications that while the dollar seems to be unaffected by reports of performance of some sectors of the economy, it is instead affected by information related to employment. A good example would be what happened in the United States on 20 May 2004, when the dollar was higher against the euro after the release of positive employment data, even though manufacturing reports were negative.

Moreover, the Treasury bonds market is greatly affected by the decline in the value of the dollar. Foreign investment decreased due to the low interest rates. With the low interest rates on bonds, yields increased dramatically. This can be a potential forecast of economic recovery, but high yields could lead to a potential inflation period. Interest rates may also increase over this period as well.

The continuing trend is now discernible and it can be assumed that as the value of the dollar decreases and the value of the euro continues to increase, the amount of products the U.S. exports will increase as well. In the long run this will help American companies become more competitive and increase exposure overseas. This will not only benefit U.S. exporters immediately, but will also be beneficial to European businesses and consumers. Since the dollar is lower than the euro, there is room for Europeans to take advantage of the currency exchange rate.

⁸ Beige Book - <http://www.federalreserve.gov/FOMC/BeigeBook/2003/20031015/Default.htm>

Goods imported to the Eurozone will be cheaper and will ultimately help to drive down inflation. For example, if a European company wants to buy raw material for automobiles at the price of \$400,000 U.S. and if the dollar is valued at 0.85€, the European company would pay 340,000 € for products worth \$400,000 in the United States.

International stability is a concern for the financial markets and the value of currencies. The value of the dollar and euro can be affected by the situations in the Middle East, and in most cases conflict will drive the euro higher. However, the dollar has shown some resilience against unpleasant news. Oil also has an effect on the value of currency. Most countries today pay for oil and most other commodities with the dollar. This will decrease some countries' oil bills and bring about energy price cuts. In the long-term this will eventually force oil exporters to hike the price of oil. In May 2004, the price of oil per barrel approached and easily broke the \$40-per-barrel mark, and this was mostly due to the situations in the Middle East. OPEC has stated that they need higher prices for their dollar-denominated sales to make up for the currency's lower purchasing power.⁹

Oil prices will have to drop eventually or OPEC will be losing clients due to the simple fact that people will not be able to pay for higher-priced gasoline.

4. So Who Benefits?

The answer to the question "Who will benefit from the higher value of the euro" is: the United States. The higher value of the euro will give the United States several long-term benefits which include increased exports and an economic revival. In the future, it can be expected that more foreign investment in U.S. companies will occur. The lower dollar will be welcomed by the manufacturing sector and other U.S.-based businesses such as the pharmaceutical sector. For example, as of October 2003, Pfizer, one of the pharmaceutical industry's biggest players, received 38% (\$32.3 billion) of its revenue from overseas, and it will more than likely continue to benefit from a cheaper dollar.

The lower dollar cuts consumer purchasing power for foreign-made

⁹ <http://www.forbes.com/markets/newswire/2004/01/05/rtr1197734.html>

products such as cars and clothing, and improves the position for American-made goods. Another aspect of the American economy that will benefit is the job market. When manufacturers are able to profit more and gain ground due to the weaker dollar, there will be companies who will have the ability to hire more people than in previous years.¹⁰

A good example is IBM. They announced in their 2003 third-quarter earnings results that they were beginning to see signs of a stabilizing economy and expected to fill 10,000 new positions within the next year.¹¹

Currency exchange businesses will welcome European tourists and their business. For example, Newark Liberty International Airport is a major hub for international travel and the advent of the euro is beneficial to business. This will benefit travelling Europeans as well. They will be able to exchange their euros for dollars and will be able to receive more dollars per euro due to the higher value of the euro. An influx of tourism will result and help boost the U.S. economy.

5. Drawbacks of the Lower Greenback

However, the lower value of the dollar could bring negative effects. While it is necessary to try to bring deficits into balance, there is a risk of losing precious Asian investments in U.S. Treasury bonds which can drive long-term American interest rates higher during a potential recovery period. As a result of fewer Asian investments, bond yields will rise sharply and Treasury bonds will decrease in value.¹² Asian currencies do not benefit from the lower dollar because intervention will be required to keep their currencies from exploding in value since countries such as Japan rely heavily on exports. Japan, for example, will intervene by using yen from its currency reserves to keep the yen down because of its overwhelmingly export-based economy. Other foreign investors will shift out of the bond market and will reduce the value of their stock holdings. On a larger scale, loss of foreign investments will make it more difficult to finance the U.S.'s immense budget deficit.

¹⁰ <http://cbs.marketwatch.com/news/story.asp?guid={CEDD1FDD-9E84-4E21-B488-D9EC9F8FF33D}&siteid=mktw&dist=&archive=true>

¹¹ <http://www.ibm.com/investor/3q03/3q03earnings.phtml>

¹² *The Economist*, 25 September, 2003.

U.S. consumers would feel the impact as well, since interest rates are determined partially by U.S. government debt yields from Treasury bills.¹³ Higher interest rates will also harm corporate America which at this point in time is experiencing a recovery. Another negative effect of the lower dollar is that imports will be more expensive, but on the other hand, consumers will begin to purchase products from U.S.-based companies. This is what is necessary to make an attempt at making the U.S. trade account as balanced as possible.

These negative effects will undoubtedly affect Europeans. If the dollar continues to drop, it will hurt the European trade balance and domestic sales as well. There will be more imports than exports and the standard of living in Europe will suffer. Exports in the first quarter of 2003 were down -0.6% in the Eurozone and -0.1% in the entire EU. Imports were up 0.6% in both areas.¹⁴ During the period of January 2003 through May 2003 the euro appreciated 10% and it became a major deflationary shock which resulted in negative GDP growth in the second quarter (-0.1%) and postponed European economic recovery until the fourth quarter. However, the forecast for the Eurozone 2003 fourth quarter GDP was +0.6% and the forecasts for the Eurozone 2004 GDP between the first, second, and third quarters are between 0.3% and 0.7%¹⁵. This is a direct effect of the lower dollar. Unemployment will rise as pressure builds on workers to accept lower wages to stay competitive.¹⁶

European tourism has been negatively affected because of the lower dollar. For example, a tourist from the U.S. wishes to exchange \$100 for euros. If the current value of the dollar is 0.86€ the tourist will then receive only 86€ for \$100. In the mindset of the tourist, this is less money than he came in with and will therefore have less to spend. This will ultimately dissuade many tourists from going to Europe. Some external factors that also hurt European tourism are the aftermath of the 11 September 2001 terrorist attacks and the war in Iraq.

¹³ Scherer, Ron. *Christian Science Monitor*. July 8, 2002.

¹⁴ http://www.ueitalia2003.it/EN/Notizie/economiaFinanza/Notizia_07101850614.htm

¹⁵ <http://www.eupolitix.com/EN/News/200405/41588b84-f5e8-4de6-998d-bff0e04ff7a7.htm>

¹⁶ http://www.epinet.org/content.cfm/webfeatures_viewpoints_helsinkispeech

6. European Benefits

There are some benefits that Europe can experience. Europeans can benefit from an influx of capital from foreign investments if the dollar continues to drag lower. In 2002 capital inflows of \$110 billion were recorded as compared with capital outflows of \$10 billion in 2001. The weaker dollar will force foreign markets to shift out of U.S. bonds, and it is likely that they will reallocate and invest funds in the Eurozone. This will potentially bring economic revival to Europe which has been suffering from economic stagnation like the U.S.

In 2000, Iraq began accepting only euros for their oil and recently Iran has been considering it as well. If that is the case, the euro might as well be considered a top choice as a reserve currency in the world. OPEC countries would be getting more value for their oil and subsidies would be forwarded to the Eurozone rather than the U.S.¹⁷ With the enlargement of the European Union to twenty-five member states, the oil consumption in the Union will reach 33% of world oil production. To mitigate currency risks the Union will pressure OPEC to trade oil in euros. However, it is purely speculative whether OPEC nations will switch to euros because most OPEC nations at present trade under the dollar.

7. The Future in a Nutshell

The future is unpredictable but can be ascertained by today's trends. The lower value of the dollar will undoubtedly help the U.S. to export more goods, cut back on the current-account deficit and hopefully decrease the amount of overall deficit. The increase of exports will help stimulate the economy, provide more jobs and attract future foreign investments into an economy which is steadily recovering. However, there are drawbacks which may hurt the U.S. if the dollar were to continue receding in value.

If the euro continues to become stronger, foreign investments are more likely to flow into the Eurozone rather than into U.S. interests. Imports to the U.S. would cost consumers more and the standards of

¹⁷ www.feasta.org/documents/papers/oil1.htm

living will decrease. But this can be offset if American products make a stronger appearance on the market. If the conversion of dollar assets into euro assets becomes more widespread, the markets will be flooded with U.S. currency and it will further drop in value. U.S. property and stock holdings will decrease in value substantially and inflation will result. Oil is another major concern for the euro in the long-term. If OPEC countries decide to convert dollar assets into euros it would be the dollar's downfall and euro-based OPEC countries would receive the benefits. With oil prices being as high as they are now, it could also affect the values of the dollar and the euro. As the U.S. deficit approaches 5% of GDP, the devaluation of the dollar will try to buffer losses as much as possible, but it will not be able to do so for an extended period of time without governmental intervention.

Currently the U.S. is hoping to achieve currency flexibility and currency intervention. The ideal situation would be lower-valued Asian currencies to support their immense export market, and Asian central banks intervening and supporting the U.S. Treasury market. There is some speculation that the U.S. dollar might crash if it drops too far. But many experts believe that the dollar will not crash, due to several factors. First, the U.S. dollar is not as overvalued as it appears, judging solely on the deficits of this country. Second, the U.S. is still the world's most productive country. Evidence shows that productivity and output have increased dramatically. In the second quarter of 2003, non-farm business production and business production have increased 6.8% and 7.2%, respectively, from the previous quarter, while manufacturing has only decreased slightly. Third, the dollar will not crash because the rest of the world is still too weak economically to accept a large U.S. dollar correction (fall in value). A large correction would imply bringing the U.S. dollar to an even lower value against the euro, which will also bring the yen even lower, which is an unrealistic expectation.¹⁸ For these reasons, many monetarists believe that the dollar will not crash.

The value of currencies is a delicate balance and there are many factors which can affect it. To bring the dollar and the euro to a more

¹⁸ Roach, Steven. Morgan Stanley Weekly International Briefing, 19 Oct. , 2003.

realistic exchange level, intervention may be necessary by the U.S. and the Eurozone governments. Also, Asian governments must share the responsibilities to promote currency stability. This collaborative enterprise between the U.S., the European Union and Asia is of paramount importance to bring currency stability, promote economic growth and avoid global financial crisis. A balance between the dollar and the euro and other currencies must be achieved to avoid artificial manipulation of currency values.

APPENDIX

Euro vs. Dollar - Exchange Rates since Inception			
Date	USD	Date	EUR
1/4/1999	1.18	3/16/1999	1.09
1/5/1999	1.18	3/17/1999	1.10
1/6/1999	1.17	3/18/1999	1.10
1/7/1999	1.16	3/19/1999	1.09
1/8/1999	1.17	3/22/1999	1.09
1/11/1999	1.16	3/23/1999	1.09
1/12/1999	1.15	3/24/1999	1.09
1/13/1999	1.17	3/25/1999	1.09
1/14/1999	1.17	3/26/1999	1.07
1/15/1999	1.16	3/29/1999	1.07
1/18/1999	1.16	3/30/1999	1.07
1/19/1999	1.16	3/31/1999	1.07
1/20/1999	1.16	4/1/1999	1.08
1/21/1999	1.16	4/2/1999	1.08
1/22/1999	1.16	4/5/1999	1.08
1/25/1999	1.16	4/6/1999	1.07
1/26/1999	1.16	4/7/1999	1.08
1/27/1999	1.15	4/8/1999	1.08
1/28/1999	1.14	4/9/1999	1.08
1/29/1999	1.14	4/12/1999	1.09
2/1/1999	1.13	4/13/1999	1.08
2/2/1999	1.13	4/14/1999	1.08
2/3/1999	1.13	4/15/1999	1.08
2/4/1999	1.13	4/16/1999	1.07
2/5/1999	1.13	4/19/1999	1.06
2/8/1999	1.12	4/20/1999	1.06
2/9/1999	1.13	4/21/1999	1.06
2/10/1999	1.13	4/22/1999	1.06
2/11/1999	1.13	4/23/1999	1.06
2/12/1999	1.12	4/26/1999	1.06
2/15/1999	1.12	4/27/1999	1.06
2/16/1999	1.12	4/28/1999	1.07
2/17/1999	1.13	4/29/1999	1.06
2/18/1999	1.12	4/30/1999	1.06
2/19/1999	1.12	5/3/1999	1.06
2/22/1999	1.10	5/4/1999	1.06
2/23/1999	1.10	5/5/1999	1.07
2/24/1999	1.10	5/6/1999	1.08
2/25/1999	1.10	5/7/1999	1.08
3/1/1999	1.10	5/10/1999	1.07
3/2/1999	1.09	5/12/1999	1.06
3/3/1999	1.09	5/13/1999	1.06
3/4/1999	1.09	5/14/1999	1.07
3/5/1999	1.08	5/17/1999	1.07
3/8/1999	1.09	5/18/1999	1.07
3/9/1999	1.09	5/19/1999	1.06
3/10/1999	1.10	5/20/1999	1.06
3/11/1999	1.09	5/21/1999	1.06
3/12/1999	1.09	5/24/1999	1.06
3/15/1999	1.09	5/25/1999	1.06

continues

Euro vs. Dollar - Exchange Rates since Inception		continued	
Date	USD	Date	EUR
5/26/1999	1.05	8/5/1999	1.08
5/27/1999	1.05	8/6/1999	1.07
5/28/1999	1.05	8/9/1999	1.07
5/31/1999	1.05	8/10/1999	1.07
6/1/1999	1.04	8/11/1999	1.07
6/2/1999	1.04	8/12/1999	1.06
6/3/1999	1.04	8/13/1999	1.07
6/4/1999	1.03	8/16/1999	1.06
6/7/1999	1.03	8/17/1999	1.05
6/8/1999	1.04	8/18/1999	1.05
6/9/1999	1.05	8/19/1999	1.05
6/10/1999	1.05	8/20/1999	1.07
6/11/1999	1.05	8/23/1999	1.06
6/14/1999	1.04	8/24/1999	1.05
6/15/1999	1.04	8/25/1999	1.04
6/16/1999	1.03	8/26/1999	1.05
6/17/1999	1.03	8/27/1999	1.05
6/18/1999	1.04	8/30/1999	1.05
6/21/1999	1.03	8/31/1999	1.06
6/22/1999	1.03	9/1/1999	1.06
6/23/1999	1.03	9/2/1999	1.07
6/24/1999	1.03	9/3/1999	1.07
6/25/1999	1.04	9/6/1999	1.06
6/28/1999	1.04	9/7/1999	1.06
6/29/1999	1.04	9/8/1999	1.06
6/30/1999	1.03	9/9/1999	1.06
7/1/1999	1.03	9/10/1999	1.05
7/2/1999	1.02	9/13/1999	1.03
7/5/1999	1.02	9/14/1999	1.03
7/6/1999	1.02	9/15/1999	1.04
7/7/1999	1.02	9/16/1999	1.04
7/8/1999	1.02	9/17/1999	1.04
7/9/1999	1.02	9/20/1999	1.04
7/12/1999	1.01	9/21/1999	1.04
7/13/1999	1.02	9/22/1999	1.05
7/14/1999	1.02	9/23/1999	1.04
7/15/1999	1.02	9/24/1999	1.05
7/16/1999	1.02	9/27/1999	1.04
7/19/1999	1.01	9/28/1999	1.05
7/20/1999	1.04	9/29/1999	1.06
7/21/1999	1.05	9/30/1999	1.07
7/22/1999	1.05	10/1/1999	1.07
7/23/1999	1.05	10/4/1999	1.07
7/26/1999	1.07	10/5/1999	1.07
7/27/1999	1.06	10/6/1999	1.07
7/28/1999	1.06	10/7/1999	1.07
7/29/1999	1.07	10/8/1999	1.07
7/30/1999	1.07	10/11/1999	1.06
8/2/1999	1.07	10/12/1999	1.07
8/3/1999	1.06	10/13/1999	1.08
8/4/1999	1.08	10/14/1999	1.08

continues

Date		USD	EUR	Date		USD	EUR
10/15/1999	1.09	1.09	0.92	12/27/1999	1.01	0.99	1.01
10/18/1999	1.09	1.09	0.92	12/28/1999	1.01	0.99	1.01
10/19/1999	1.08	1.08	0.92	12/29/1999	1.01	0.99	1.01
10/20/1999	1.08	1.08	0.93	12/30/1999	1.01	0.99	1.01
10/21/1999	1.08	1.08	0.93	1/3/2000	1.01	0.99	1.01
10/22/1999	1.08	1.08	0.93	1/4/2000	1.03	0.97	1.03
10/25/1999	1.07	1.07	0.94	1/5/2000	1.04	0.96	1.04
10/26/1999	1.06	1.06	0.94	1/6/2000	1.04	0.96	1.04
10/27/1999	1.06	1.06	0.95	1/7/2000	1.03	0.97	1.03
10/28/1999	1.05	1.05	0.95	1/10/2000	1.02	0.98	1.02
10/29/1999	1.05	1.05	0.96	1/11/2000	1.03	0.98	1.03
11/1/1999	1.06	1.06	0.95	1/12/2000	1.03	0.97	1.03
11/2/1999	1.05	1.05	0.95	1/13/2000	1.03	0.97	1.03
11/3/1999	1.05	1.05	0.95	1/14/2000	1.02	0.98	1.02
11/4/1999	1.05	1.05	0.95	1/17/2000	1.01	0.99	1.01
11/5/1999	1.04	1.04	0.96	1/18/2000	1.01	0.99	1.01
11/8/1999	1.04	1.04	0.96	1/19/2000	1.01	0.99	1.01
11/9/1999	1.04	1.04	0.96	1/20/2000	1.01	0.99	1.01
11/10/1999	1.04	1.04	0.96	1/21/2000	1.01	0.99	1.01
11/11/1999	1.04	1.04	0.96	1/24/2000	1.00	1.00	1.00
11/12/1999	1.03	1.03	0.97	1/25/2000	1.00	1.00	1.00
11/15/1999	1.03	1.03	0.97	1/26/2000	1.00	1.00	1.00
11/16/1999	1.03	1.03	0.97	1/27/2000	1.00	1.00	1.00
11/17/1999	1.04	1.04	0.96	1/28/2000	0.98	0.98	1.02
11/18/1999	1.04	1.04	0.96	1/31/2000	0.98	0.98	1.02
11/19/1999	1.03	1.03	0.97	2/1/2000	0.97	0.97	1.03
11/22/1999	1.03	1.03	0.97	2/2/2000	0.97	0.97	1.03
11/23/1999	1.03	1.03	0.97	2/3/2000	0.97	0.97	1.03
11/24/1999	1.02	1.02	0.98	2/4/2000	0.98	0.98	1.02
11/25/1999	1.02	1.02	0.98	2/7/2000	0.98	0.98	1.02
11/26/1999	1.01	1.01	0.99	2/8/2000	0.99	0.99	1.01
11/29/1999	1.01	1.01	0.99	2/9/2000	0.99	0.99	1.01
11/30/1999	1.01	1.01	0.99	2/10/2000	0.99	0.99	1.01
12/1/1999	1.01	1.01	0.99	2/11/2000	0.98	0.98	1.02
12/2/1999	1.01	1.01	0.99	2/14/2000	0.99	0.99	1.01
12/3/1999	1.00	1.00	0.99	2/15/2000	0.98	0.98	1.02
12/6/1999	1.02	1.02	0.98	2/16/2000	0.98	0.98	1.02
12/7/1999	1.02	1.02	0.98	2/17/2000	0.99	0.99	1.01
12/8/1999	1.02	1.02	0.98	2/18/2000	0.99	0.99	1.01
12/9/1999	1.02	1.02	0.98	2/21/2000	0.99	0.99	1.01
12/10/1999	1.01	1.01	0.99	2/22/2000	1.00	1.00	1.00
12/13/1999	1.01	1.01	0.99	2/23/2000	1.01	0.99	1.01
12/14/1999	1.00	1.00	1.00	2/24/2000	0.99	0.99	1.01
12/15/1999	1.00	1.00	1.00	2/25/2000	0.98	0.98	1.02
12/16/1999	1.01	1.01	0.99	2/28/2000	0.96	0.96	1.04
12/17/1999	1.01	1.01	0.99	2/29/2000	0.97	0.97	1.03
12/20/1999	1.01	1.01	0.99	3/1/2000	0.97	0.97	1.03
12/21/1999	1.01	1.01	0.99	3/2/2000	0.97	0.97	1.03
12/22/1999	1.01	1.01	0.99	3/3/2000	0.97	0.97	1.03
12/23/1999	1.01	1.01	0.99	3/6/2000	0.96	0.96	1.04
12/24/1999	1.01	1.01	0.99	3/7/2000	0.96	0.96	1.04

continues

Euro vs. Dollar - Exchange Rates since Inception

continued

Date		USD	EUR	Date		USD	EUR
3/8/2000	0.95	1.05	1.11	5/23/2000	0.91	1.10	1.10
3/9/2000	0.96	1.04	1.04	5/24/2000	0.90	1.11	1.10
3/10/2000	0.96	1.04	1.04	5/25/2000	0.90	1.11	1.10
3/13/2000	0.97	1.03	1.03	5/26/2000	0.91	1.09	1.09
3/14/2000	0.96	1.04	1.04	5/29/2000	0.93	1.08	1.08
3/15/2000	0.96	1.04	1.04	5/30/2000	0.94	1.07	1.07
3/16/2000	0.97	1.03	1.03	5/31/2000	0.93	1.07	1.07
3/17/2000	0.97	1.03	1.03	6/1/2000	0.93	1.07	1.07
3/20/2000	0.97	1.03	1.03	6/2/2000	0.94	1.07	1.07
3/21/2000	0.97	1.03	1.03	6/5/2000	0.94	1.06	1.06
3/22/2000	0.96	1.04	1.04	6/6/2000	0.95	1.05	1.05
3/23/2000	0.97	1.04	1.04	6/7/2000	0.96	1.05	1.05
3/24/2000	0.97	1.03	1.03	6/8/2000	0.97	1.03	1.03
3/27/2000	0.97	1.03	1.03	6/9/2000	0.95	1.05	1.05
3/28/2000	0.96	1.04	1.04	6/12/2000	0.95	1.05	1.05
3/29/2000	0.96	1.05	1.05	6/13/2000	0.96	1.04	1.04
3/30/2000	0.96	1.05	1.05	6/14/2000	0.96	1.04	1.04
3/31/2000	0.96	1.05	1.05	6/15/2000	0.95	1.05	1.05
4/3/2000	0.96	1.05	1.05	6/16/2000	0.96	1.05	1.05
4/4/2000	0.95	1.05	1.05	6/19/2000	0.96	1.04	1.04
4/5/2000	0.97	1.03	1.03	6/20/2000	0.95	1.05	1.05
4/6/2000	0.96	1.04	1.04	6/21/2000	0.95	1.06	1.06
4/7/2000	0.96	1.05	1.05	6/22/2000	0.94	1.06	1.06
4/10/2000	0.96	1.04	1.04	6/23/2000	0.94	1.06	1.06
4/11/2000	0.96	1.04	1.04	6/26/2000	0.93	1.07	1.07
4/12/2000	0.96	1.04	1.04	6/27/2000	0.94	1.06	1.06
4/13/2000	0.95	1.05	1.05	6/28/2000	0.94	1.06	1.06
4/14/2000	0.95	1.05	1.05	6/29/2000	0.95	1.05	1.05
4/17/2000	0.96	1.04	1.04	6/30/2000	0.96	1.05	1.05
4/18/2000	0.95	1.05	1.05	7/3/2000	0.95	1.05	1.05
4/19/2000	0.95	1.06	1.06	7/4/2000	0.95	1.05	1.05
4/20/2000	0.94	1.07	1.07	7/5/2000	0.95	1.05	1.05
4/25/2000	0.93	1.08	1.08	7/6/2000	0.95	1.05	1.05
4/26/2000	0.92	1.09	1.09	7/7/2000	0.95	1.05	1.05
4/27/2000	0.92	1.09	1.09	7/10/2000	0.95	1.05	1.05
4/28/2000	0.91	1.10	1.10	7/11/2000	0.95	1.05	1.05
5/2/2000	0.91	1.10	1.10	7/12/2000	0.95	1.05	1.05
5/3/2000	0.89	1.12	1.12	7/13/2000	0.93	1.07	1.07
5/4/2000	0.89	1.12	1.12	7/14/2000	0.93	1.07	1.07
5/5/2000	0.90	1.11	1.11	7/17/2000	0.94	1.07	1.07
5/8/2000	0.90	1.12	1.12	7/18/2000	0.94	1.07	1.07
5/9/2000	0.90	1.11	1.11	7/19/2000	0.92	1.09	1.09
5/10/2000	0.91	1.10	1.10	7/20/2000	0.92	1.08	1.08
5/11/2000	0.91	1.10	1.10	7/21/2000	0.94	1.07	1.07
5/12/2000	0.90	1.11	1.11	7/24/2000	0.93	1.07	1.07
5/15/2000	0.91	1.09	1.09	7/25/2000	0.94	1.06	1.06
5/16/2000	0.91	1.10	1.10	7/26/2000	0.94	1.06	1.06
5/17/2000	0.89	1.12	1.12	7/27/2000	0.94	1.07	1.07
5/18/2000	0.89	1.12	1.12	7/28/2000	0.93	1.08	1.08
5/19/2000	0.89	1.13	1.13	7/31/2000	0.92	1.08	1.08
5/22/2000	0.90	1.11	1.11	8/1/2000	0.93	1.08	1.08

continues

Euro vs. Dollar - Exchange Rates since Inception

continued

Date		USD	EUR	Date		USD	EUR
12/22/2000	0.92	1.08	1.07	3/8/2001	0.93	1.07	0.93
12/27/2000	0.93	1.07	1.07	3/9/2001	0.94	1.07	0.93
12/28/2000	0.93	1.08	1.08	3/12/2001	0.93	1.08	0.93
1/2/2001	0.94	1.06	1.07	3/13/2001	0.92	1.07	0.94
1/3/2001	0.95	1.05	1.05	3/14/2001	0.94	1.06	0.94
1/4/2001	0.95	1.06	1.06	3/15/2001	0.94	1.06	0.94
1/5/2001	0.95	1.05	1.05	3/16/2001	0.95	1.05	0.95
1/8/2001	0.95	1.05	1.05	3/19/2001	0.90	1.05	0.95
1/9/2001	0.94	1.06	1.06	3/20/2001	0.90	1.05	0.95
1/10/2001	0.94	1.06	1.06	3/21/2001	0.90	1.06	0.94
1/11/2001	0.95	1.05	1.05	3/22/2001	0.89	1.06	0.94
1/12/2001	0.95	1.05	1.05	3/23/2001	0.89	1.05	0.95
1/15/2001	0.94	1.06	1.06	3/26/2001	0.89	1.05	0.95
1/16/2001	0.94	1.06	1.06	3/27/2001	0.90	1.06	0.94
1/17/2001	0.94	1.06	1.06	3/28/2001	0.89	1.06	0.94
1/18/2001	0.94	1.06	1.06	3/29/2001	0.88	1.06	0.94
1/19/2001	0.94	1.06	1.06	3/30/2001	0.88	1.06	0.94
1/22/2001	0.93	1.08	1.08	4/2/2001	0.88	1.08	0.94
1/23/2001	0.94	1.06	1.06	4/3/2001	0.88	1.08	0.93
1/24/2001	0.93	1.08	1.08	4/4/2001	0.90	1.08	0.93
1/25/2001	0.91	1.09	1.09	4/5/2001	0.90	1.08	0.93
1/26/2001	0.92	1.08	1.08	4/6/2001	0.89	1.09	0.91
1/29/2001	0.92	1.09	1.09	4/9/2001	0.90	1.09	0.92
1/30/2001	0.92	1.09	1.09	4/10/2001	0.89	1.09	0.92
1/31/2001	0.93	1.08	1.08	4/11/2001	0.88	1.09	0.92
2/1/2001	0.94	1.06	1.06	4/12/2001	0.88	1.08	0.93
2/2/2001	0.94	1.06	1.06	4/17/2001	0.88	1.06	0.94
2/5/2001	0.94	1.06	1.06	4/18/2001	0.88	1.06	0.94
2/6/2001	0.93	1.07	1.07	4/19/2001	0.88	1.06	0.94
2/7/2001	0.93	1.07	1.07	4/20/2001	0.90	1.07	0.93
2/8/2001	0.92	1.08	1.08	4/23/2001	0.90	1.07	0.93
2/9/2001	0.92	1.08	1.08	4/24/2001	0.90	1.08	0.92
2/12/2001	0.93	1.08	1.08	4/25/2001	0.89	1.08	0.92
2/13/2001	0.93	1.08	1.08	4/26/2001	0.90	1.08	0.93
2/14/2001	0.92	1.09	1.09	4/27/2001	0.90	1.08	0.93
2/15/2001	0.91	1.10	1.10	4/28/2001	0.89	1.08	0.93
2/16/2001	0.91	1.10	1.10	4/30/2001	0.89	1.09	0.92
2/19/2001	0.92	1.09	1.09	5/2/2001	0.89	1.10	0.91
2/20/2001	0.91	1.10	1.10	5/3/2001	0.89	1.10	0.91
2/21/2001	0.91	1.09	1.09	5/4/2001	0.89	1.09	0.92
2/22/2001	0.91	1.10	1.10	5/7/2001	0.89	1.10	0.91
2/23/2001	0.91	1.10	1.10	5/8/2001	0.89	1.09	0.91
2/26/2001	0.91	1.10	1.10	5/9/2001	0.88	1.10	0.91
2/27/2001	0.92	1.09	1.09	5/10/2001	0.89	1.10	0.91
2/28/2001	0.92	1.08	1.08	5/11/2001	0.88	1.10	0.91
3/1/2001	0.93	1.08	1.08	5/14/2001	0.88	1.09	0.92
3/2/2001	0.94	1.07	1.07	5/15/2001	0.88	1.08	0.92
3/5/2001	0.93	1.07	1.07	5/16/2001	0.88	1.08	0.93
3/6/2001	0.93	1.08	1.08	5/17/2001	0.88	1.07	0.93
3/7/2001	0.93	1.07	1.07	5/18/2001	0.88	1.07	0.93
				5/21/2001	0.87	1.08	0.93
				5/22/2001	0.87	1.07	0.93

continued

Euro vs. Dollar - Exchange Rates since Inception

continues

Date		USD	EUR
10/12/2001	10/12/2001	0.90	1.11
10/15/2001	10/15/2001	0.91	1.10
10/16/2001	10/16/2001	0.91	1.10
10/17/2001	10/17/2001	0.90	1.11
10/18/2001	10/18/2001	0.90	1.11
10/19/2001	10/19/2001	0.90	1.11
10/22/2001	10/22/2001	0.90	1.11
10/23/2001	10/23/2001	0.89	1.13
10/24/2001	10/24/2001	0.89	1.12
10/25/2001	10/25/2001	0.89	1.12
10/26/2001	10/26/2001	0.89	1.12
10/29/2001	10/29/2001	0.90	1.11
10/30/2001	10/30/2001	0.91	1.10
10/31/2001	10/31/2001	0.90	1.11
11/1/2001	11/1/2001	0.91	1.10
11/2/2001	11/2/2001	0.91	1.10
11/5/2001	11/5/2001	0.90	1.12
11/6/2001	11/6/2001	0.90	1.12
11/7/2001	11/7/2001	0.90	1.11
11/8/2001	11/8/2001	0.90	1.11
11/9/2001	11/9/2001	0.89	1.12
11/12/2001	11/12/2001	0.89	1.12
11/13/2001	11/13/2001	0.88	1.13
11/14/2001	11/14/2001	0.88	1.14
11/15/2001	11/15/2001	0.88	1.13
11/16/2001	11/16/2001	0.88	1.13
11/19/2001	11/19/2001	0.88	1.14
11/20/2001	11/20/2001	0.88	1.13
11/21/2001	11/21/2001	0.88	1.14
11/22/2001	11/22/2001	0.88	1.14
11/23/2001	11/23/2001	0.88	1.14
11/26/2001	11/26/2001	0.88	1.13
11/27/2001	11/27/2001	0.88	1.13
11/28/2001	11/28/2001	0.88	1.14
11/29/2001	11/29/2001	0.88	1.13
11/30/2001	11/30/2001	0.89	1.12
12/3/2001	12/3/2001	0.89	1.12
12/4/2001	12/4/2001	0.89	1.12
12/5/2001	12/5/2001	0.89	1.12
12/6/2001	12/6/2001	0.89	1.12
12/7/2001	12/7/2001	0.89	1.12
12/10/2001	12/10/2001	0.89	1.13
12/11/2001	12/11/2001	0.89	1.12
12/12/2001	12/12/2001	0.89	1.12
12/13/2001	12/13/2001	0.90	1.11
12/14/2001	12/14/2001	0.90	1.11
12/17/2001	12/17/2001	0.90	1.11
12/18/2001	12/18/2001	0.90	1.11
12/19/2001	12/19/2001	0.90	1.11
12/20/2001	12/20/2001	0.87	1.15
12/21/2001	12/21/2001	0.87	1.15
12/22/2001	12/22/2001	0.87	1.14
12/25/2001	12/25/2001	0.87	1.15
12/26/2001	12/26/2001	0.87	1.15
12/27/2001	12/27/2001	0.86	1.16
12/28/2001	12/28/2001	0.87	1.16
12/29/2001	12/29/2001	0.87	1.15
12/30/2001	12/30/2001	0.88	1.14
1/1/2002	1/1/2002	0.88	1.14
1/2/2002	1/2/2002	0.88	1.14
1/3/2002	1/3/2002	0.87	1.15
1/4/2002	1/4/2002	0.90	1.12
1/7/2002	1/7/2002	0.89	1.12
1/8/2002	1/8/2002	0.89	1.12
1/9/2002	1/9/2002	0.89	1.12
1/10/2002	1/10/2002	0.89	1.12
1/11/2002	1/11/2002	0.89	1.12
1/12/2002	1/12/2002	0.89	1.12
1/14/2002	1/14/2002	0.89	1.12
1/15/2002	1/15/2002	0.89	1.12
1/16/2002	1/16/2002	0.88	1.13
1/17/2002	1/17/2002	0.88	1.13
1/18/2002	1/18/2002	0.88	1.14
1/21/2002	1/21/2002	0.88	1.13
1/22/2002	1/22/2002	0.88	1.13
1/23/2002	1/23/2002	0.89	1.13
1/24/2002	1/24/2002	0.88	1.14
1/25/2002	1/25/2002	0.87	1.15
1/28/2002	1/28/2002	0.86	1.17
1/29/2002	1/29/2002	0.86	1.16
1/30/2002	1/30/2002	0.86	1.16
1/31/2002	1/31/2002	0.86	1.16
2/1/2002	2/1/2002	0.86	1.16
2/4/2002	2/4/2002	0.86	1.16
2/5/2002	2/5/2002	0.87	1.15
2/6/2002	2/6/2002	0.87	1.15
2/7/2002	2/7/2002	0.87	1.15
2/8/2002	2/8/2002	0.87	1.14
2/11/2002	2/11/2002	0.88	1.14
2/12/2002	2/12/2002	0.88	1.14
2/13/2002	2/13/2002	0.87	1.15
2/14/2002	2/14/2002	0.87	1.15
2/15/2002	2/15/2002	0.87	1.15
2/18/2002	2/18/2002	0.87	1.15
2/19/2002	2/19/2002	0.87	1.15
2/20/2002	2/20/2002	0.87	1.14
2/21/2002	2/21/2002	0.87	1.15
2/22/2002	2/22/2002	0.87	1.14
2/25/2002	2/25/2002	0.87	1.15
2/26/2002	2/26/2002	0.87	1.15
2/27/2002	2/27/2002	0.86	1.16
2/28/2002	2/28/2002	0.87	1.16
3/1/2002	3/1/2002	0.87	1.15
3/4/2002	3/4/2002	0.86	1.16
3/5/2002	3/5/2002	0.87	1.15
3/6/2002	3/6/2002	0.87	1.15
3/7/2002	3/7/2002	0.88	1.14
3/8/2002	3/8/2002	0.88	1.14

continues

continued

Euro vs. Dollar - Exchange Rates since Inception

Date		USD	EUR	Date		USD	EUR
3/11/2002	0.87	1.14	1.09	5/24/2002	0.92	1.01	1.09
3/12/2002	0.87	1.15	1.09	5/27/2002	0.92	1.01	1.09
3/13/2002	0.87	1.14	1.08	5/28/2002	0.93	1.01	1.08
3/14/2002	0.88	1.14	1.08	5/29/2002	0.93	1.01	1.08
3/15/2002	0.89	1.13	1.08	5/30/2002	0.94	1.01	1.07
3/18/2002	0.88	1.14	1.07	5/31/2002	0.94	1.01	1.07
3/19/2002	0.88	1.13	1.07	6/3/2002	0.93	1.01	1.07
3/20/2002	0.88	1.13	1.06	6/4/2002	0.94	1.01	1.06
3/21/2002	0.88	1.13	1.06	6/5/2002	0.94	1.01	1.06
3/22/2002	0.88	1.14	1.07	6/6/2002	0.94	1.01	1.07
3/25/2002	0.88	1.14	1.06	6/7/2002	0.95	1.01	1.06
3/26/2002	0.87	1.14	1.06	6/10/2002	0.95	1.01	1.06
3/27/2002	0.87	1.14	1.06	6/11/2002	0.94	1.01	1.06
3/28/2002	0.87	1.15	1.06	6/12/2002	0.95	1.01	1.06
4/2/2002	0.88	1.14	1.06	6/13/2002	0.94	1.01	1.06
4/3/2002	0.88	1.14	1.06	6/14/2002	0.95	1.01	1.06
4/4/2002	0.88	1.13	1.06	6/17/2002	0.94	1.01	1.06
4/5/2002	0.88	1.14	1.05	6/18/2002	0.95	1.01	1.05
4/8/2002	0.88	1.14	1.05	6/19/2002	0.96	1.01	1.05
4/9/2002	0.88	1.14	1.04	6/20/2002	0.96	1.01	1.04
4/10/2002	0.88	1.14	1.04	6/21/2002	0.96	1.01	1.04
4/11/2002	0.88	1.14	1.03	6/24/2002	0.98	1.01	1.03
4/12/2002	0.88	1.14	1.01	6/25/2002	0.97	1.01	1.01
4/15/2002	0.88	1.14	1.02	6/26/2002	0.99	1.01	1.02
4/16/2002	0.88	1.14	1.01	6/27/2002	0.98	1.01	1.01
4/17/2002	0.89	1.13	1.02	6/28/2002	1.00	1.01	1.02
4/18/2002	0.89	1.12	1.02	7/1/2002	0.99	1.01	1.02
4/19/2002	0.89	1.13	1.01	7/2/2002	0.98	1.01	1.01
4/22/2002	0.89	1.13	1.02	7/3/2002	0.98	1.01	1.02
4/23/2002	0.89	1.13	1.02	7/4/2002	0.98	1.01	1.02
4/24/2002	0.89	1.12	1.02	7/5/2002	0.97	1.01	1.02
4/25/2002	0.90	1.11	1.02	7/8/2002	0.98	1.01	1.02
4/26/2002	0.90	1.11	1.01	7/9/2002	0.99	1.01	1.01
4/29/2002	0.90	1.11	1.01	7/10/2002	0.99	1.01	1.01
4/30/2002	0.90	1.11	1.01	7/12/2002	0.99	1.01	1.01
5/3/2002	0.91	1.10	1.00	7/15/2002	1.00	1.01	1.00
5/6/2002	0.91	1.09	1.00	7/16/2002	1.01	1.01	1.00
5/7/2002	0.91	1.10	0.99	7/17/2002	1.01	1.01	0.99
5/8/2002	0.91	1.10	0.99	7/18/2002	1.01	1.01	0.99
5/9/2002	0.91	1.10	0.99	7/19/2002	1.01	1.01	0.99
5/10/2002	0.91	1.10	0.99	7/22/2002	1.01	1.01	0.99
5/13/2002	0.91	1.10	1.01	7/23/2002	0.99	1.01	1.01
5/14/2002	0.91	1.10	1.01	7/24/2002	0.99	1.01	1.01
5/15/2002	0.90	1.11	1.01	7/25/2002	1.00	1.01	1.01
5/16/2002	0.91	1.10	1.00	7/26/2002	1.00	1.01	1.00
5/17/2002	0.92	1.09	1.00	7/29/2002	0.98	1.01	1.02
5/20/2002	0.92	1.09	1.02	7/30/2002	0.98	1.01	1.02
5/21/2002	0.92	1.09	1.02	7/31/2002	0.98	1.01	1.02
5/22/2002	0.93	1.08	1.02	8/1/2002	0.98	1.01	1.02
5/23/2002	0.92	1.09	1.01	8/2/2002	0.99	1.01	1.01

continues

Euro vs. Dollar - Exchange Rates since Inception

continued

Date		USD	EUR	Date		USD	EUR
8/5/2002	0.98	1.02	1.02	10/15/2002	0.98	1.02	1.02
8/6/2002	0.97	1.03	1.03	10/16/2002	0.98	1.02	1.02
8/7/2002	0.97	1.03	1.03	10/17/2002	0.98	1.02	1.02
8/8/2002	0.97	1.03	1.03	10/18/2002	0.97	1.03	1.03
8/9/2002	0.97	1.03	1.03	10/21/2002	0.97	1.03	1.03
8/12/2002	0.98	1.02	1.02	10/22/2002	0.98	1.02	1.02
8/13/2002	0.98	1.02	1.02	10/23/2002	0.98	1.02	1.02
8/14/2002	0.99	1.01	1.01	10/24/2002	0.97	1.03	1.03
8/16/2002	0.98	1.02	1.02	10/25/2002	0.98	1.02	1.02
8/19/2002	0.98	1.02	1.02	10/28/2002	0.97	1.03	1.03
8/20/2002	0.98	1.02	1.02	10/29/2002	0.98	1.02	1.02
8/21/2002	0.98	1.02	1.02	10/30/2002	0.98	1.02	1.02
8/22/2002	0.98	1.02	1.02	11/1/2002	1.00	1.00	1.00
8/23/2002	0.97	1.03	1.03	11/4/2002	0.99	1.01	1.01
8/26/2002	0.97	1.03	1.03	11/5/2002	1.00	1.00	1.00
8/27/2002	0.98	1.02	1.02	11/6/2002	1.00	1.00	1.00
8/28/2002	0.98	1.02	1.02	11/7/2002	1.00	1.00	1.00
8/29/2002	0.98	1.02	1.02	11/8/2002	1.01	0.99	0.99
8/30/2002	0.98	1.02	1.02	11/11/2002	1.01	0.99	0.99
9/2/2002	0.98	1.02	1.02	11/12/2002	1.01	0.99	0.99
9/3/2002	0.99	1.01	1.01	11/13/2002	1.01	0.99	0.99
9/4/2002	0.99	1.01	1.01	11/14/2002	1.01	0.99	0.99
9/5/2002	1.00	1.00	1.00	11/15/2002	1.00	1.00	1.00
9/6/2002	0.99	1.01	1.01	11/18/2002	1.01	0.99	0.99
9/9/2002	0.98	1.02	1.02	11/19/2002	1.01	0.99	0.99
9/10/2002	0.98	1.02	1.02	11/20/2002	1.00	1.00	1.00
9/11/2002	0.97	1.03	1.03	11/21/2002	1.00	1.00	1.00
9/12/2002	0.98	1.02	1.02	11/22/2002	1.00	1.00	1.00
9/13/2002	0.98	1.02	1.02	11/25/2002	0.99	1.01	1.01
9/16/2002	0.97	1.03	1.03	11/26/2002	0.99	1.01	1.01
9/17/2002	0.96	1.04	1.04	11/27/2002	0.99	1.01	1.01
9/18/2002	0.97	1.03	1.03	11/28/2002	0.99	1.01	1.01
9/19/2002	0.98	1.02	1.02	11/29/2002	0.99	1.01	1.01
9/20/2002	0.98	1.02	1.02	12/2/2002	0.99	1.01	1.01
9/23/2002	0.98	1.02	1.02	12/3/2002	1.00	1.00	1.00
9/24/2002	0.98	1.02	1.02	12/4/2002	1.00	1.00	1.00
9/25/2002	0.98	1.02	1.02	12/5/2002	1.00	1.00	1.00
9/26/2002	0.98	1.02	1.02	12/6/2002	1.00	1.00	1.00
9/27/2002	0.98	1.02	1.02	12/9/2002	1.01	0.99	0.99
9/30/2002	0.99	1.01	1.01	12/10/2002	1.01	0.99	0.99
10/1/2002	0.99	1.01	1.01	12/11/2002	1.01	0.99	0.99
10/2/2002	0.98	1.02	1.02	12/12/2002	1.02	0.98	0.98
10/3/2002	0.99	1.01	1.01	12/13/2002	1.02	0.98	0.98
10/4/2002	0.99	1.01	1.01	12/16/2002	1.02	0.98	0.98
10/7/2002	0.98	1.02	1.02	12/17/2002	1.03	0.97	0.97
10/8/2002	0.98	1.02	1.02	12/18/2002	1.02	0.98	0.98
10/9/2002	0.98	1.02	1.02	12/19/2002	1.03	0.97	0.97
10/10/2002	0.99	1.01	1.01	12/20/2002	1.03	0.97	0.97
10/11/2002	0.99	1.01	1.01	12/23/2002	1.03	0.97	0.97
10/14/2002	0.99	1.01	1.01	12/24/2002	1.03	0.97	0.97

continued

Euro vs. Dollar - Exchange Rates since Inception

continues

Date		USD	EUR
12/27/2002	1.04	0.96	0.90
12/30/2002	1.04	0.96	0.91
12/31/2002	1.05	0.95	0.92
1/2/2003	1.04	0.96	0.93
1/3/2003	1.04	0.96	0.93
1/6/2003	1.05	0.95	0.94
1/7/2003	1.04	0.96	0.95
1/8/2003	1.04	0.96	0.94
1/9/2003	1.05	0.95	0.95
1/10/2003	1.05	0.95	0.94
1/13/2003	1.05	0.95	0.94
1/14/2003	1.06	0.95	0.94
1/15/2003	1.05	0.95	0.93
1/16/2003	1.06	0.95	0.93
1/17/2003	1.07	0.94	0.92
1/20/2003	1.07	0.94	0.92
1/21/2003	1.07	0.94	0.92
1/22/2003	1.07	0.93	0.93
1/23/2003	1.08	0.93	0.93
1/24/2003	1.08	0.93	0.93
1/27/2003	1.08	0.93	0.93
1/28/2003	1.08	0.93	0.93
1/29/2003	1.09	0.92	0.93
1/30/2003	1.07	0.93	0.93
1/31/2003	1.08	0.92	0.93
2/3/2003	1.07	0.93	0.93
2/4/2003	1.08	0.92	0.92
2/5/2003	1.09	0.92	0.92
2/6/2003	1.08	0.92	0.92
2/7/2003	1.08	0.93	0.93
2/10/2003	1.08	0.93	0.93
2/11/2003	1.07	0.93	0.93
2/12/2003	1.07	0.93	0.93
2/13/2003	1.08	0.93	0.93
2/14/2003	1.08	0.93	0.93
2/17/2003	1.07	0.93	0.93
2/18/2003	1.07	0.93	0.93
2/19/2003	1.07	0.93	0.93
2/20/2003	1.08	0.93	0.93
2/21/2003	1.08	0.92	0.92
2/24/2003	1.07	0.93	0.93
2/25/2003	1.08	0.93	0.93
2/26/2003	1.08	0.93	0.93
2/27/2003	1.08	0.92	0.92
2/28/2003	1.08	0.93	0.93
3/3/2003	1.08	0.93	0.93
3/4/2003	1.09	0.92	0.92
3/5/2003	1.10	0.91	0.91
3/6/2003	1.10	0.91	0.91
3/7/2003	1.10	0.91	0.91
3/10/2003	1.10	0.91	0.91

Date		USD	EUR
3/11/2003	1.11	0.90	0.90
3/12/2003	1.1	0.91	0.91
3/13/2003	1.09	0.92	0.93
3/14/2003	1.08	0.93	0.93
3/17/2003	1.08	0.93	0.93
3/18/2003	1.06	0.94	0.94
3/19/2003	1.06	0.95	0.95
3/20/2003	1.06	0.94	0.94
3/21/2003	1.06	0.95	0.95
3/22/2003	1.06	0.95	0.95
3/24/2003	1.06	0.94	0.94
3/25/2003	1.07	0.94	0.94
3/26/2003	1.07	0.94	0.94
3/27/2003	1.07	0.93	0.93
3/28/2003	1.07	0.93	0.93
3/31/2003	1.09	0.92	0.92
4/1/2003	1.09	0.92	0.92
4/2/2003	1.08	0.92	0.92
4/3/2003	1.07	0.93	0.93
4/4/2003	1.07	0.93	0.93
4/7/2003	1.06	0.95	0.95
4/8/2003	1.07	0.94	0.94
4/9/2003	1.07	0.93	0.93
4/10/2003	1.08	0.93	0.93
4/11/2003	1.07	0.93	0.93
4/14/2003	1.07	0.93	0.93
4/15/2003	1.08	0.93	0.93
4/16/2003	1.08	0.92	0.92
4/17/2003	1.09	0.92	0.92
4/22/2003	1.10	0.91	0.91
4/23/2003	1.09	0.91	0.91
4/24/2003	1.10	0.91	0.91
4/25/2003	1.10	0.91	0.91
4/28/2003	1.10	0.91	0.91
4/29/2003	1.10	0.91	0.91
4/30/2003	1.11	0.90	0.90
5/2/2003	1.12	0.89	0.89
5/5/2003	1.12	0.89	0.89
5/6/2003	1.13	0.88	0.88
5/7/2003	1.14	0.88	0.88
5/8/2003	1.14	0.87	0.87
5/9/2003	1.15	0.87	0.87
5/12/2003	1.16	0.86	0.86
5/13/2003	1.15	0.87	0.87
5/14/2003	1.15	0.87	0.87
5/15/2003	1.15	0.87	0.87
5/16/2003	1.15	0.87	0.87
5/19/2003	1.17	0.86	0.86
5/20/2003	1.16	0.86	0.86
5/21/2003	1.17	0.86	0.86
5/22/2003	1.17	0.85	0.85
5/23/2003	1.18	0.85	0.85

Implications of a Higher Euro: Trends, Benefits and Drawbacks

continued

Euro vs. Dollar - Exchange Rates since Inception

Date		USD	EUR	Date		USD	EUR
5/26/2003	1.18	0.85	8/5/2003	1.13	0.88		
5/27/2003	1.19	0.84	8/6/2003	1.14	0.88		
5/28/2003	1.17	0.85	8/7/2003	1.14	0.88		
5/29/2003	1.18	0.85	8/8/2003	1.13	0.88		
5/30/2003	1.18	0.85	8/11/2003	1.13	0.89		
6/2/2003	1.17	0.86	8/12/2003	1.13	0.88		
6/3/2003	1.17	0.85	8/13/2003	1.13	0.89		
6/4/2003	1.17	0.86	8/14/2003	1.13	0.89		
6/5/2003	1.18	0.85	8/15/2003	1.12	0.89		
6/6/2003	1.18	0.85	8/18/2003	1.12	0.89		
6/9/2003	1.17	0.85	8/19/2003	1.11	0.90		
6/10/2003	1.17	0.85	8/20/2003	1.11	0.90		
6/11/2003	1.17	0.85	8/21/2003	1.10	0.91		
6/12/2003	1.17	0.85	8/22/2003	1.09	0.92		
6/13/2003	1.18	0.85	8/25/2003	1.09	0.92		
6/16/2003	1.19	0.84	8/26/2003	1.08	0.92		
6/17/2003	1.18	0.85	8/27/2003	1.09	0.92		
6/18/2003	1.17	0.85	8/28/2003	1.08	0.92		
6/19/2003	1.17	0.86	8/29/2003	1.09	0.92		
6/20/2003	1.17	0.86	9/1/2003	1.10	0.91		
6/23/2003	1.15	0.87	9/2/2003	1.08	0.92		
6/24/2003	1.16	0.86	9/3/2003	1.08	0.93		
6/25/2003	1.16	0.87	9/4/2003	1.08	0.92		
6/26/2003	1.14	0.87	9/5/2003	1.09	0.92		
6/27/2003	1.14	0.88	9/8/2003	1.11	0.90		
6/30/2003	1.14	0.88	9/9/2003	1.11	0.90		
7/1/2003	1.15	0.87	9/10/2003	1.12	0.90		
7/2/2003	1.15	0.87	9/11/2003	1.12	0.89		
7/3/2003	1.15	0.87	9/12/2003	1.12	0.90		
7/4/2003	1.15	0.87	9/15/2003	1.13	0.89		
7/7/2003	1.14	0.88	9/16/2003	1.12	0.89		
7/8/2003	1.13	0.88	9/17/2003	1.12	0.89		
7/9/2003	1.14	0.88	9/18/2003	1.13	0.89		
7/10/2003	1.13	0.88	9/19/2003	1.13	0.88		
7/11/2003	1.13	0.88	9/22/2003	1.15	0.87		
7/14/2003	1.13	0.89	9/23/2003	1.15	0.87		
7/15/2003	1.13	0.88	9/24/2003	1.15	0.87		
7/16/2003	1.11	0.90	9/25/2003	1.15	0.87		
7/17/2003	1.12	0.89	9/26/2003	1.15	0.87		
7/18/2003	1.12	0.89	9/29/2003	1.14	0.88		
7/21/2003	1.13	0.89	9/30/2003	1.17	0.86		
7/22/2003	1.13	0.88	10/1/2003	1.17	0.86		
7/23/2003	1.14	0.88	10/2/2003	1.17	0.86		
7/24/2003	1.15	0.87	10/3/2003	1.17	0.86		
7/25/2003	1.15	0.87	10/6/2003	1.16	0.86		
7/28/2003	1.15	0.87	10/7/2003	1.18	0.85		
7/29/2003	1.15	0.87	10/8/2003	1.18	0.85		
7/30/2003	1.14	0.88	10/9/2003	1.18	0.85		
7/31/2003	1.13	0.88	10/10/2003	1.18	0.85		
8/1/2003	1.12	0.90	10/13/2003	1.17	0.86		
8/4/2003	1.13	0.88	10/14/2003	1.16	0.86		

continues

Euro vs. Dollar - Exchange Rates since Inception

continued

Date		USD	EUR	Date		USD	EUR
10/15/2003	1.17	0.86	1.25	12/29/2003	0.80	1.25	0.80
10/16/2003	1.16	0.86	1.25	12/30/2003	0.80	1.25	0.80
10/17/2003	1.16	0.86	1.26	12/31/2003	0.79	1.26	0.79
10/20/2003	1.16	0.86	1.26	1/2/2004	0.79	1.26	0.79
10/21/2003	1.16	0.86	1.27	1/5/2004	0.78	1.28	0.78
10/22/2003	1.17	0.86	1.27	1/6/2004	0.78	1.28	0.78
10/23/2003	1.18	0.85	1.27	1/7/2004	0.79	1.27	0.79
10/24/2003	1.18	0.85	1.26	1/8/2004	0.79	1.26	0.79
10/27/2003	1.17	0.85	1.27	1/9/2004	0.79	1.27	0.79
10/28/2003	1.17	0.86	1.28	1/12/2004	0.78	1.28	0.78
10/29/2003	1.17	0.86	1.27	1/13/2004	0.78	1.27	0.78
10/30/2003	1.17	0.85	1.27	1/14/2004	0.79	1.27	0.79
10/31/2003	1.16	0.86	1.26	1/15/2004	0.79	1.26	0.79
11/3/2003	1.16	0.86	1.26	1/16/2004	0.80	1.25	0.80
11/4/2003	1.15	0.87	1.24	1/19/2004	0.81	1.24	0.81
11/5/2003	1.15	0.87	1.25	1/20/2004	0.80	1.25	0.80
11/6/2003	1.14	0.87	1.26	1/21/2004	0.79	1.26	0.79
11/7/2003	1.14	0.88	1.27	1/22/2004	0.79	1.27	0.79
11/10/2003	1.15	0.87	1.27	1/23/2004	0.80	1.26	0.80
11/11/2003	1.15	0.87	1.26	1/26/2004	0.80	1.26	0.80
11/12/2003	1.16	0.86	1.25	1/27/2004	0.80	1.25	0.80
11/13/2003	1.17	0.86	1.26	1/28/2004	0.80	1.26	0.80
11/14/2003	1.18	0.85	1.25	1/29/2004	0.80	1.25	0.80
11/17/2003	1.18	0.85	1.24	1/30/2004	0.81	1.24	0.81
11/18/2003	1.18	0.85	1.25	2/2/2004	0.80	1.25	0.80
11/19/2003	1.19	0.84	1.26	2/3/2004	0.79	1.26	0.79
11/20/2003	1.19	0.84	1.25	2/4/2004	0.80	1.25	0.80
11/21/2003	1.19	0.84	1.26	2/5/2004	0.79	1.26	0.79
11/24/2003	1.18	0.85	1.25	2/6/2004	0.80	1.25	0.80
11/25/2003	1.18	0.85	1.27	2/9/2004	0.79	1.27	0.79
11/26/2003	1.18	0.85	1.28	2/10/2004	0.78	1.28	0.78
11/27/2003	1.19	0.84	1.27	2/11/2004	0.79	1.27	0.79
11/28/2003	1.20	0.83	1.28	2/12/2004	0.78	1.28	0.78
12/1/2003	1.20	0.83	1.28	2/13/2004	0.78	1.28	0.78
12/2/2003	1.20	0.84	1.27	2/16/2004	0.78	1.27	0.78
12/3/2003	1.21	0.83	1.29	2/17/2004	0.78	1.29	0.78
12/4/2003	1.21	0.83	1.28	2/18/2004	0.78	1.28	0.78
12/5/2003	1.21	0.83	1.27	2/19/2004	0.79	1.27	0.79
12/8/2003	1.22	0.82	1.27	2/20/2004	0.79	1.27	0.79
12/9/2003	1.23	0.82	1.26	2/23/2004	0.80	1.26	0.80
12/10/2003	1.22	0.82	1.26	2/24/2004	0.79	1.26	0.79
12/11/2003	1.22	0.82	1.26	2/25/2004	0.79	1.26	0.79
12/12/2003	1.23	0.82	1.24	2/26/2004	0.80	1.24	0.80
12/15/2003	1.22	0.82	1.24	2/27/2004	0.81	1.24	0.81
12/16/2003	1.23	0.81	1.25	3/1/2004	0.80	1.25	0.80
12/17/2003	1.23	0.81	1.24	3/2/2004	0.81	1.24	0.81
12/18/2003	1.24	0.81	1.21	3/3/2004	0.82	1.21	0.82
12/19/2003	1.24	0.81	1.21	3/4/2004	0.82	1.21	0.82
12/22/2003	1.24	0.80	1.22	3/5/2004	0.82	1.22	0.82
12/23/2003	1.24	0.81	1.24	3/8/2004	0.81	1.24	0.81
12/24/2003	1.24	0.81	1.24	3/9/2004	0.81	1.24	0.81

continues

Euro vs. Dollar - Exchange Rates Since Inception

continued

Euro vs. Dollar - Exchange Rates since Inception		continued	
Date	USD	EUR	
3/10/2004	1.23	0.81	
3/11/2004	1.23	0.82	
3/12/2004	1.22	0.82	
3/15/2004	1.23	0.81	
3/16/2004	1.24	0.81	
3/17/2004	1.23	0.82	
3/18/2004	1.23	0.82	
3/19/2004	1.23	0.81	
3/22/2004	1.24	0.81	
3/23/2004	1.23	0.81	
3/24/2004	1.22	0.82	
3/25/2004	1.21	0.82	
3/26/2004	1.22	0.82	
3/29/2004	1.21	0.83	
3/30/2004	1.22	0.82	
3/31/2004	1.22	0.82	
4/1/2004	1.23	0.81	
4/2/2004	1.23	0.81	
4/5/2004	1.21	0.83	
4/6/2004	1.21	0.83	
4/7/2004	1.21	0.83	
4/8/2004	1.21	0.83	
4/13/2004	1.20	0.84	
4/14/2004	1.19	0.84	
4/15/2004	1.19	0.84	
4/16/2004	1.19	0.84	
4/19/2004	1.20	0.83	
4/20/2004	1.19	0.84	
4/21/2004	1.18	0.84	
4/22/2004	1.19	0.84	
4/23/2004	1.19	0.84	
4/26/2004	1.19	0.84	
4/27/2004	1.19	0.84	
4/28/2004	1.19	0.84	
4/29/2004	1.18	0.85	
4/30/2004	1.19	0.84	
5/3/2004	1.20	0.84	
5/4/2004	1.21	0.83	
5/5/2004	1.21	0.82	
5/6/2004	1.21	0.83	
5/7/2004	1.21	0.83	
5/10/2004	1.18	0.84	
5/11/2004	1.18	0.85	
5/12/2004	1.19	0.84	
5/13/2004	1.18	0.85	
5/14/2004	1.18	0.85	
5/17/2004	1.20	0.83	
5/18/2004	1.20	0.83	
5/19/2004	1.20	0.83	
5/20/2004	1.19	0.84	
5/21/2004	1.20	0.83	

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