

Chapter 3: Optimum Currency Areas: U.S. Dollar, Euro and Asian Money

CHAPTER 3: OPTIMUM CURRENCY AREAS: U.S. DOLLAR, EURO AND ASIAN MONEY 1

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1. The Optimum Currency Area

Robert Mundell is the father of the concept of optimum currency area (Mundell 1961) and he has taught us thereby a great deal about it (Mundell 1970, 1999, 2003). President Kennedy reminded his fellow countrymen that it is the strength of the US dollar, bolstered by the strength of the US economy, not the US military arsenal, which contributes to the international leadership of the United States of America. Saburo Okita sought to explain policy approaches in the framework of economic regional communities in the context of global economic cooperation, and thus responded to the question if we will have one world or several (Okita 1989, 1994). Indeed, he pioneered the concept of multiple currency areas.

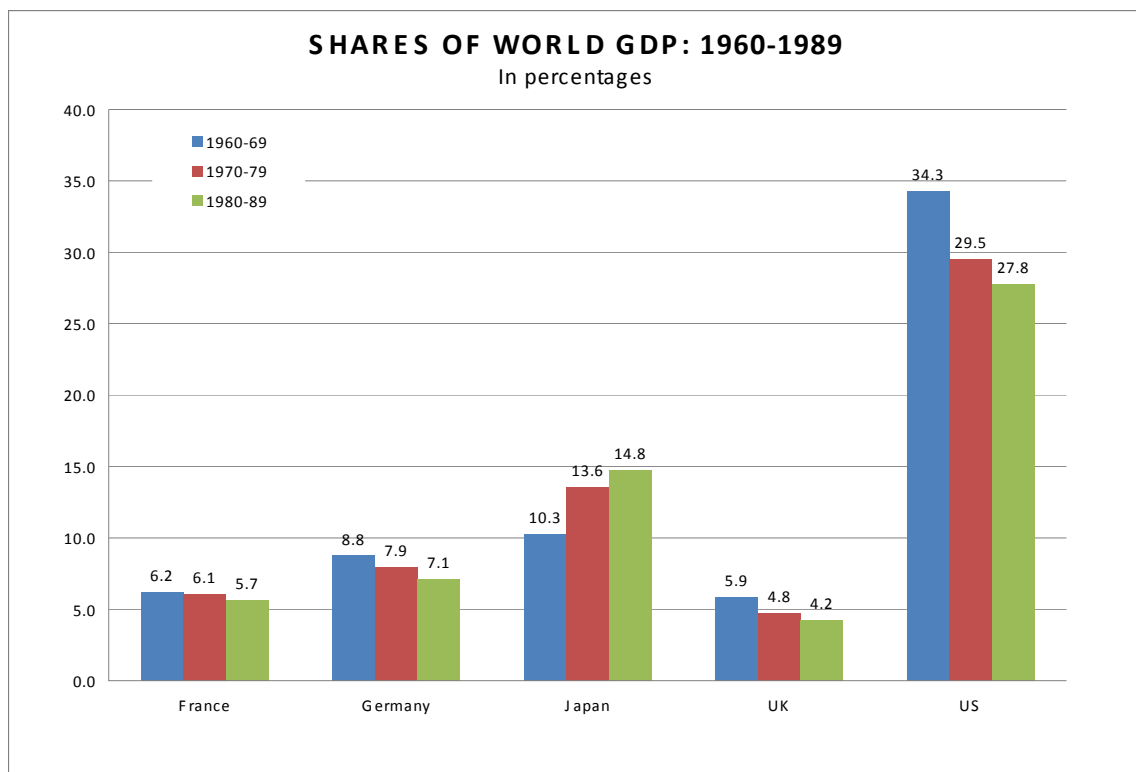
In the 1960s, the US share of world GDP dominated at 34.3%. Japan ranked a remote second with its share of 10.3%, and Germany, France and the UK following, in that order. This pattern continued through the 1970s and 1980s (Table 3.1 and Figure 3.1). Though the rest of the non-communist world had substantive economic interaction amongst them, trade and investment with the US, which produced the largest basket of the world's goods and services, was vital and the US dollar became the world's optimum currency, recognized and accepted globally. The non-communist countries depended on the imports from the USA and paid for them by their exportables. If unable to finance essential imports, they could instead engage in financial accommodation with the USA. Thus, the US dollar became the core currency of international transactions.

Table 3.1: Shares of World GDP: 1960-69, 1970-79, 1980-89, Selected Countries

Country	1960-69	1970-79	1980-89
US	34.3	29.5	27.8
Japan	10.3	13.6	14.8
Germany	8.8	7.9	7.1
France	6.2	6.1	5.7
UK	5.9	4.8	4.2
World	100.0	100.0	100.0

Source: World Development Indicators, 1995

Figure 3.1: Shares of World GDP: 1960-1989



Source: Based on Table 3.1

On August 15, 1971, under historical circumstances, the US dollar's fixed gold value of one ounce of pure gold trading at US\$ 35 was discontinued. Kindleberger (1985) forcefully argued that the US dollar could not be expected to support the global military and economic stability of the post-WWII free world for an indefinite period, all other things being equal. True, other things are seldom equal. Even so, a theory involves

generalization and validity in general.

In the 1980s, a select group of industrialized countries constituted a global forum, the Group of five (“G-5”), which over time added three more members and came to be known as the Group of eight (G-8) consisting of Canada, France, Germany, Italy, Japan, United Kingdom, United States of America and Russia. Annual summits of the Heads of these states have become an important forum. The Finance Ministers of the G-8 also meet and review the issues of mutual concern inclusive of exchange rate fluctuations. Today, the euro and dollar are competitive currency regimes; it is anticipated that they will soon to be joined by the Asian Money (Dutta 2008 forthcoming, see also Dutta 2007, 2000a, 2000b, 2001, 2002), and the African Money (Dutta 2006, 2002, see also http://news.bbc.co.uk/2/hi/africa/country_profiles/3870303.stm), and warrant a revisit with the concept of optimum currency area.

This study offers a formal definition of optimum currency area in terms of a given currency’s competitive share of world output:

$$\text{Currency } i = f(\text{GDP } i / \text{GDP } w)$$

where

GDP = gross domestic product
i = individual country
w = world

The larger the share of world output of goods and services of a given currency regime, expectedly, the larger will be its share of world trade. Given the fact that in 2005, the EU-27 and the USA produced some 60% of the world GDP, their share of world trade was correspondingly large. The Asian economic group, based on the AE-22 paradigm, as discussed here, will have competitively large shares of world output and

world trade.

The EU, with its largest share of world GDP and trade, has given a new connotation to the Theory of Optimum Currency Area. Irrespective of linguistic, religious, and lifestyle diversities, the people belonging to one common European geography have become citizens of the European family (Monnett 1978). One integrated economy in a continental geographic unit with well-specified intraregional micro and macroeconomic parameters, transparent and judicially enforceable, is in place. The EU has evolved far beyond the traditional Free Trade Area (“FTA”) or Customs Union (Viner 1950). The EU-FTA ensures free flow of trade of all goods and services amongst the EU member economies, and no trade barriers. There are no duties, customs, or quotas. They have one collective membership to the WTO, with one vote. They have a common set of trade policies vis-à-vis the rest of the world, with no excuses or exceptions. Goods and services traded in the EU are standardized by mutual accreditation by member countries.

Free flows of investment in the Eurozone are immune from the risk of exchange rate fluctuations and risks will decline as the Eurozone membership grows to include all EU States. In addition, free flows of investments have helped to create jobs where the people, unemployed or under-employed, reside, so that the free movement of labor within the EU has not caused mass migration from one member country with relatively low income to another with relatively high income (Issing, 1996, 1999, 2002; Vanthoor 1999, 2002; Dutta 2000.a, 2000.b, 2001, 2002a, 2002.b; Temperton 1998, Letiche 1997).

As of December 21, 2007, the EU’s “border-free zone”, often referred to as the Schengen Zone, has expanded to include nine new members who became members of the EU in 2004: Latvia, Lithuania, Estonia, Poland, Slovakia, Hungary, the Czech Republic,

Slovakia and Malta. One member, Cyprus, has requested an additional year before they join the Schengen Zone. The newest member states, Romania and Bulgaria, have yet to satisfy the security criteria. Constituted in 1985, the Schengen Zone now covers 24 member countries and a population of 400 million. The agreement covers land and sea borders and will be extended to air space in March 2008.

The adoption of the Constitution for Europe to promote the complete political integration of the European Union is still in progress; the economic integration of the Union has been based on a series of Treaties and other ad hoc arrangements. The European Parliament, the European Council, the Council of Ministers, the European Commission, the Court of Justice, aided by committees and councils, provide the legislative, executive and judicial institutions for the EU government. It is noteworthy that extensive work has already been undertaken to achieve functional integration in environment, immigration and naturalization, terrorism and protection, transportation, the principle of competition, defense and security, and foreign policy. The oneness of Europe based on the continent of Europe is indeed very pronounced.

2. The Paradigm of Geo-Economics

The paradigm of geo-economics has emerged to challenge the Cold War concept of geo-politics. The European Union is based on the principle of competition and the competitive euro-dollar currency regimes contribute to the optimization of economic gains for all micro units, households as well as business units, which are not limited to two currency regimes, but benefit the rest of the world (Dutta 2007, 1999, see also Johnson 2004, Arndt 1994, Grimes et al., Dutta 1992, also 1999).

The Europeanization of Europe and the increasingly competitive status of the euro

cannot be reversed. One rational option under consideration for the US dollar is to sponsor an American Hemispheric Economic Union promoting the Americanization of the Americas. The USA hosted the first Hemispheric Economic Conference in 2004, and several hemispheric economic summits with all sovereign nation state economies in the Americas, excepting Cuba, have been held since then. However, efforts to promote hemispheric economic cooperation continue to lack the dynamic and imaginative leadership of the USA, the largest economy of the hemisphere, preventing effective strides in this front. The proposal to institute a Free Trade Area of the Americas (FTAA) by 2005, of course, has failed to be an accomplishment.

On the other hand, the process of the Asianization of Asia is in robust progress. As of 2000, the 4 (Japan, Korea, China, India) plus 10 (Indonesia, Malaysia, the Philippines, Thailand, Singapore, Vietnam, Brunei Darussalam, Laos, Cambodia and Myanmar) model of Asian economic integration has been an international economic fact. The frequent meetings of the 3 (Japan, Korea and China) plus 5 (Indonesia, Malaysia, the Philippines, Thailand and Singapore) group have already been on record since the Asian Financial Crisis of 1997-98. The framework of “The Asian Way” has been eloquently referred to by India’s Prime Minister in his address to the Chinese Academy of Social Sciences in Beijing during his recent official visit to China (January 15, 2008).

The progressive industrialization of this group of Asian economies, has contributed to substantive intra-Asian economic cooperation, and calls for intra-regional micro and macroeconomic guidelines have become increasingly pronounced (Shin 2004, Dutta 2002.b, Kawai 2006, Dutta 2008 (*forthcoming*)). Three factors have contributed to the progressive enrichment of the process of Asian continental economic cooperation:

- a) the notable increase in Asia's share of economic interaction in terms of trade and investment (see Sections 7 and 8 of this chapter);
- b) disappointment with the poor results of APEC; and
- c) their learning from the success of the European Union, now composed of 27 members.

Will the 4+10 follow “the principle of inclusion” as the EU did, and include Mongolia, Chinese Taipei, Pakistan, Maldives, Sri Lanka, Nepal, Bangladesh and Bhutan, the eight other economies belonging to the wider map of Asia, as we have discussed? The leaders of the 4+10 model have emphatically argued for the Asian Free Trade Model as per the EU model and also a common Asian Money (Asian Development Bank 2006 Summit in Hyderabad, India, see also “Asian Finance Ministers Seek Common Currency”, NY Times, May 5, 2006). As the Asian economic integration movement has recorded its share or progress, the continent of Africa cannot be far behind once her internal conflicts are resolved.

In 2002, at a continental conference in Durban, South Africa, the African Union came to be instituted, which replaced the Organization of African Unity (“OAU”), established earlier in 1963. At present, the AU has a membership of 53 sovereign nation states of the continent of Africa, with its secretariat in Addis Ababa, Ethiopia. They have set up an administrative structure with an agenda to establish one common African Money, to be managed by one common central bank, the African Central Bank (“ACB”) by 2023. The EU and the ECB remain their learning model. The progress of the African continental economic union remains to be independently reviewed. The African economies have historically been exposed to massive exploitation by imperial powers from other continents, who must acknowledge their debts to the peoples of Africa (Dutta

2007 pp 220-225), (see also <http://newsvote.bbc.co.uk/mpapps/pagetools/print/news.bbc.co.uk/>). The EU should take this opportunity to play a constructive role in restructuring the continent of Africa. The recent EU-AU summit in 2007 has certainly been a positive step.

3. The Euro: the New Currency Regime

In the 1930s, the Keynesian Revolution (Klein 1947) offered a simultaneous system of a sovereign nation state economy, and the General Theory of Employment, Interest and Money soon became a challenging reading. The euro regime elevates this idea, applying an epochal economic paradigm of supra-national macro-economics, based on one common continental economy with one common money. Lessons to learn will continue to be overwhelming.

Today, the euro and the dollar are competitive global currencies. On January 1, 1999 euro was launched at a 17% premium over dollar. Eleven EU Member States - Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain adopted the euro as their national currency after the European Council reviewed their convergence progress as outlined by the Maastricht Treaty of 1992 and recommended their membership to the European Monetary Union. Greece became a full member of the Eurozone as of January 1, 2001. The most recent addition to the Eurozone is Slovenia on January 1, 2007, followed by Malta and Cyprus on January 1, 2008. The EU-12 has now become the Eurozone-15. Be it noted that the IMF has given the ECB an observer status. May one money lead to one Europe (Issing 1996, Vanthoor 2002).

As specified in the Maastricht Treaty (1992), all members that join in the future

are obligated to adopt the euro in due course, as and when each satisfies the convergence criteria. Indeed, with the exception of Sweden, all members joining since 1994 have joined the euro regime or are making progress towards meeting the convergence criteria, to be assessed by the European Commission and the ECB.

The five convergence criteria, well specified and transparent, are:

- a. price stability, whereby the rate of inflation, as measured by consumer price level (“CPI”), is not more than 1.5 percentage points above the average rate of the three lowest rates amongst the Member States;
- b. national debt, to be no more than 60% of GDP;
- c. budget deficit, limited to 3% of GDP;
- d. durability of convergence, based on long-term interest rate, and limited to 2% above the average rate of the three lowest performing Member States; and
- e. exchange rate stability.

Sweden has avoided joining the Eurozone on a technicality: the Swedish Krona is not within the Exchange Rate Mechanism (“ERM II”), thus ineligible to be considered to join the euro regime. In a public referendum in 2003, the Swedish people handily rejected the euro. Reportedly, resistance to the euro is steadily dropping, as of November 2007 (http://www.scb.se/templates/pressinfo_222902.asp). The UK and Denmark are not obligated to join the euro regime, having negotiated exemptions from the specific terms of the Maastricht Treaty. The Danish Krone is part of the ERM II and the people have voted to keep out of the euro regime, but the government is looking to put the question to another vote as soon as 2009 to begin the process to join the Eurozone (<http://euobserver.com/9/25202>). The Pound Sterling is not part of the ERM II, but the government has continued to stress that the UK is open to joining the euro regime dependent upon the results of five economic tests that gauge the readiness of the country

to adopt the euro (http://www.hm-treasury.gov.uk./documents/international_issues/the_euro/euro_index_index.cfm). Given the fact that the UK is a member of the EU-FTA, which is one member of the WTO with one vote, we have argued that the British Pound Sterling is a sheltered currency (Dutta 2007, 2005, 2002a, 2000a).

The European Central Bank became the one common central bank to oversee and manage the monetary policy of the Eurozone. On January 1, 1999, the euro was introduced only as an accounting unit, becoming a medium of exchange on January 1, 2001. It circulated with the national currencies for another year, and thereafter, the euro became the exclusive medium of exchange of the Eurozone. The national currencies were systematically withdrawn from circulation by February 2002.

The European System of Central Banks (“ESCB”), composed of the central banks of the member states, performs functions related to the printing, minting, distribution of notes and coins and the operation of the Eurozone payment system.

Within a year of introduction, the euro depreciated to converge with dollar and continued to fluctuate below the dollar until 2002, when the last vestiges of sovereign currencies as legal tender were removed from the market. Psychological attachment to the national currencies and their joint circulation with the euro were critical factors contributing to popular resistance during this transitory period. However, as the euro became the exclusive medium of exchange of the euro regime, it rose over the dollar. Of course, international uncertainty due to the wars and related terrorism in Iraq and Afghanistan, mounting budget and trade deficits, and a burgeoning national debt in the USA have compromised the competitive value of dollar to the benefit of the euro. Uncertainty in the global market has increased the volatility of the relationship of the dollar and dollar quoted commodities, especially gold and petroleum. The management

of interest rate policy by the Federal Reserve Bank also plays a key role and forces the ECB and other major central banks to manipulate their core interest rates to offset the economic impact emanating from the US.

The euro has progressively become a global currency as Eurozone shares of world output and trade have become competitively large. In 2006, the GDP of the 13-member Eurozone stood at US\$ 10.5 trillion as compared with the USA's at US\$ 13.2 trillion; Japan with her GDP at US\$ 4.3 trillion, has become the distant third (WDI 2007, current US dollars).

As of 2008, the euro is used by several other countries in Europe outside of the EU. Even in the United Kingdom, Denmark and Sweden, the three "out" member countries of the original EU-15, euros are widely accepted in transactions. The euro has become the European currency deriving its competitive strength in the world market from the EU's share of world output. The euro is the legal currency of the French overseas possessions inclusive of the French Southern and Antarctic Lands, the Portuguese autonomous regions of the Azores and Madeira, and the Spanish Canary Islands. Bilateral arrangements for the use of the euro have been made by the Vatican City, Monaco and San Marino. Several possessions and former colonies of the EU member states have also pegged their currencies to the euro. Andorra, Montenegro, Kosovo, Akrotiri and Dhekelia also have made some special arrangement for the use of euro. It is evidently that the euro has made an extensive impact beyond the Eurozone.

4. The Euro-Dollar Currency Regimes

In November 2007, the dollar reached a record low against the euro, falling spectacularly from its high against the euro in October 2000. Indeed, the exchange rate

for one euro reached yet another historic high of US\$ 1.60 on July 15, 2008, and continuing to be competitively strong through the summer of 2008. Table 3.2 and Figure 3.2 present the average monthly exchange rates of the euro and the dollar from 1999 through 2007 and Table 3.3 and Figure 3.3 present the same information on a quarterly basis.

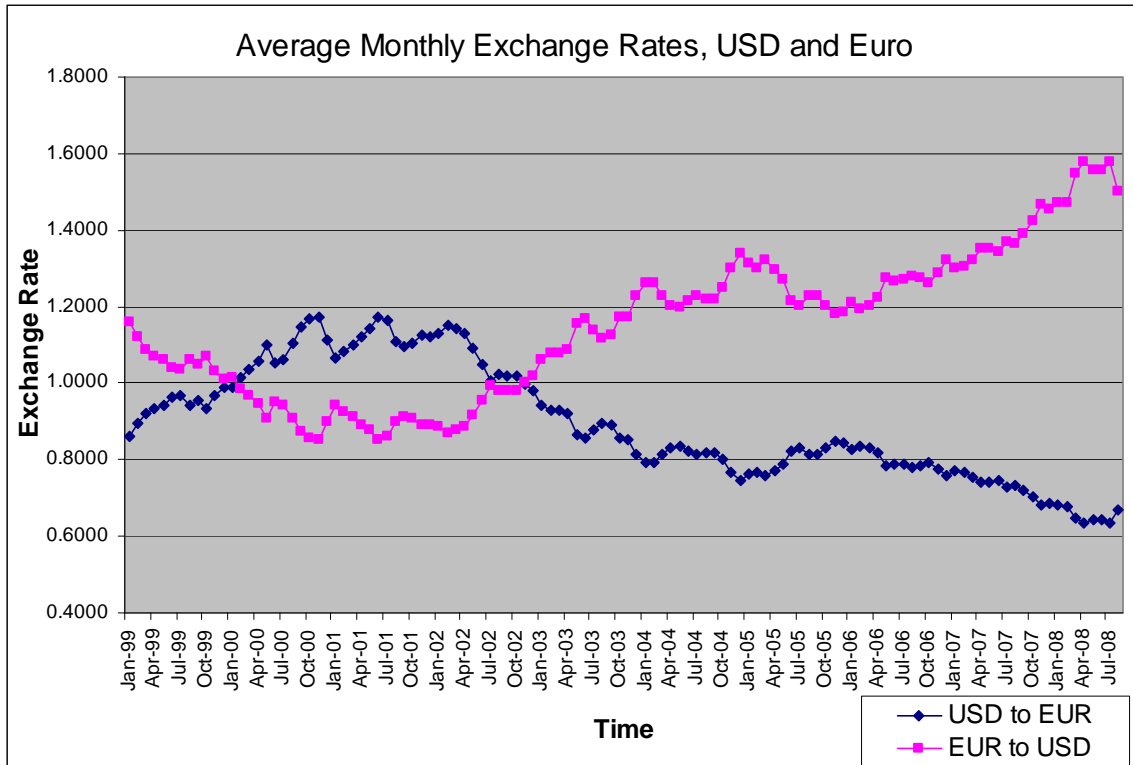
Table 3.2: Average Monthly Exchange Rates: Euro and USD

DATE	USD to EUR	EUR to USD	DATE	USD to EUR	EUR to USD
Jan-1999	0.8626	1.1599	Nov-2003	0.8541	1.1716
Feb-1999	0.8935	1.1198	Dec-2003	0.8137	1.2296
Mar-1999	0.9197	1.0879	Jan-2004	0.7940	1.2601
Apr-1999	0.9334	1.0719	Feb-2004	0.7927	1.2621
May-1999	0.9417	1.0625	Mar-2004	0.8154	1.2269
Jun-1999	0.9625	1.0395	Apr-2004	0.8327	1.2015
Jul-1999	0.9666	1.0354	May-2004	0.8335	1.2003
Aug-1999	0.9425	1.0615	Jun-2004	0.8233	1.2151
Sep-1999	0.9535	1.0494	Jul-2004	0.8149	1.2278
Oct-1999	0.9340	1.0713	Aug-2004	0.8199	1.2201
Nov-1999	0.9681	1.0336	Sep-2004	0.8194	1.2208
Dec-1999	0.9894	1.0113	Oct-2004	0.7997	1.2511
Jan-2000	0.9879	1.0131	Nov-2004	0.7692	1.3006
Feb-2000	1.0164	0.9844	Dec-2004	0.7466	1.3399
Mar-2000	1.0355	0.9663	Jan-2005	0.7611	1.3145
Apr-2000	1.0568	0.9470	Feb-2005	0.7690	1.3009
May-2000	1.1011	0.9089	Mar-2005	0.7575	1.3207
Jun-2000	1.0534	0.9499	Apr-2005	0.7727	1.2945
Jul-2000	1.0636	0.9408	May-2005	0.7878	1.2699
Aug-2000	1.1044	0.9060	Jun-2005	0.8219	1.2171
Sep-2000	1.1469	0.8727	Jul-2005	0.8306	1.2044
Oct-2000	1.1699	0.8561	Aug-2005	0.8135	1.2297
Nov-2000	1.1712	0.8546	Sep-2005	0.8150	1.2276
Dec-2000	1.1115	0.9007	Oct-2005	0.8310	1.2037
Jan-2001	1.0647	0.9400	Nov-2005	0.8483	1.1793
Feb-2001	1.0843	0.9229	Dec-2005	0.8438	1.1856
Mar-2001	1.0990	0.9109	Jan-2006	0.8273	1.2093
Apr-2001	1.1207	0.8929	Feb-2006	0.8368	1.1955
May-2001	1.1411	0.8771	Mar-2006	0.8320	1.2023
Jun-2001	1.1716	0.8540	Apr-2006	0.8169	1.2247
Jul-2001	1.1623	0.8610	May-2006	0.7836	1.2766
Aug-2001	1.1103	0.9013	Jun-2006	0.7893	1.2674
Sep-2001	1.0964	0.9126	Jul-2006	0.7872	1.2707
Oct-2001	1.1041	0.9062	Aug-2006	0.7812	1.2805
Nov-2001	1.1255	0.8891	Sep-2006	0.7851	1.2741
Dec-2001	1.1213	0.8922	Oct-2006	0.7927	1.2620
Jan-2002	1.1310	0.8847	Nov-2006	0.7777	1.2864
Feb-2002	1.1493	0.8705	Dec-2006	0.7577	1.3202
Mar-2002	1.1421	0.8759	Jan-2007	0.7694	1.3002
Apr-2002	1.1290	0.8862	Feb-2007	0.7655	1.3068
May-2002	1.0910	0.9171	Mar-2007	0.7555	1.3240
Jun-2002	1.0478	0.9552	Apr-2007	0.7409	1.3502
Jul-2002	1.0075	0.9931	May-2007	0.7396	1.3525
Aug-2002	1.0226	0.9784	Jun-2007	0.7453	1.3421
Sep-2002	1.0207	0.9801	Jul-2007	0.7297	1.3708
Oct-2002	1.0197	0.9812	Aug-2007	0.7337	1.3634
Nov-2002	0.9981	1.0023	Sep-2007	0.7204	1.3888
Dec-2002	0.9808	1.0202	Oct-2007	0.7030	1.4229
Jan-2003	0.9420	1.0621	Nov-2007	0.6819	1.4669
Feb-2003	0.9279	1.0780	Dec-2007	0.6870	1.4562
Mar-2003	0.9274	1.0788	Jan-2008	0.6803	1.4703
Apr-2003	0.9212	1.0862	Feb-2008	0.6793	1.4725
May-2003	0.8658	1.1559	Mar-2008	0.6459	1.5488
Jun-2003	0.8569	1.1677	Apr-2008	0.6345	1.5765
Jul-2003	0.8787	1.1387	May-2008	0.6427	1.5563
Aug-2003	0.8968	1.1159	Jun-2008	0.6423	1.5574

Sep-2003	0.8893	1.1253	Jul-2008	0.6337	1.5784
Oct-2003	0.8546	1.1706	Aug-2008	0.6672	1.4998

Source: Calculated based on data from Oanda, <http://www.oanda.com/convert/fxhistory>

Figure 3.2: Average Monthly Exchange Rates: Euro and USD



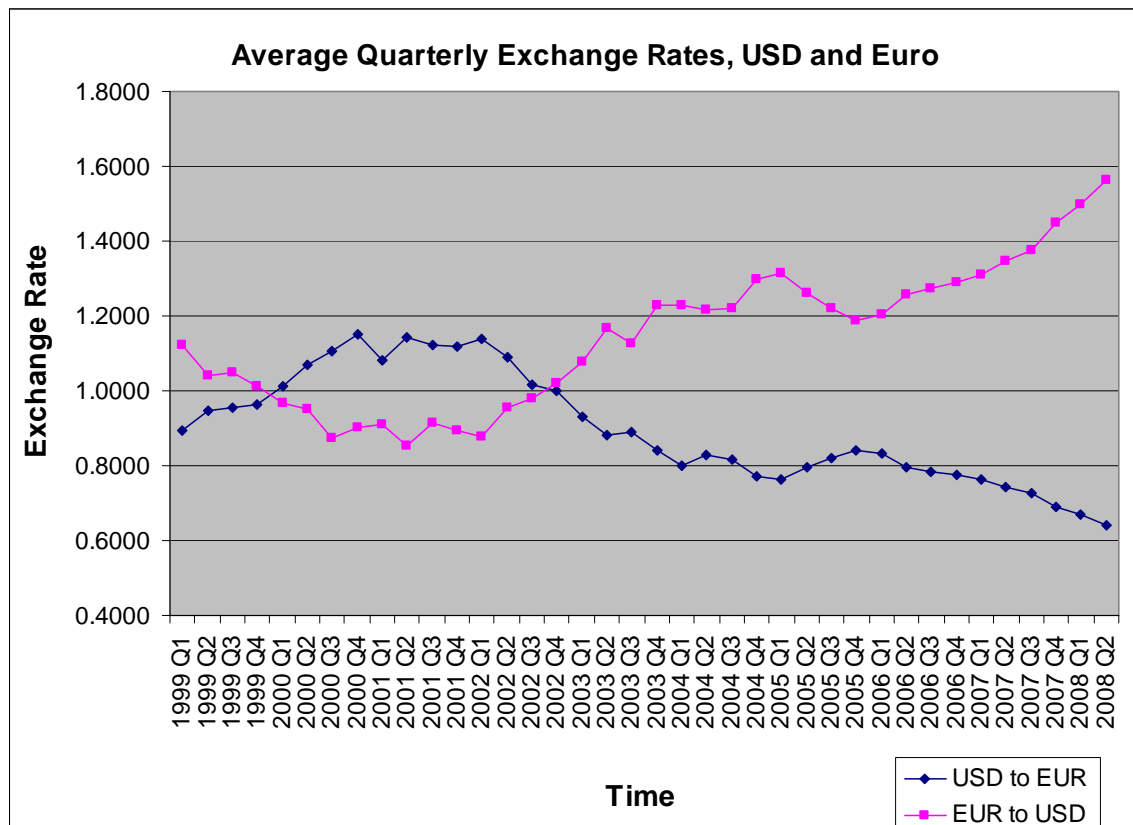
Source: Based on Table 3.2

Table 3.3: Average Quarterly Exchange Rates: Euro and USD

DATE	USD to EUR	EUR to USD	DATE	USD to EUR	EUR to USD
1999 Q1	0.8919	1.1226	2003 Q4	0.8407	1.2296
1999 Q2	0.9458	1.0395	2004 Q1	0.8009	1.2269
1999 Q3	0.9542	1.0494	2004 Q2	0.8298	1.2151
1999 Q4	0.9638	1.0113	2004 Q3	0.8180	1.2208
2000 Q1	1.0132	0.9663	2004 Q4	0.7719	1.2972
2000 Q2	1.0707	0.9499	2005 Q1	0.7623	1.3124
2000 Q3	1.1045	0.8727	2005 Q2	0.7941	1.2606
2000 Q4	1.1506	0.9007	2005 Q3	0.8197	1.2205
2001 Q1	1.0826	0.9109	2005 Q4	0.8410	1.1897
2001 Q2	1.1444	0.8540	2006 Q1	0.8319	1.2026
2001 Q3	1.1233	0.9126	2006 Q2	0.7965	1.2565
2001 Q4	1.1168	0.8922	2006 Q3	0.7845	1.2751
2002 Q1	1.1405	0.8759	2006 Q4	0.7760	1.2896
2002 Q2	1.0893	0.9552	2007 Q1	0.7634	1.3104
2002 Q3	1.0169	0.9801	2007 Q2	0.7419	1.3483
2002 Q4	0.9996	1.0202	2007 Q3	0.7280	1.3742
2003 Q1	0.9326	1.0788	2007 Q4	0.6907	1.4485
2003 Q2	0.8811	1.1677	2008 Q1	0.6683	1.4978
2003 Q3	0.8882	1.1253	2008 Q2	0.6399	1.5633

Source: Calculated based on data from Oanda, <http://www.oanda.com/convert/fxhistory>

Figure 3.3: Average Quarterly Exchange Rates: Euro and USD



Source: Based on Table 3.3

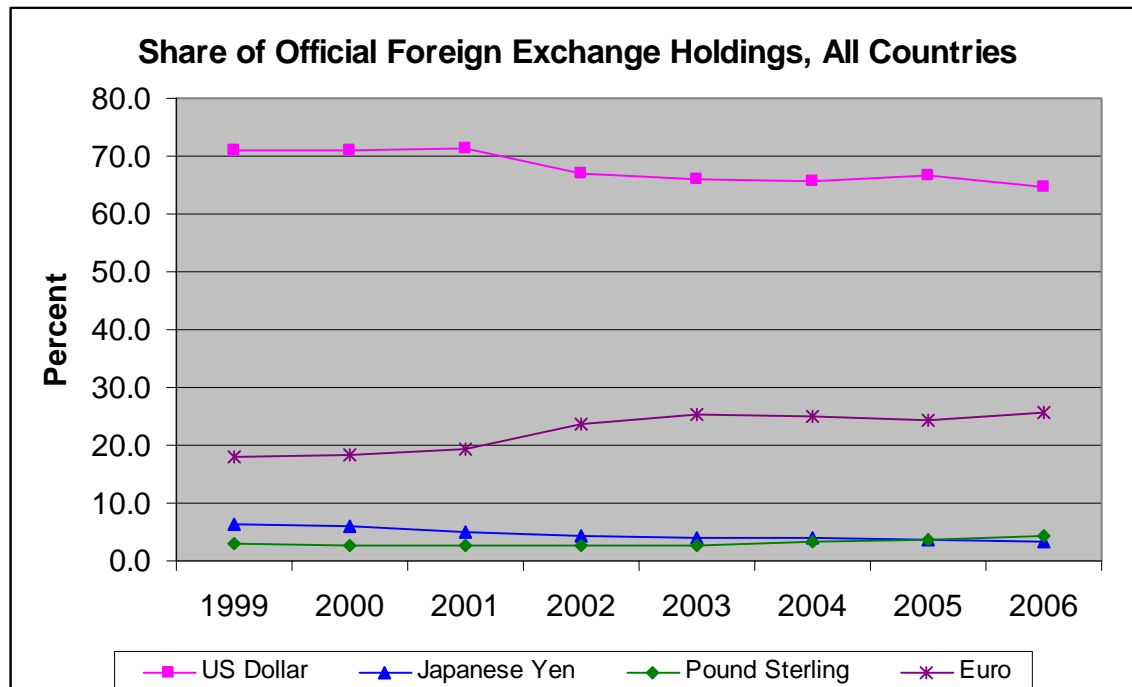
Be it noted that the new currency, indeed an eight-year old baby currency, soon became the store of value not only for the euro member countries, but also for the rest of the world. The competitive shares of official holdings of the euro and dollar merit attention. From 1999 to 2006, for all countries, the share of dollar holdings fell by nearly 9% while that of euros went up by more than 44%. Of course, the euro started from a zero base in 1999. For industrialized countries, the dollar's share fell by about 2%, while the euro's share rose by nearly 27%, and for developing countries, the dollar's share fell by over 12% while the euro's share rose by about 49% (see Table 3.4 and Figure 3.4).

Table 3.4: Percent Changes in Euro and Dollar Reserve Holdings

	US Dollar	Euro
All Countries	-8.87	44.13
Industrialized Countries	-2.18	26.71
Developing Countries	-12.59	48.74

Source: Based on Table 3.5

Figure 3.4: Share of Official Foreign Exchange Holdings, All Countries, 1999-2006



Source: Based on Table 3.5

During 2006, over one-quarter of the global allocated foreign exchange holdings were in euros, compared to less than 18% in 1999. Over the same period, industrialized and developing countries have both increased their euro holdings from 16% to 20%, and some 20% to 30%, respectively (see Table 3.5).

Table 3.5: Share of Official Foreign Exchange Holdings in Selected Currencies (End of Year)

Currency	1999	2000	2001	2002	2003	2004	2005	2006
All Countries								
US Dollar	71.0	71.1	71.5	67.0	65.9	65.8	66.7	64.7
Japanese Yen	6.4	6.1	5.1	4.4	3.9	3.9	3.6	3.2
Pound Sterling	2.9	2.8	2.7	2.8	2.8	3.4	3.6	4.4
Euro	17.9	18.3	19.2	23.8	25.2	24.9	24.2	25.8
Industrialized Countries								
US Dollar	73.5	72.7	72.7	68.9	70.5	71.5	73.6	71.9
Japanese Yen	6.7	6.3	5.5	4.3	3.8	3.6	3.4	3.5
Pound Sterling	2.2	2.0	1.9	2.1	1.5	1.9	2.1	2.5
Euro	16.1	17.0	17.9	22.3	21.9	20.8	19.0	20.4
Developing Countries								
US Dollar	68.3	69.4	70.2	65.2	61.3	60.2	61.0	59.7
Japanese Yen	6.1	5.8	4.6	4.4	4.0	4.1	3.7	2.9
Pound Sterling	3.7	3.5	3.5	3.5	4.0	4.9	4.9	5.8
Euro	19.9	19.7	20.5	25.3	28.5	29.0	28.5	29.6

Source: IMF Annual Report 2007

The euro is the second most actively traded currency in foreign exchange markets, with its share at about 40%. At the end of 2006, the share of euro in international debt markets reached as high as 33% when US dollar's share remained at 44%. The euro has earned its rightful place as a world currency, integrating a continental economy that now claims the largest share of the world's GDP (see Figure 3.7).

It is instructive to note that Germany, France, UK, Italy, Spain and the Netherlands apart, the other economies of the EU each have less than one percent of world GDP. Germany, the largest economy of the EU, has a world share of just 6.26%, far behind the USA. One must recall that Jean Monnet forcefully argued that individually no European country could deliver the economic prosperity due to its people.

Together, the EU with its competitive share of the world output has become a competitive actor in the world market and helps optimize the economic gains for the people of Europe. The USA will need to work hard to preserve its overwhelmingly large share of world GDP to retain its superpower status in the global economy.

5. The Competitive Shares of World GDP: EU-27, USA, AE-22 and Eurozone

Table 3.6, Table 3.7, Figure 3.5, and Figure 3.6 present the comparative picture of the EU-27 and AE-22. Individually, only six of the EU-27 enjoy more than one percent share of the world GDP. For the AE-22, only Japan, China, India and Korea record individual shares of world-GDP above one percent. As many as eighteen other member economies of the AE-22 have individual shares of less than one percent of the world GDP. Table 3.8 and Figure 3.7 summarize the regional shares of the EU-27, the AE-22, the USA and the Eurozone, each region with a competitively large share of its own.

Table 3.9 presents a historical profile of the growth of GDP of the EU-27, while Table 3.10 does the same for the GDP of the AE-22. During the period from 1990-2006, the output of the EU has almost doubled, and the Union has nearly a 30% share of world GDP. During this time, the output of the AE has grown 140% and these economies collectively control over 22% of world GDP.

Table 3.6: The EU-27 vis-à-vis the AE-22: Shares of World GDP, Current US \$ billion, 1990

Country	GDP	Share	Country	GDP	Share
Austria	164.98	0.76%	Bangladesh	30.13	0.14%
Belgium	202.69	0.93%	Bhutan	0.30	0.00%
Bulgaria	20.73	0.10%	Brunei	3.59	0.02%
Cyprus	5.59	0.03%	Cambodia	1.11	0.01%
Czech Republic	34.88	0.16%	China [^]	431.53	1.98%
Denmark	135.84	0.62%	India	316.94	1.45%
Estonia	5.01	0.02%	Indonesia	114.43	0.52%
Finland	138.23	0.63%	Japan	3,018.11	13.85%
France	1,239.26	5.69%	Korea, Rep.	263.78	1.21%
Germany	1,707.38	7.83%	Lao PDR	0.87	0.00%
Greece	85.93	0.39%	Malaysia	44.02	0.20%
Hungary	33.06	0.15%	Maldives	0.22	0.00%
Ireland	47.85	0.22%	Mongolia		
Italy	1,133.41	5.20%	Myanmar*	2.79	0.01%
Latvia	7.45	0.03%	Nepal	3.63	0.02%
Lithuania	10.51	0.05%	Pakistan	40.01	0.18%
Luxembourg	12.67	0.06%	Philippines	44.31	0.20%
Malta	2.31	0.01%	Singapore	36.84	0.17%
Netherlands	307.38	1.41%	Sri Lanka	8.03	0.04%
Poland	58.98	0.27%	Chinese Taipei*	164.79	0.76%
Portugal	75.27	0.35%	Thailand	85.34	0.39%
Romania	38.30	0.18%	Vietnam	6.47	0.03%
Slovak Republic	15.48	0.07%	Total AE-22	4,617.24	21.18%
Slovenia	17.38	0.08%			
Spain	520.97	2.39%	Eurozone (EU-13)	5,653.41	25.94%
Sweden	242.18	1.11%	United States	5,757.20	26.41%
United Kingdom	989.52	4.54%	World	21,796.08	100.00%
Total EU-27	7,253.25	33.28%			

Source: World Development Indicators, 2007

* Source: World Economic Outlook, October 2007

[^] China data includes Hong Kong

Table 3.7: The EU-27 vis-à-vis the AE-22: Shares of World GDP, Current US \$ billion, 2006

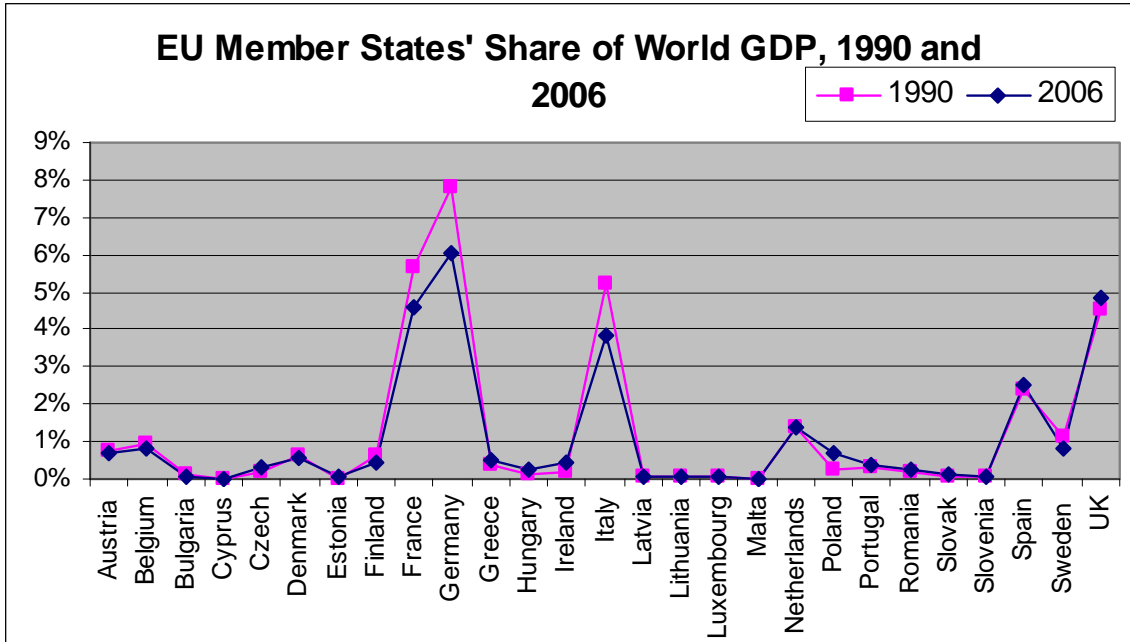
Country	GDP	Share	Country	GDP	Share
Austria	322.44	0.67%	Bangladesh	61.96	0.13%
Belgium	392.00	0.81%	Bhutan	0.93	0.00%
Bulgaria	31.48	0.07%	Brunei		
Cyprus			Cambodia	7.19	0.01%
Czech Republic	141.80	0.29%	China [^]	2,857.87	5.92%
Denmark	275.24	0.57%	India	906.27	1.88%
Estonia	16.41	0.03%	Indonesia	364.46	0.76%
Finland	209.44	0.43%	Japan	4,340.13	9.00%
France	2,230.72	4.62%	Korea, Rep.	888.02	1.84%
Germany	2,906.68	6.02%	Lao PDR	3.40	0.01%
Greece	244.95	0.51%	Malaysia	148.94	0.31%
Hungary	112.90	0.23%	Maldives	0.92	0.00%
Ireland	222.65	0.46%	Mongolia	2.69	0.01%
Italy	1,844.75	3.82%	Myanmar*	13.12	0.03%
Latvia	20.12	0.04%	Nepal	8.05	0.02%
Lithuania	29.79	0.06%	Pakistan	128.83	0.27%
Luxembourg	41.38	0.09%	Philippines	116.93	0.24%
Malta			Singapore	132.16	0.27%
Netherlands	657.59	1.36%	Sri Lanka	26.97	0.06%
Poland	338.73	0.70%	Chinese Taipei*	364.56	0.76%
Portugal	192.57	0.40%	Thailand	206.25	0.43%
Romania	121.61	0.25%	Vietnam	60.88	0.13%
Slovak Republic	55.05	0.11%	Total AE-22	10,640.54	22.06%
Slovenia	37.30	0.08%	EU-27	14,399.55	29.85%
Spain	1,223.99	2.54%	Eurozone (EU-13)	10,526.48	21.82%
Sweden	384.93	0.80%	United States	13,201.82	27.36%
United Kingdom	2,345.02	4.86%	World	48,244.88	100.00%
Total EU-27	14,399.55	29.85%			

Source: World Development Indicators, 2007

* Source: World Economic Outlook, October 2007

[^] China data includes Hong Kong

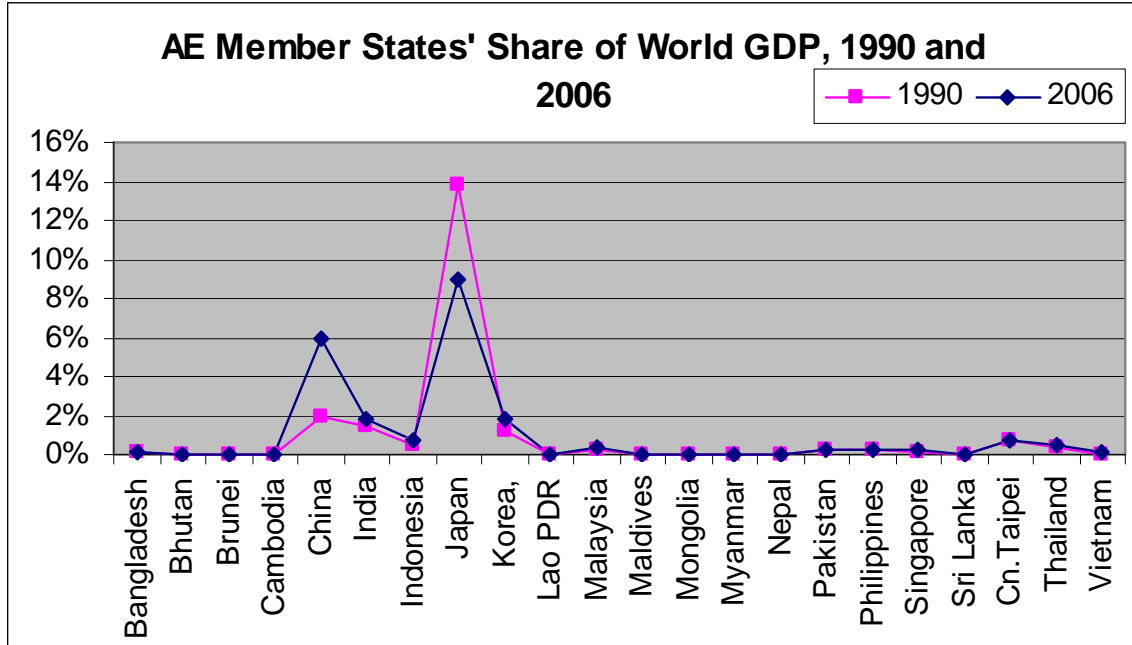
Figure 3.5: EU Member States' Share of World GDP, 1990 and 2006



Source: Based on

Table 3.9 presents a historical profile of the growth of GDP of the EU-27, while Table 3.10 does the same for the GDP of the AE-22. During the period from 1990-2006, the output of the EU has almost doubled, and the Union has nearly a 30% share of world GDP. During this time, the output of the AE has grown 140% and these economies collectively control over 22% of world GDP.

Figure 3.6: AE Member States' Share of World GDP, 1990 and 2006



Source: Based on

Table 3.9 presents a historical profile of the growth of GDP of the EU-27, while Table 3.10 does the same for the GDP of the AE-22. During the period from 1990-2006, the output of the EU has almost doubled, and the Union has nearly a 30% share of world GDP. During this time, the output of the AE has grown 140% and these economies collectively control over 22% of world GDP.

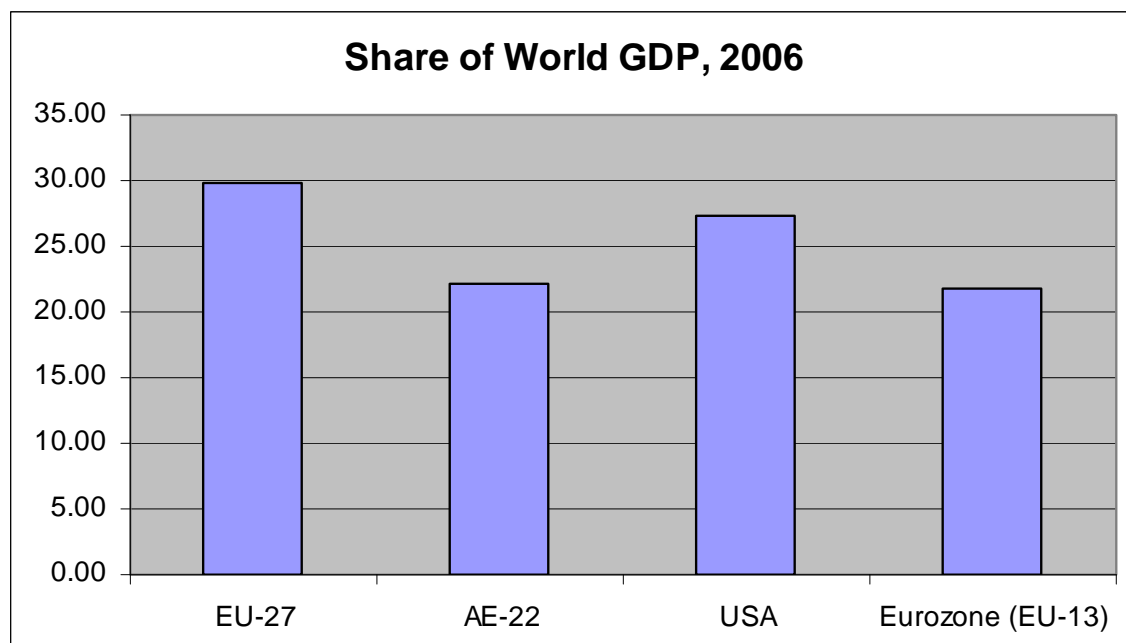
Table 3.6 and Table 3.7

Table 3.8: EU, AE-22, USA and Eurozone Share of World GDP, 2006

Economic Region	Share of World GDP
EU-27	29.85
AE-22	22.06
USA	27.36
Eurozone (EU-13)	21.82

Source: Based on Table 3.10.

Figure 3.7: EU, AE-22, USA and Eurozone Share of World GDP, 2006



Source: Based on Table 3.8

Table 3.9 presents a historical profile of the growth of GDP of the EU-27, while Table 3.10 does the same for the GDP of the AE-22. During the period from 1990-2006, the output of the EU has almost doubled, and the Union has nearly a 30% share of world GDP. During this time, the output of the AE has grown 140% and these economies collectively control over 22% of world GDP.

Table 3.9: GDP of the EU-27 (current US\$, in billions)

Country	1960	1970	1980	1990	2000	2006
Austria	6.59	15.24	81.18	164.98	193.84	322.44
Belgium	11.66	26.36	125.20	202.69	231.93	392.00
Bulgaria			20.04	20.73	12.60	31.48
Cyprus			2.15	5.59	9.15	
Czech Republic				34.88	56.72	141.80
Denmark	6.25	16.59	69.73	135.84	160.08	275.24
Estonia				5.01	5.62	16.41
Finland	5.19	11.17	52.76	138.23	120.56	209.44
France	63.34	148.61	689.01	1,239.26	1,327.96	2,230.72
Germany			912.54	1,707.38	1,900.22	2,906.68
Greece	4.06	11.53	49.88	85.93	114.60	244.95
Hungary		5.54	22.16	33.06	47.96	112.90
Ireland	1.94	4.27	21.11	47.85	96.17	222.65
Italy	40.39	109.25	459.83	1,133.41	1,097.34	1,844.75
Latvia				7.45	7.83	20.12
Lithuania				10.51	11.42	29.79
Luxembourg	0.70	1.45	5.97	12.67	20.27	41.38
Malta	0.13	0.23	1.13	2.31	3.87	
Netherlands	12.82	36.91	185.77	307.38	386.51	657.59
Poland				58.98	171.32	338.73
Portugal	3.19	7.75	31.46	75.27	112.65	192.57
Romania				38.30	37.05	121.61
Slovak Republic				15.48	20.37	55.05
Slovenia				17.38	19.31	37.30
Spain	12.07	39.80	226.00	520.97	580.67	1,223.99
Sweden	14.69	35.07	130.79	242.18	242.00	384.93
United Kingdom	72.27	123.63	536.13	989.52	1,442.85	2,345.02
Total EU-27	255.30	593.40	3,622.85	7,253.25	8,430.90	14,399.55
% of World	18.9%	20.6%	33.0%	33.3%	26.5%	29.8%
% Growth		132.4%	510.5%	100.2%	16.2%	70.8%
Eurozone (EU-13)	161.95	412.35	2,840.71	5,653.41	6,202.05	10,526.48
% of World	12.0%	14.3%	25.9%	25.9%	19.5%	21.8%
% Growth		154.6%	588.9%	99.0%	9.7%	69.7%
United States	520.53	1,025.00	2,768.90	5,757.20	9,764.80	13,201.82
% of World	38.6%	35.5%	25.2%	26.4%	30.7%	27.4%
% Growth		96.9%	170.1%	107.9%	69.6%	35.2%
World	1,348.30	2,885.45	10,978.45	21,796.08	31,800.23	48,244.88
% Growth		114.0%	280.5%	98.5%	45.9%	51.7%

Source: World Development Indicators, 2007

Table 3.10: GDP of the AE-22 (current US\$, in billions)

Country	1960	1970	1980	1990	2000	2006
Bangladesh		8.99	18.11	30.13	47.10	61.96
Bhutan			0.13	0.30	0.45	0.93
Brunei		0.18	4.93	3.59	4.32	
Cambodia	0.64	0.72		1.11	3.67	7.19
China [^]	62.70	95.30	217.06	431.53	1,367.23	2,857.87
India	36.15	60.44	181.77	316.94	460.20	906.27
Indonesia		9.66	78.01	114.43	165.02	364.46
Japan	44.31	202.96	1,055.21	3,018.11	4,649.62	4,340.13
Korea, Rep.	3.89	8.90	63.83	263.78	511.66	888.02
Lao PDR				0.87	1.73	3.40
Malaysia		4.28	24.94	44.02	90.32	148.94
Maldives			0.04	0.22	0.62	0.92
Mongolia					0.94	2.69
Myanmar*			6.26	2.79	8.91	13.12
Nepal	0.52	0.87	1.95	3.63	5.49	8.05
Pakistan	3.71	10.03	23.69	40.01	73.32	128.83
Philippines	6.94	6.69	32.45	44.31	75.91	116.93
Singapore	0.65	1.90	11.73	36.84	92.72	132.16
Sri Lanka	1.50	2.30	4.02	8.03	16.33	26.97
Chinese Taipei*			42.29	164.79	321.37	364.56
Thailand	2.76	7.09	32.35	85.34	122.73	206.25
Vietnam				6.47	31.17	60.88
Total AE-22	163.76	420.28	1,798.77	4,617.24	8,050.82	10,640.54
% of World	12.1%	14.6%	16.4%	21.2%	25.3%	22.1%
% Growth		156.6%	328.0%	156.7%	74.4%	32.2%
Total EU-27	255.30	593.40	3,622.85	7,253.25	8,430.90	14,399.55
% of World	18.9%	20.6%	33.0%	33.3%	26.5%	29.8%
% Growth		132.4%	510.5%	100.2%	16.2%	70.8%
Eurozone (EU-13)	161.95	412.35	2,840.71	5,653.41	6,202.05	10,526.48
% of World	12.0%	14.3%	25.9%	25.9%	19.5%	21.8%
% Growth		154.6%	588.9%	99.0%	9.7%	69.7%
United States	520.53	1,025.00	2,768.90	5,757.20	9,764.80	13,201.82
% of World	38.6%	35.5%	25.2%	26.4%	30.7%	27.4%
% Growth		96.9%	170.1%	107.9%	69.6%	35.2%
World	1,348.30	2,885.45	10,978.45	21,796.08	31,800.23	48,244.88
% Growth		114.0%	280.5%	98.5%	45.9%	51.7%

Source: World Development Indicators, 2007

* Source: World Economic Outlook, October 2007

[^] China data includes Hong Kong

6. The Regional Population Bases:

A comparative review of the population base of each continental economy warrants an analysis. For each continental economy, population as the base for supply of labor impacts on aggregate supply function, and consumption by the people defines the aggregate demand function. Table 3.11, Table 3.12 and Table 3.13 offer the data for specific time periods for the EU-27, the AE-22, the Euro-Regime and the USA plus their percentage shares for 2006. To sum up, in 2006, the AE-22 inclusive of China and India, each with its billion-plus population, is the home for some 55% of the world population. The EU-27 with its 7.6% of the world population has the second largest population base (with the Euro-regime at 4.9%); the USA with its share of 6.2% of the world population ranks next to the EU-27. The population distribution of these three regions has been notably different. Consequently, the economic impact of the AE will be overwhelmingly dominant in the coming decades, both in terms of aggregate demand for goods and services and aggregate supply of labor. Figure 3.8 presents the situation with much focus.

Table 3.11: Population of EU-27 (in millions)

Country	1980	1990	2000	2006
Austria	7.55	7.68	8.01	8.26
Belgium	9.86	9.98	10.26	10.58
Bulgaria	8.86	8.72	8.00	7.69
Cyprus	0.51	0.58	0.69	0.77
Czech Republic	10.28	10.31	10.22	10.27
Denmark	5.12	5.14	5.33	5.43
Estonia			1.37	1.35
Finland	4.78	4.99	5.18	5.25
France	53.73	56.71	59.05	61.35
Germany	76.85	78.96	82.26	82.29
Greece	9.64	10.16	10.98	11.12
Hungary	10.71	10.38	10.22	10.08
Ireland	3.40	3.51	3.79	4.24
Italy	56.39	56.69	57.04	58.28
Latvia			2.38	2.30
Lithuania			3.51	3.39
Luxembourg	0.36	0.38	0.44	0.46
Malta	0.33	0.36	0.39	0.40
Netherlands	14.15	14.95	15.93	16.35
Poland	35.58	38.20	38.45	38.14
Portugal	9.77	9.88	10.21	10.59
Romania	22.20	23.21	22.12	21.64
Slovak Republic			5.39	5.41
Slovenia			1.99	2.01
Spain	37.56	38.89	40.50	44.14
Sweden	8.32	8.59	8.88	9.11
United Kingdom	56.33	57.24	58.89	60.53
Total EU-27	442.29	455.47	481.49	491.42
% of World	11.0%	9.1%	8.1%	7.6%
% Growth		3.0%	5.7%	2.1%
Eurozone (EU-13)	284.05	292.77	305.64	314.91
% of World	7.0%	5.9%	5.1%	4.9%
% Growth		3.1%	4.4%	3.0%
United States	227.62	250.05	282.33	299.72
% of World	5.6%	5.0%	4.7%	4.6%
% Growth		9.9%	12.9%	6.2%
World	4,032.67	4,990.42	5,964.25	6,445.73
% Growth		23.7%	19.5%	8.1%

Source: World Economic Outlook, October 2007

Note: World total calculated

Table 3.12: Population of AE-22 (in millions)

Country	1980	1990	2000	2006
Bangladesh	88.86	113.05	139.43	156.12
Bhutan	0.46	0.58	0.69	0.78
Brunei Darussalam			0.33	0.38
Cambodia		8.49	12.68	14.16
China [^]	992.11	1,149.08	1,274.14	1,321.00
India	673.00	835.00	1,015.00	1,113.00
Indonesia	148.04	179.83	205.13	222.05
Japan	116.77	123.44	126.83	127.75
Korea	38.12	42.87	47.01	48.30
Lao PDR	3.17	4.13	5.28	6.03
Malaysia	13.76	18.10	23.50	26.39
Maldives	0.15	0.21	0.29	0.35
Mongolia		2.07	2.39	2.59
Myanmar	33.59	40.79	50.13	56.51
Nepal	14.00	18.90	22.26	23.59
Pakistan	82.43	108.40	137.53	155.40
Philippines	48.32	61.50	76.35	86.97
Singapore	2.41	3.05	4.02	4.42
Sri Lanka	14.60	16.27	18.47	19.77
Chinese Taipei	17.87	20.40	22.28	22.88
Thailand	46.50	56.41	62.40	65.76
Vietnam	54.18	66.02	77.64	84.40
Total AE-22	2,388.35	2,868.59	3,323.75	3,558.59
% of World	59.2%	57.5%	55.7%	55.2%
% Growth		20.1%	15.9%	7.1%
Total EU-27	442.29	455.47	481.49	491.42
% of World	11.0%	9.1%	8.1%	7.6%
% Growth		3.0%	5.7%	2.1%
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% Growth		9.9%	12.9%	6.2%
World	4,032.67	4,990.42	5,964.25	6,445.73
% Growth		23.7%	19.5%	8.1%

Source: World Economic Outlook, October 2007

[^] China data includes Hong Kong

Note: World total calculated

Table 3.13: Population (in millions), Share of World, Selected Countries, 2006

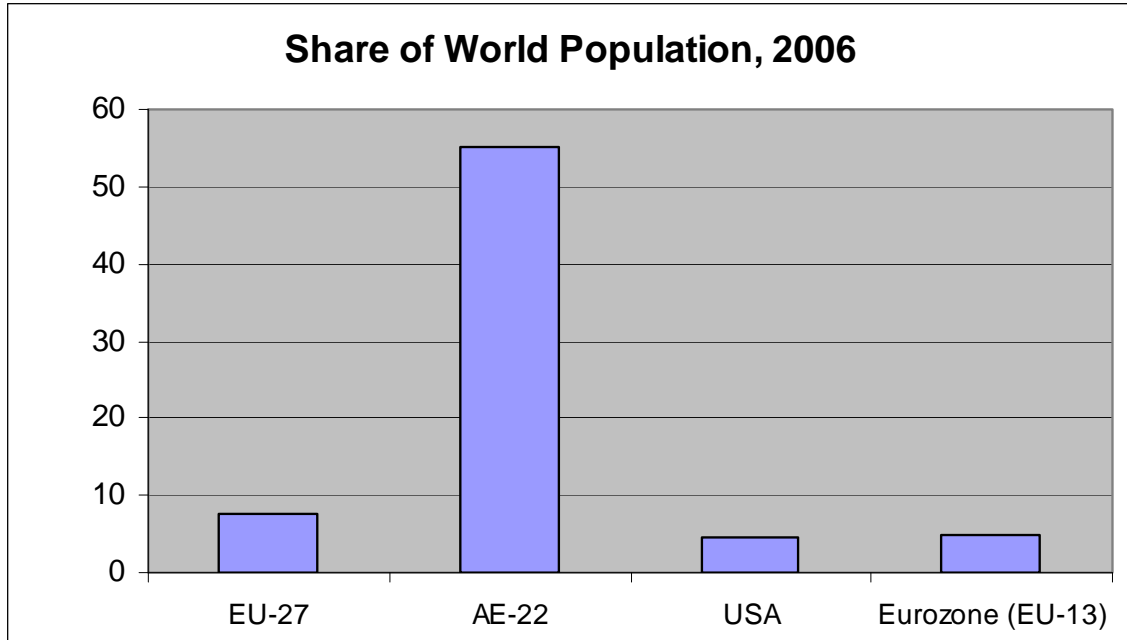
Country	Population	Share	Country	Population	Share
Austria	8.26	0.13%	Bangladesh	156.12	2.42%
Belgium	10.58	0.16%	Bhutan	0.78	0.01%
Bulgaria	7.69	0.12%	Brunei Darussalam	0.38	0.01%
Cyprus	0.77	0.01%	Cambodia	14.16	0.22%
Czech Republic	10.27	0.16%	China [^]	1,321.00	20.49%
Denmark	5.43	0.08%	India	1,113.00	17.27%
Estonia	1.35	0.02%	Indonesia	222.05	3.44%
Finland	5.25	0.08%	Japan	127.75	1.98%
France	61.35	0.95%	Korea	48.30	0.75%
Germany	82.29	1.28%	Lao PDR	6.03	0.09%
Greece	11.12	0.17%	Malaysia	26.39	0.41%
Hungary	10.08	0.16%	Maldives	0.35	0.01%
Ireland	4.24	0.07%	Mongolia	2.59	0.04%
Italy	58.28	0.90%	Myanmar	56.51	0.88%
Latvia	2.30	0.04%	Nepal	23.59	0.37%
Lithuania	3.39	0.05%	Pakistan	155.40	2.41%
Luxembourg	0.46	0.01%	Philippines	86.97	1.35%
Malta	0.40	0.01%	Singapore	4.42	0.07%
Netherlands	16.35	0.25%	Sri Lanka	19.77	0.31%
Poland	38.14	0.59%	Chinese Taipei	22.88	0.35%
Portugal	10.59	0.16%	Thailand	65.76	1.02%
Romania	21.64	0.34%	Vietnam	84.40	1.31%
Slovak Republic	5.41	0.08%	Total AE-22	3,558.59	55.21%
Slovenia	2.01	0.03%			
Spain	44.14	0.68%	Eurozone (EU-13)	314.91	4.89%
Sweden	9.11	0.14%	United States	299.72	4.65%
United Kingdom	60.53	0.94%	World	6,445.73	100.00%
Total EU-27	491.42	7.62%			

Source: World Economic Outlook, October 2007

[^] China data includes Hong Kong

Note: World total calculated

Figure 3.8: EU, AE-22, USA and Eurozone Share of World Population, 2006



Source: Based on Table 3.13

7. Shares of World Trade

We follow up with the discussion of world trade: shares of world trade, exports and imports, of the USA, EU and AE. Table 3.14, Table 3.15, Table 3.16, Table 3.17, and Figure 3.9 present the trade data for the EU-27, Eurozone and USA. Table 3.18, Table 3.19, Table 3.20, Table 3.21, and Figure 3.10 present the trade data for the AE-22. When these sets of data are reviewed in conjunction, it becomes clear that the industrialization of Asia has made a direct impact on the trade patterns of the EU and USA. Figure 3.11 is a graphical exposition of the overall picture of the exports and imports of the EU-27, AE-22, and USA, with a disaggregation for the Eurozone.

Table 3.14: EU, Eurozone and USA: Exports of Goods and Services (current US\$, in millions)

	1960	1970	1980	1990	2000	2005
Austria	1,532.0	4,468.8	27,472.0	62,262.4	88,147.8	162,791.0
Belgium	4,422.7	13,381.9	70,635.3	141,025.5	196,371.0	323,302.9
Bulgaria			7,141.6	6,855.7	7,018.5	16,210.3
Cyprus			973.1	2,878.9		
Czech Republic				15,778.0	35,933.2	88,947.6
Denmark	2,034.6	4,689.1	23,277.8	50,529.1	74,550.6	125,997.2
Estonia					4,798.5	10,953.6
Finland	1,099.2	2,710.5	16,501.4	30,950.2	51,667.2	74,735.9
France	9,011.9	23,133.0	144,689.8	264,600.3	379,916.6	555,854.2
Germany			182,423.0	420,432.2	634,153.1	1,119,389.3
Greece	347.9	1,083.2	11,527.1	15,175.2	28,788.8	46,798.3
Hungary		1,669.4	8,678.6	10,308.8	34,582.3	73,042.1
Ireland	572.7	1,463.7	9,695.6	27,142.7	94,823.1	
Italy	5,049.0	17,226.2	96,776.9	217,228.3	297,611.5	463,243.6
Latvia				3,554.4	3,260.6	7,655.9
Lithuania				5,469.4	5,108.2	14,972.5
Luxembourg	624.5	1,325.7	5,435.9	12,894.7	30,449.9	57,702.0
Malta	79.1	113.3	1,028.0	1,969.0	3,586.1	3,967.0
Netherlands	6,347.6	16,751.6	98,963.4	172,540.7	269,362.9	444,415.2
Poland				16,902.6	46,367.5	112,669.6
Portugal	456.3	1,582.9	7,222.5	23,472.9	33,628.0	52,234.7
Romania				6,406.4	12,194.1	32,550.3
Slovak Republic				4,114.7	14,339.9	36,629.6
Slovenia				15,792.1	10,727.8	22,219.8
Spain	1,012.4	4,951.3	33,121.7	84,017.7	168,688.9	284,426.7
Sweden	3,304.8	8,297.0	38,292.6	72,096.5	111,166.2	173,945.4
United Kingdom	14,621.4	27,654.8	145,462.0	237,839.8	403,722.0	574,705.3
EU-27	50,516.2	130,502.3	929,318.1	1,922,237.9	3,040,964.3	4,879,359.9
Eurozone (EU-13)	30,476.3	88,078.7	704,464.6	1,487,534.7	2,284,336.6	3,607,113.5
United States	27,030.2	59,991.2	280,911.5	552,668.7	1,095,761.1	
World	164,004.1	387,761.7	2,064,630.7	4,143,305.8	7,830,651.4	

Source: Based on data from World Development Indicators, 2007

Note: Data for Europe is not adjusted for intra-regional trade.

Table 3.15: EU, Eurozone and USA: World Share of Exports of Goods and Services

	1960	1970	1980	1990	2000
Austria	0.93%	1.15%	1.33%	1.50%	1.13%
Belgium	2.70%	3.45%	3.42%	3.40%	2.51%
Bulgaria			0.35%	0.17%	0.09%
Cyprus			0.05%	0.07%	
Czech Republic				0.38%	0.46%
Denmark	1.24%	1.21%	1.13%	1.22%	0.95%
Estonia					0.06%
Finland	0.67%	0.70%	0.80%	0.75%	0.66%
France	5.49%	5.97%	7.01%	6.39%	4.85%
Germany			8.84%	10.15%	8.10%
Greece	0.21%	0.28%	0.56%	0.37%	0.37%
Hungary		0.43%	0.42%	0.25%	0.44%
Ireland	0.35%	0.38%	0.47%	0.66%	1.21%
Italy	3.08%	4.44%	4.69%	5.24%	3.80%
Latvia				0.09%	0.04%
Lithuania				0.13%	0.07%
Luxembourg	0.38%	0.34%	0.26%	0.31%	0.39%
Malta	0.05%	0.03%	0.05%	0.05%	0.05%
Netherlands	3.87%	4.32%	4.79%	4.16%	3.44%
Poland				0.41%	0.59%
Portugal	0.28%	0.41%	0.35%	0.57%	0.43%
Romania				0.15%	0.16%
Slovak Republic				0.10%	0.18%
Slovenia				0.38%	0.14%
Spain	0.62%	1.28%	1.60%	2.03%	2.15%
Sweden	2.02%	2.14%	1.85%	1.74%	1.42%
United Kingdom	8.92%	7.13%	7.05%	5.74%	5.16%
EU-27	30.80%	33.66%	45.01%	46.39%	38.83%
Eurozone (EU-13)	18.58%	22.71%	34.12%	35.90%	29.17%
United States	16.48%	15.47%	13.61%	13.34%	13.99%

Source: Based on data from World Development Indicators, 2007

Note: Data for Europe is not adjusted for intra-regional trade.

Table 3.16: EU, Eurozone and USA: Imports of Goods and Services (current US\$, in millions)

	1960	1970	1980	1990	2000	2005
Austria	1,533.0	4,355.3	29,497.5	60,797.8	85,468.7	146,252.3
Belgium	4,504.6	12,737.0	74,643.5	137,057.5	189,567.9	314,608.3
Bulgaria			6,137.7	7,602.7	7,693.1	20,623.3
Cyprus			1,355.9	3,192.3		
Czech Republic				14,858.4	37,645.7	86,572.0
Denmark	2,152.1	5,287.5	24,594.7	44,273.4	64,893.7	113,769.0
Estonia					5,003.0	11,792.6
Finland	1,166.9	2,923.4	17,337.2	33,447.7	40,829.3	67,853.2
France	7,914.3	22,908.6	159,022.0	281,325.0	367,907.3	576,198.9
Germany			228,384.4	424,057.1	627,474.4	980,261.5
Greece	615.4	1,920.4	13,821.1	23,875.6	41,338.4	63,059.9
Hungary		1,797.6	9,157.8	9,444.3	36,321.4	74,569.2
Ireland	684.2	1,817.4	12,587.8	24,819.1	81,746.9	
Italy	5,196.7	16,947.1	109,116.5	215,020.1	287,322.5	464,132.2
Latvia				3,652.2	3,811.2	9,957.4
Lithuania				6,370.5	5,824.6	16,781.6
Luxembourg	486.0	1,031.7	5,004.0	11,204.9	26,185.3	49,561.9
Malta	94.3	181.6	1,089.6	2,284.9	3,967.6	4,550.0
Netherlands	6,198.3	17,469.9	100,497.0	159,964.9	247,201.0	393,245.3
Poland				12,689.4	57,343.3	113,706.2
Portugal	611.7	1,972.5	10,903.7	28,534.8	45,933.1	68,433.3
Romania				10,027.0	14,282.8	42,792.9
Slovak Republic				5,508.6	14,845.6	39,035.5
Slovenia				13,664.2	11,397.9	22,407.4
Spain	834.4	5,310.2	38,036.0	100,967.8	186,862.0	342,939.4
Sweden	3,412.0	8,538.4	40,973.2	71,862.6	96,915.8	146,337.5
United Kingdom	15,623.3	26,602.9	133,477.8	263,367.0	432,791.6	660,019.6
EU-27	51,027.1	131,801.5	1,015,637.6	1,969,869.9	3,020,574.0	4,829,460.5
Eurozone (EU-13)	29,745.3	89,393.6	798,850.7	1,514,736.5	2,239,234.6	3,488,953.7
United States	22,839.5	56,072.2	293,916.7	630,606.5	1,475,074.7	
World	165,798.4	381,971.0	2,179,772.1	4,200,297.6	7,875,505.3	

Source: Based on data from World Development Indicators, 2007

Note: Data for Europe is not adjusted for intra-regional trade.

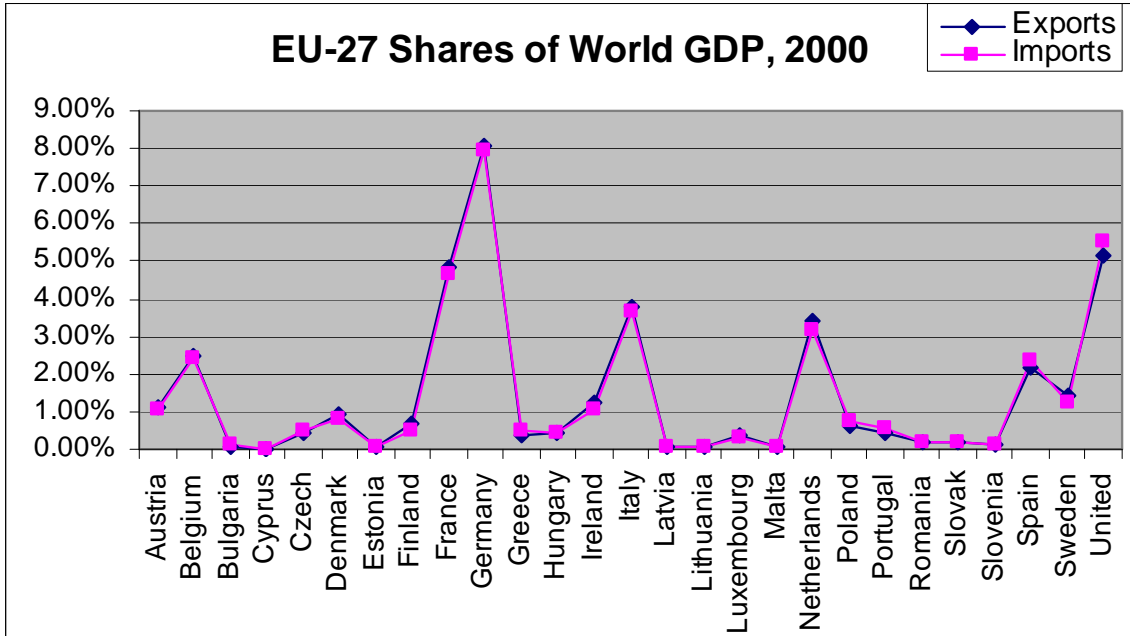
Table 3.17: EU, Eurozone and USA: World Share of Imports of Goods and Services

	1960	1970	1980	1990	2000
Austria	0.92%	1.14%	1.35%	1.45%	1.09%
Belgium	2.72%	3.33%	3.42%	3.26%	2.41%
Bulgaria			0.28%	0.18%	0.10%
Cyprus			0.06%	0.08%	
Czech Republic				0.35%	0.48%
Denmark	1.30%	1.38%	1.13%	1.05%	0.82%
Estonia					0.06%
Finland	0.70%	0.77%	0.80%	0.80%	0.52%
France	4.77%	6.00%	7.30%	6.70%	4.67%
Germany			10.48%	10.10%	7.97%
Greece	0.37%	0.50%	0.63%	0.57%	0.52%
Hungary		0.47%	0.42%	0.22%	0.46%
Ireland	0.41%	0.48%	0.58%	0.59%	1.04%
Italy	3.13%	4.44%	5.01%	5.12%	3.65%
Latvia				0.09%	0.05%
Lithuania				0.15%	0.07%
Luxembourg	0.29%	0.27%	0.23%	0.27%	0.33%
Malta	0.06%	0.05%	0.05%	0.05%	0.05%
Netherlands	3.74%	4.57%	4.61%	3.81%	3.14%
Poland				0.30%	0.73%
Portugal	0.37%	0.52%	0.50%	0.68%	0.58%
Romania				0.24%	0.18%
Slovak Republic				0.13%	0.19%
Slovenia				0.33%	0.14%
Spain	0.50%	1.39%	1.74%	2.40%	2.37%
Sweden	2.06%	2.24%	1.88%	1.71%	1.23%
United Kingdom	9.42%	6.96%	6.12%	6.27%	5.50%
EU-27	30.78%	34.51%	46.59%	46.90%	38.35%
Eurozone (EU-13)	17.94%	23.40%	36.65%	36.06%	28.43%
United States	13.78%	14.68%	13.48%	15.01%	18.73%

Source: Based on data from World Development Indicators, 2007

Note: Data for Europe is not adjusted for intra-regional trade.

Figure 3.9: EU-27: Shares of World GDP, 2000



Source: Based on Table 3.15 and Table 3.17

Table 3.18: AE-22: Exports of Goods and Services (current US\$, in millions)

	1960	1970	1980	1990	2000	2005
Bangladesh		747.3	994.5	1,842.7	6,584.6	9,948.8
Bhutan			18.5	80.3	131.4	229.9
Brunei			4,602.7			
Cambodia	88.6	41.4		68.2	1,828.5	4,030.1
China*		5,940.3	45,743.8	168,489.2	522,556.3	1,189,158.5
India	1,672.0	2,180.7	11,430.6	22,651.4	60,854.0	163,841.0
Indonesia		1,299.4	26,659.6	28,874.5	67,612.6	94,356.8
Japan	4,750.5	21,975.0	145,391.0	316,948.7	512,784.3	
Korea, Rep.	122.8	1,212.6	20,457.2	73,798.2	208,997.5	334,338.9
Lao PDR				102.5	521.2	781.7
Malaysia		1,772.3	14,114.9	32,798.3	112,344.9	161,642.6
Maldives					558.3	475.4
Mongolia					613.7	1,485.8
Myanmar						
Nepal		42.5	225.1	382.1	1,278.3	1,190.6
Pakistan		776.9	2,959.5	6,215.3	9,937.4	17,199.9
Philippines	736.6	1,443.5	7,661.1	12,189.7	42,049.9	46,565.7
Singapore						285,826.9
Sri Lanka	653.3	585.4	1,295.2	2,345.3	6,359.6	7,968.8
Chinese Taipei						
Thailand	432.7	1,063.0	7,812.1	29,114.5	82,136.5	129,885.8
Vietnam				2,331.7	17,170.2	37,025.2
AE-22 Total	8,456.5	39,080.2	289,365.8	698,232.8	1,654,319.1	2,485,952.7
World	164,004.1	387,761.7	2,064,630.7	4,143,305.8	7,830,651.4	

Based on data from World Development Indicators, 2007

* China includes Hong Kong

Note: Except for the United States, data for other regions are not adjusted for intra-regional trade.

Table 3.19: AE-22: World Share of Exports of Goods and Services

	1960	1970	1980	1990	2000
Bangladesh		0.19%	0.05%	0.04%	0.08%
Bhutan			0.00%	0.00%	0.00%
Brunei			0.22%		
Cambodia	0.05%	0.01%		0.00%	0.02%
China*		1.53%	2.22%	4.07%	6.67%
India	1.02%	0.56%	0.55%	0.55%	0.78%
Indonesia		0.34%	1.29%	0.70%	0.86%
Japan	2.90%	5.67%	7.04%	7.65%	6.55%
Korea, Rep.	0.07%	0.31%	0.99%	1.78%	2.67%
Lao PDR				0.00%	0.01%
Malaysia		0.46%	0.68%	0.79%	1.43%
Maldives					0.01%
Mongolia					0.01%
Myanmar					
Nepal		0.01%	0.01%	0.01%	0.02%
Pakistan		0.20%	0.14%	0.15%	0.13%
Philippines	0.45%	0.37%	0.37%	0.29%	0.54%
Singapore					
Sri Lanka	0.40%	0.15%	0.06%	0.06%	0.08%
Chinese Taipei					
Thailand	0.26%	0.27%	0.38%	0.70%	1.05%
Vietnam				0.06%	0.22%
AE-22 Total	5.16%	10.08%	14.02%	16.85%	21.13%

Based on data from World Development Indicators, 2007

* China includes Hong Kong

Note: Except for the United States, data for other regions are not adjusted for intra-regional trade.

Table 3.20: AE-22: Imports of Goods and Services (current US\$, in millions)

	1960	1970	1980	1990	2000	2005
Bangladesh		1,124.4	3,236.8	4,072.7	9,056.1	13,827.5
Bhutan			51.1	91.8	209.5	462.0
Brunei			575.0			
Cambodia	140.0	55.8		141.9	2,265.6	4,574.8
China*		5,735.5	46,572.7	149,398.5	486,118.7	1,042,404.9
India	2,634.4	2,714.4	17,212.3	27,146.1	65,098.1	187,690.9
Indonesia		1,446.1	15,764.1	27,056.1	50,258.3	82,162.1
Japan	4,557.8	19,407.6	155,222.4	288,108.7	444,895.3	
Korea, Rep.	490.1	2,119.6	25,497.8	76,637.0	192,867.4	315,678.1
Lao PDR				213.9	595.9	889.6
Malaysia		1,596.9	13,513.2	31,865.7	94,329.4	130,812.2
Maldives					446.9	842.5
Mongolia					771.6	1,576.3
Myanmar						
Nepal		71.9	365.3	765.9	1,780.2	2,406.6
Pakistan		1,467.0	5,711.7	9,348.5	10,859.2	21,446.8
Philippines	722.2	1,407.9	9,253.1	14,744.8	40,605.1	51,136.8
Singapore						251,341.6
Sri Lanka	717.4	657.8	2,202.9	3,053.0	8,088.2	10,688.9
Chinese Taipei						
Thailand	469.4	1,375.7	9,839.1	35,527.8	71,517.9	132,619.2
Vietnam				2,929.4	17,938.6	39,794.4
AE-22 Total	9,731.3	39,180.6	305,017.5	671,101.8	1,497,702.1	2,290,355.1
World	165,798.4	381,971.0	2,179,772.1	4,200,297.6	7,875,505.3	

Based on data from World Development Indicators, 2007

* China includes Hong Kong

Note: Except for the United States, data for other regions are not adjusted for intra-regional trade.

Table 3.21: AE-22: World Share of Imports of Goods and Services

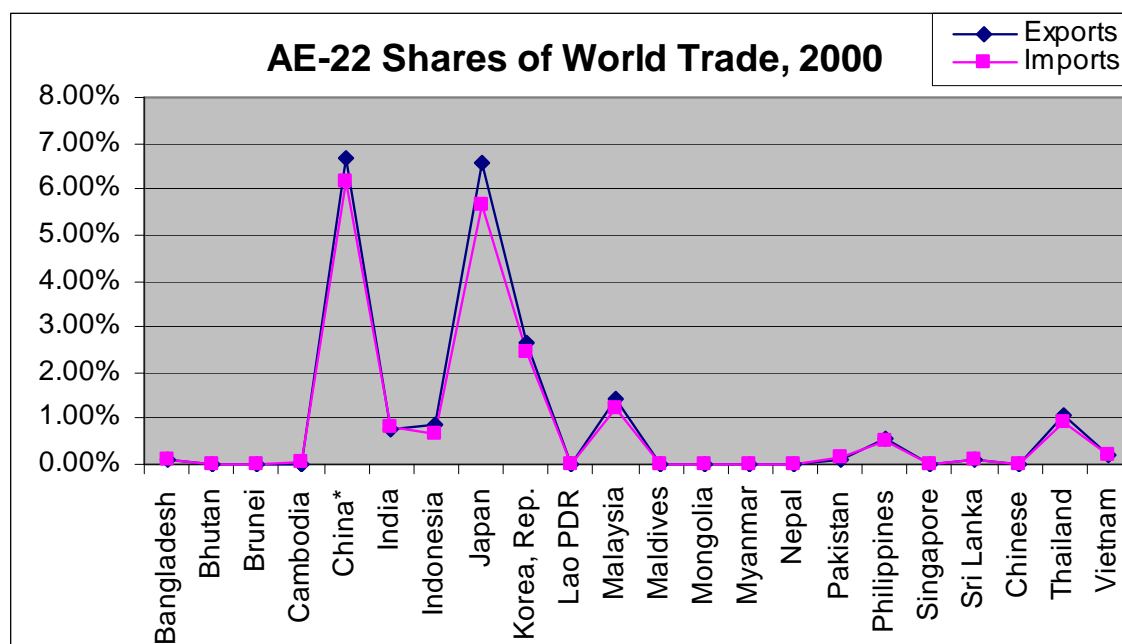
	1960	1970	1980	1990	2000
Bangladesh		0.29%	0.15%	0.10%	0.11%
Bhutan			0.00%	0.00%	0.00%
Brunei			0.03%		
Cambodia	0.08%	0.01%		0.00%	0.03%
China*		1.50%	2.14%	3.56%	6.17%
India	1.59%	0.71%	0.79%	0.65%	0.83%
Indonesia		0.38%	0.72%	0.64%	0.64%
Japan	2.75%	5.08%	7.12%	6.86%	5.65%
Korea, Rep.	0.30%	0.55%	1.17%	1.82%	2.45%
Lao PDR				0.01%	0.01%
Malaysia		0.42%	0.62%	0.76%	1.20%
Maldives					0.01%
Mongolia					0.01%
Myanmar					
Nepal		0.02%	0.02%	0.02%	0.02%
Pakistan		0.38%	0.26%	0.22%	0.14%
Philippines	0.44%	0.37%	0.42%	0.35%	0.52%
Singapore					
Sri Lanka	0.43%	0.17%	0.10%	0.07%	0.10%
Chinese Taipei					
Thailand	0.28%	0.36%	0.45%	0.85%	0.91%
Vietnam				0.07%	0.23%
AE-22 Total	5.87%	10.26%	13.99%	15.98%	19.02%

Based on data from World Development Indicators, 2007

* China includes Hong Kong

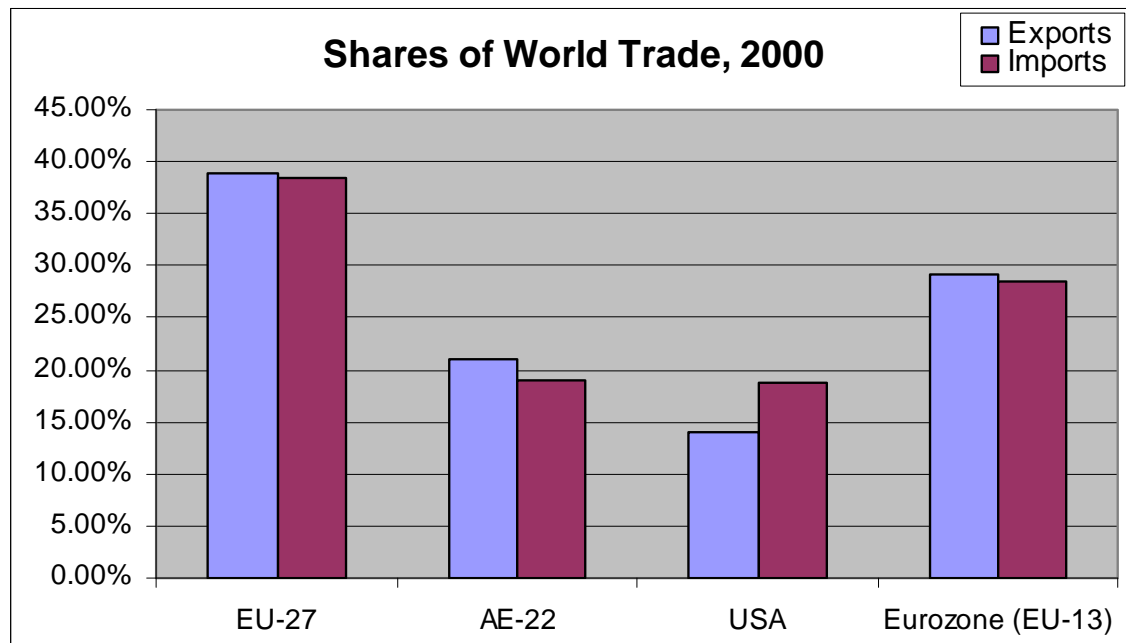
Note: Except for the United States, data for other regions are not adjusted for intra-regional trade.

Figure 3.10: AE-22: Shares of World Trade, 2000



Source: Based on Table 3.19 and Table 3.21.

Figure 3.11: EU, AE-22, USA, Eurozone: Shares of World Trade, 2000



Source: Based on Table 3.15, Table 3.17, Table 3.19 and Table 3.21.

Note: Except for the United States, data for other regions are not adjusted for intra-regional trade.

8. Industrialization of Asian Economies Beyond Japan

Much has been discussed about the potential of industrialization of Asian economies beyond Japan. Japan has of course been recognized as a mature industrialized economy. The fact that Asia's pre-industrialized agriculture-dependant traditional economies have made relatively rapid progress to industrialization and internationalization merits mention. Table 3.22 and Table 3.23 below make a brief presentation for the AE-22.

Table 3.22: Gross Capital Formation of AE-22 (current US\$, in millions)

	1960	1970	1980	1990	2000	2005
Bangladesh		1,019.9	2,613.5	5,133.3	10,844.3	14,716.3
Bhutan			40.6	97.2	211.7	506.5
Brunei						
Cambodia	128.5	90.0		91.2	619.1	1,218.2
China*	22,186.6	27,335.7	76,604.5	149,919.8	467,923.3	1,005,870.1
India	5,527.1	9,556.5	34,014.5	76,287.4	113,974.1	268,814.0
Indonesia		1,529.3	18,773.3	34,961.8	36,705.4	62,550.1
Japan	14,848.0	80,789.3	347,968.1	1,001,026.1	1,171,999.0	
Korea, Rep.	444.4	2,256.4	20,294.8	99,036.1	158,744.2	237,792.6
Lao PDR					361.2	919.6
Malaysia		864.1	6,821.8	14,238.5	24,655.4	26,115.9
Maldives					164.3	264.6
Mongolia					414.6	871.5
Myanmar						
Nepal		51.7	356.6	669.6	1,334.9	2,134.9
Pakistan	428.7	1,579.3	4,380.2	7,574.1	12,735.9	20,104.5
Philippines	1,111.6	1,427.9	9,453.1	10,699.0	16,065.3	14,899.6
Singapore	63.3	734.6	5,430.1	13,651.9	30,865.2	22,269.8
Sri Lanka		435.8	1,354.8	1,812.7	4,570.4	6,145.4
Chinese Taipei						
Thailand	425.2	1,813.4	9,442.0	35,274.8	28,088.5	55,809.6
Vietnam				813.0	9,238.3	18,721.5
AE-22 Total	45,163.4	129,483.9	537,547.7	1,451,286.5	2,089,515.0	1,759,724.7
World	306,577.7	714,932.5	2,741,939.2	5,110,327.7	7,078,107.6	

Based on data from World Development Indicators, 2007

* China includes Hong Kong

Table 3.23: Gross Capital Formation of AE-22 (% of GDP)

	1960	1970	1980	1990	2000	2005
Bangladesh	6.89%	11.34%	14.44%	17.05%	23.02%	24.53%
Bhutan			30.97%	32.49%	47.48%	61.18%
Brunei						
Cambodia	20.18%	12.53%		8.22%	16.87%	19.68%
China*	35.37%	28.68%	35.33%	34.71%	34.18%	41.60%
India	15.31%	15.82%	18.69%	24.07%	24.78%	33.35%
Indonesia	9.22%	15.83%	24.07%	30.67%	22.25%	21.79%
Japan	33.52%	39.80%	32.83%	33.15%	25.20%	
Korea, Rep.	11.42%	25.35%	31.81%	37.51%	31.00%	30.06%
Lao PDR					20.88%	31.93%
Malaysia	13.77%	20.19%	27.40%	32.36%	27.30%	19.94%
Maldives					26.32%	35.00%
Mongolia					44.06%	41.50%
Myanmar	11.99%	14.17%	21.48%	13.38%	12.44%	
Nepal		5.96%	18.29%	18.45%	24.31%	28.89%
Pakistan	11.56%	15.79%	18.48%	18.94%	17.38%	18.11%
Philippines	16.02%	21.34%	29.09%	24.15%	21.17%	15.14%
Singapore	9.74%	38.67%	46.41%	37.10%	33.30%	19.03%
Sri Lanka		18.95%	33.70%	22.57%	28.04%	26.15%
Chinese Taipei						
Thailand	15.41%	25.58%	29.14%	41.35%	22.84%	31.71%
Vietnam				12.57%	29.61%	35.39%

Based on data from World Development Indicators, 2007

* China includes Hong Kong

9. A Dialogue

Floyd Norris (The New York Times, January 03, 2005) wrote of “a dollar with no muscle”. Indeed the dollar has muscle. Its share of world GDP in 2006 is only 2.4% less than that of the EU-27. There are two critical issues of challenge, the first being that the dollar economy continues to be engaged in a war for which it cannot pay for. Consequently, the people of America are suffering a heavy social cost and are likely to suffer for the foreseeable future. The US national debt to GDP ratio is notably above the 60% of the Maastricht Treaty, adopted by the EU-27.

Secondly, in the absence of well-specified macroeconomic policy, the supply-side oriented fiscal policy-makers have failed to induce domestic production. Let us add that

the option to face the paradigm of Europeanization of Europe by instituting the American Hemispheric Economic Union is real. Viable economic solutions are persistently challenged by political realities.

After prolonged debates and dialogues, the Asia-Pacific Economic Cooperation became institutionalized in 1989, with its secretariat in Singapore. Just as the Atlantic is a natural divide between Europe and the Americas, so must the Pacific be a natural divide between Asia and the Americas. APEC is no longer a viable option. We have already presented the case for Asianization of Asia (see Chapter 1).

The paradigm of continental economic integration has earned its appeal. The historic progression of industrial revolution led to the internationalization of sovereign nation state economies. Labor and raw materials available in a given sovereign nation economy came to be used up and the exploration of overseas markets for the supply of low-wage labor and low-cost raw materials became a need. Industrialization also led to mass production leading to lower unit cost of goods and services manufactured. The consequent need for larger markets followed. The result was the imperial model which failed to survive the test of time. The colonial economies in remote continents became imperial entities under foreign macroeconomic policies, monetary as well as fiscal, remaining in the supreme control of the respective imperial powers. The stories of the revolt by the “cotton-growers” of America and of the salt tax revolt of India are on record. The imperial model collapsed on its own burden. The new continental economic regionalization offers an economy, the EU, the AE-22, and the AU, each with large resource bases, large population bases and generous endowments of physical resources. The continental economy will have its continental monetary and fiscal structures. Each continental economy will have its competitively large shares of world GDP to become

competitive actors in the world markets. The principle of competition will lead to the maximization of economic gains for all the peoples in all continents of the world. Restructuring of the post-WWII international financial institutions will follow (Dutta 2002.b).

On the roster of the United Nations, there are some 192 sovereign nation states. In the absence of the paradigm of continental economic integration, the overwhelming majority of them will individually have marginal shares of the world output and trade. They will be price-takers (Linnemann 1966, Dutta 1962, 1965, 1976). The economic distress of the price-takers, be they cotton-growers in India, coffee-growers in Africa, labor in tea-plantations in Sri Lanka, fruit-plantations in Latin America, jute fields in Bangladesh or workers in the precious mines in Africa, has been on record.