

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

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NOT TO BE QUOTED. CRITIQUES AND COMMENTS WILL BE MOST WELCOME.

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I. The Optimum Currency Area

Robert Mundell is the father of the concept of optimum currency area (Mundell 1961) and he has taught us so much more 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. 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).

In the 1960s, the US share of world GDP was as high as 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 1970s and 1980s (Table 1 and Graph 1). Though the rest of the non-communist world had substantive economic interaction amongst themselves, trade as well as investment with the US, producing the largest basket of world's goods and services, was vital and the US dollar became the optimum currency, recognized and accepted around the world. They depended on the imports from the USA and paid for them by exporting to the USA whatever they produced. If

not, they engaged in financial accommodation with the USA. The US dollar became core currency of international transactions.

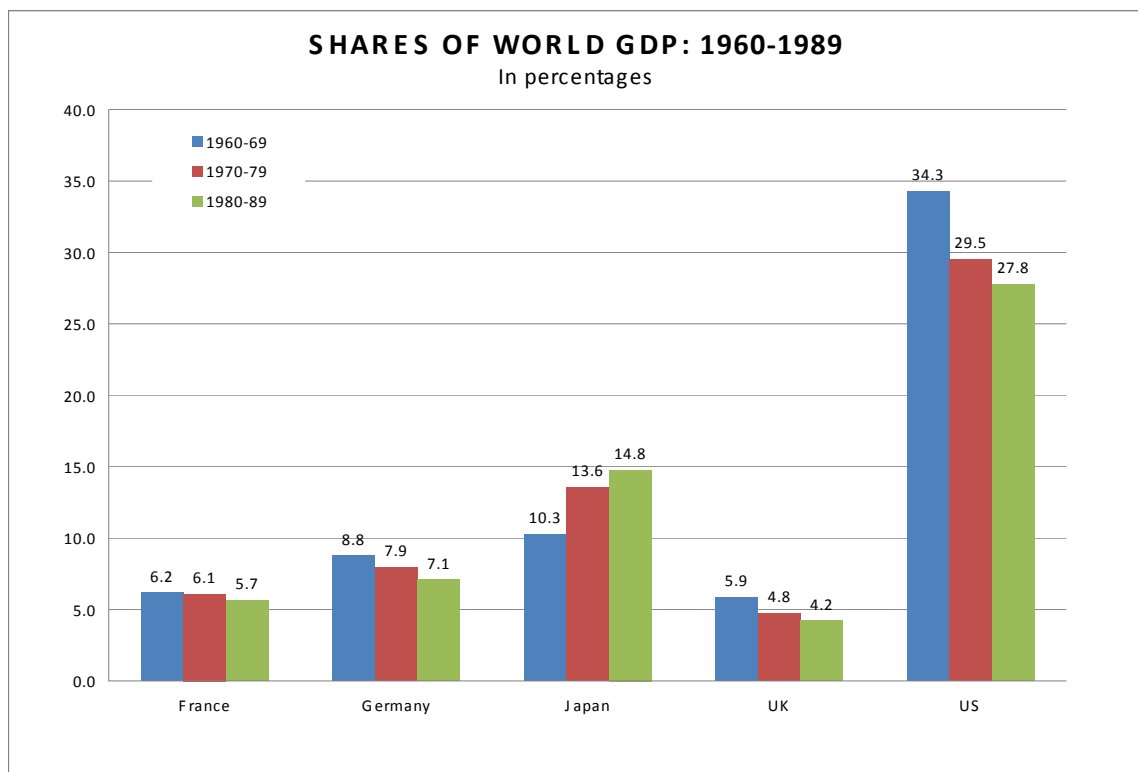
Table 1: Shares of World GDP: 1960-69, 1970-79, 1980-89, Selected Countries

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

The graphical presentation below brings the historical pattern to much focus.

Graph 1: Shares of World GDP: 1960-1989



On August 15, 1971, under historical circumstances, the US dollar's fixed gold value of one ounce of pure gold traded for US\$ 35 came to be discontinued and the linkage ceased to be legal. Kindleberger (1985) forcefully argued that the US dollar could not continue to support the global military and economic stability of the post-WWII free world for an indefinite period.

In the 1980s, the selected group of industrialized countries constituted a global forum, the group of five (G-5) which progressed to be the group of eight (G-8). Their annual summits addressed issues of mutual concern inclusive of exchange rate fluctuations. Today, the euro-dollar competitive currency regimes, 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) 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 the world output:

$$\text{Currency } i = f(\text{GDP } i / \text{GDP } w) \quad \text{where } i = 1, 2, 3.$$

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 produce some 60 % of the world GDP, their share of world trade will correspondingly be very 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.

II. The Paradigm of Geo-Economics

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

The process of the Europeanization of Europe and the competitive status of the euro cannot be reversed. One rational option under consideration for the US dollar is to sponsor the 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 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.

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 progressive industrialization of this group of Asian economies, inclusive of

India, has contributed to substantive intra-Asian economic cooperation, and calls for intra-regional micro and macroeconomic guidelines have become 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 their shares of economic interaction in terms of trade and investment;
- (b) their disappointment with the poor results of the Asia-Pacific Economic Cooperation (“APEC”); and
- (c) their learning from the success of the European Union (EU), now the EU-27.

Will the 4+10 follow “the principle of inclusion” as the EU did, and include Mongolia, Chinese Taiwan, Pakistan, Maldives, Sri Lanka, Nepal, Bangladesh and Bhutan, the eight other economies belonging to the map of Asia? 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).

In 2002, at a continental conference in Durban, South Africa, the African Union (AU) came to be instituted, which replaced the Organization of African Unity (OAU), established earlier in 2002. 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 recent EU-AU summit in 2007 has certainly been a positive step.

III. The Euro : the New Currency Regime

Today, the euro and dollar are competitive global currencies. On January 1, 1999 euro was launched at 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 per the Maastricht Treaty of 1992 and recommended their membership to the European Monetary Union. Greece became a full member of the euro-regime as of January 1, 2001. The most recent addition to the euro-regime is Slovenia on January 1, 2007.

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 rate of the three lowest rate 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 rate of the three lowest performing Member States; and

(e) exchange rate stability.

All Member States that have joined the EU since the signing of the Maastricht Treaty in 1992 are obligated to adopt the euro in due course, as and when each will have satisfied 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 .

Sweden has avoided joining the euro-regime 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 euro-regime (<http://euobserver.com/9/25202>). The Pound Sterling is not part of the ERM II and the government has continued to stress that the UK is open to joining the euro regime dependent upon the results of the 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–Free Trade Area (FTA), which is one

member of the WTO with one vote, we have argued that the UK's Pound-Sterling is a sheltered currency.

The European Central Bank (ECB) became the one common central bank to oversee and manage the monetary policy of the euro-regime. On January 1, 1999, the euro was introduced only as an accounting unit, and became 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 euro-regime. 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, perform some related functions, inclusive of 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 national currencies and their joint circulation with euro had become a critical factor during this transitory period. However, as the euro became the exclusive medium of exchange of the euro regime, it climbed back up over the dollar. Of course, international uncertainty due to the wars and related terrorism in Iraq and Afghanistan and mounting budget and trade deficits plus national debt in the USA have compromised the competitive value of dollar to the benefit of the euro. Fluctuations of prices of petroleum and gold in the world market, long quoted in dollars, continue to impact the relative strength of the dollar. The management of interest rate policy by the Federal Reserve Bank also plays its role and force the ECB and other central banks to managing their core interest rates to offset the economic impact emanating from the US.

In October-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 approximated to US\$ 1.49, settling at \$1.47 on December 28, 2007. The appreciation of the euro warrants a comprehensive understanding of the core of the economic union in Europe. Irrespective of linguistic, religious, and lifestyle diversities, the people belonging to one common European geography will be citizens of the European family (Monnett 1978). One integrated economy in a continental geographic unit with well-specified intra-regional micro and macroeconomic parameters, transparent and judicially enforceable, is in place. The EU is 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, with no trade barriers whatsoever, no duties, customs, quotas. They have one common membership to the World Trade Organization (WTO) with one vote. They have a common set of trade policy 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 Euro-regime are immune from the risk of exchange rate fluctuations and risks will decline as the euro-regime membership grows to include all EU Member 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,

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 updates this idea with 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.

As noted above, on January 1, 1999, 11 of the original 15 EU members, Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain, elected to voluntarily surrender their monetary sovereignty and adopt the euro as one common currency, managed by one common central bank, the European Central Bank (ECB). Greece joined the euro regime two years later. Denmark, Sweden and the United Kingdom continue to be the 3 “out” members. The twelve new members admitted to the EU membership since 2004 have pledged to join the euro-regime, as and when they can meet the convergence criteria of the Maastricht Treaty, as adopted by the ECB. May one money lead to one Europe (Issing 1996, Vanthoor 2002).

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%. For industrial 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%. During 2006, over one-quarter of the global allocated foreign exchange holdings were in euros, compared to 18% in 1999. Industrialized and developing countries have both

increased their euro holdings from 16% in 1999 to 20% in 2006 and some 20% to 30%, respectively. With its share of about 40%, the euro is the second most actively traded currency in foreign exchange markets. 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 place as a world currency, enabling the euro-area economy to take its place as one integrated continental economy with its largest share of world's GDP, 30.43 % in 2005 vis-à-vis 27.81% for the USA (see **Table 2 to be inserted**). Be it noted that the IMF has given the ECB an observer status.

It is instructive to note that Germany, France, UK, Italy, Spain and the Netherlands apart, as many as twenty-one others of the EU-27 economies have less than one percent of world GDP. Germany, the largest economy of the EU-27, has its share at 6.26%, a very remote to second to USA with its share of 27.81 % of the world GDP. One must recall that John Monnett forcefully argued that individually no European country could deliver economic prosperity to its people which was due to them. Together the EU with its competitive share of the world output could be a competitive actor in the world market and thus help optimize economic gains to the people of the European people. Or, the USA with its overwhelmingly large share of world GDP would retain its super-power in the global economy.

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Table 2: GDP of the EU and USA, 2005

	GDP, millions of US\$	(%) of World
Austria	306,073	0.69
Belgium	370,824	0.83
Bulgaria	26,648	0.06
Cyprus*	16,695	0.04
Czech Republic	124,365	0.28
Denmark	258,714	0.58
Estonia	13,101	0.03
Finland	193,160	0.43
France	2,126,630	4.76
Germany	2,794,926	6.26
Greece	225,206	0.50
Hungary	109,239	0.24
Ireland	201,817	0.45
Italy	1,762,519	3.95
Latvia	15,826	0.04
Lithuania	25,625	0.06
Luxembourg	36,469	0.08
Malta	5,570	0.01
Netherlands	624,202	1.40
Poland	303,229	0.68
Portugal	183,305	0.41
Romania	98,565	0.22
Slovakia	46,412	0.10
Slovenia	34,354	0.08
Spain	1,124,640	2.52
Sweden	357,683	0.80
United Kingdom	2,198,789	4.93
EU-27	13,584,586	30.43
US	12,416,505	27.81
World	44,645,437	

Source: World Development Indicators, 2006

Note: Data for Cyprus from the IMF-IFS.

IV. The Euro-Dollar Currency Regimes

The euro has progressively become a global currency as its shares of world output and trade have become competitively large. In 2006, the GDP of the 13-member Eurozone at US\$ 10.5 trillion stands up against 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).

Table 3.A : 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

Table 3.B: 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

Table 3.C: 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	Jul-2003	0.8787	1.1387
Feb-1999	0.8935	1.1198	Aug-2003	0.8968	1.1159
Mar-1999	0.9197	1.0879	Sep-2003	0.8893	1.1253
Apr-1999	0.9334	1.0719	Oct-2003	0.8546	1.1706
May-1999	0.9417	1.0625	Nov-2003	0.8541	1.1716
Jun-1999	0.9625	1.0395	Dec-2003	0.8137	1.2296
Jul-1999	0.9666	1.0354	Jan-2004	0.7940	1.2601
Aug-1999	0.9425	1.0615	Feb-2004	0.7927	1.2621
Sep-1999	0.9535	1.0494	Mar-2004	0.8154	1.2269
Oct-1999	0.9340	1.0713	Apr-2004	0.8327	1.2015
Nov-1999	0.9681	1.0336	May-2004	0.8335	1.2003
Dec-1999	0.9894	1.0113	Jun-2004	0.8233	1.2151
Jan-2000	0.9879	1.0131	Jul-2004	0.8149	1.2278
Feb-2000	1.0164	0.9844	Aug-2004	0.8199	1.2201
Mar-2000	1.0355	0.9663	Sep-2004	0.8194	1.2208
Apr-2000	1.0568	0.9470	Oct-2004	0.7997	1.2511
May-2000	1.1011	0.9089	Nov-2004	0.7692	1.3006
Jun-2000	1.0534	0.9499	Dec-2004	0.7466	1.3399
Jul-2000	1.0636	0.9408	Jan-2005	0.7611	1.3145
Aug-2000	1.1044	0.9060	Feb-2005	0.7690	1.3009
Sep-2000	1.1469	0.8727	Mar-2005	0.7575	1.3207
Oct-2000	1.1699	0.8561	Apr-2005	0.7727	1.2945
Nov-2000	1.1712	0.8546	May-2005	0.7878	1.2699
Dec-2000	1.1115	0.9007	Jun-2005	0.8219	1.2171
Jan-2001	1.0647	0.9400	Jul-2005	0.8306	1.2044
Feb-2001	1.0843	0.9229	Aug-2005	0.8135	1.2297
Mar-2001	1.0990	0.9109	Sep-2005	0.8150	1.2276
Apr-2001	1.1207	0.8929	Oct-2005	0.8310	1.2037
May-2001	1.1411	0.8771	Nov-2005	0.8483	1.1793
Jun-2001	1.1716	0.8540	Dec-2005	0.8438	1.1856
Jul-2001	1.1623	0.8610	Jan-2006	0.8273	1.2093
Aug-2001	1.1103	0.9013	Feb-2006	0.8368	1.1955
Sep-2001	1.0964	0.9126	Mar-2006	0.8320	1.2023
Oct-2001	1.1041	0.9062	Apr-2006	0.8169	1.2247
Nov-2001	1.1255	0.8891	May-2006	0.7836	1.2766
Dec-2001	1.1213	0.8922	Jun-2006	0.7893	1.2674
Jan-2002	1.1310	0.8847	Jul-2006	0.7872	1.2707
Feb-2002	1.1493	0.8705	Aug-2006	0.7812	1.2805
Mar-2002	1.1421	0.8759	Sep-2006	0.7851	1.2741
Apr-2002	1.1290	0.8862	Oct-2006	0.7927	1.2620
May-2002	1.0910	0.9171	Nov-2006	0.7777	1.2864
Jun-2002	1.0478	0.9552	Dec-2006	0.7577	1.3202
Jul-2002	1.0075	0.9931	Jan-2007	0.7694	1.3002
Aug-2002	1.0226	0.9784	Feb-2007	0.7655	1.3068
Sep-2002	1.0207	0.9801	Mar-2007	0.7555	1.3240
Oct-2002	1.0197	0.9812	Apr-2007	0.7409	1.3502
Nov-2002	0.9981	1.0023	May-2007	0.7396	1.3525
Dec-2002	0.9808	1.0202	Jun-2007	0.7453	1.3421
Jan-2003	0.9420	1.0621	Jul-2007	0.7297	1.3708

Feb-2003	0.9279	1.0780	Aug-2007	0.7337	1.3634
Mar-2003	0.9274	1.0788	Sep-2007	0.7204	1.3888
Apr-2003	0.9212	1.0862	Oct-2007	0.7030	1.4229
May-2003	0.8658	1.1559	Nov-2007	0.6819	1.4669
Jun-2003	0.8569	1.1677	Dec-2007	0.6860	1.4581

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

Graph : 2

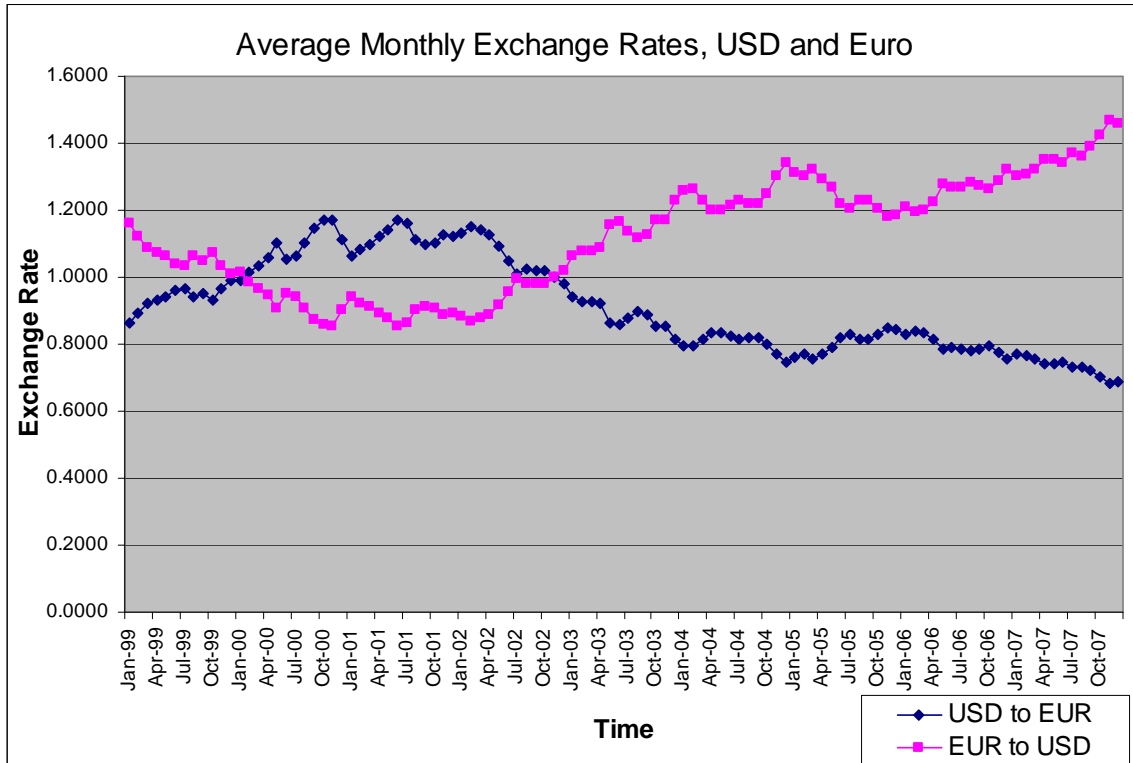


Table 3.D Average Quarterly Exchange Rates: Euro and USD

DATE	USD to EUR	EUR to USD
1999 Q1	0.8919	1.1226
1999 Q2	0.9458	1.0395
1999 Q3	0.9542	1.0494
1999 Q4	0.9638	1.0113
2000 Q1	1.0132	0.9663
2000 Q2	1.0707	0.9499
2000 Q3	1.1045	0.8727
2000 Q4	1.1506	0.9007
2001 Q1	1.0826	0.9109
2001 Q2	1.1444	0.8540
2001 Q3	1.1233	0.9126
2001 Q4	1.1168	0.8922
2002 Q1	1.1405	0.8759
2002 Q2	1.0893	0.9552
2002 Q3	1.0169	0.9801
2002 Q4	0.9996	1.0202
2003 Q1	0.9326	1.0788
2003 Q2	0.8811	1.1677
2003 Q3	0.8882	1.1253
2003 Q4	0.8407	1.2296
2004 Q1	0.8009	1.2269
2004 Q2	0.8298	1.2151
2004 Q3	0.8180	1.2208
2004 Q4	0.7719	1.2972
2005 Q1	0.7623	1.3124
2005 Q2	0.7941	1.2606
2005 Q3	0.8197	1.2205
2005 Q4	0.8410	1.1897
2006 Q1	0.8319	1.2026
2006 Q2	0.7965	1.2565
2006 Q3	0.7845	1.2751
2006 Q4	0.7760	1.2896
2007 Q1	0.7634	1.3104
2007 Q2	0.7419	1.3483
2007 Q3	0.7280	1.3742
2007 Q4	0.6909	1.4482

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

V. The Competitive Shares of World GDP: EU-27, USA, AE-22 and Euro-Regime

Table 4.A presents 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, Korea, four of the twenty-two member economies record individual shares of world-GDP above one percent. As many as eighteen other member economies of the AE-22 has individual shares of less than one percent of the world GDP. Table 4..B summarizes the regional shares of the EU-27, the AE-22, the USA and the Euro-regime , each region with a competitively large. No wonder the EU has become a learning model for other continents.

Table :4.A : 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%			
Spain	1,223.99	2.54%	Euro-regime	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

Table 4..B : Shares of World GDP: the EU-27, the AE-22, USA, The Euro-regime: 2006

The EU-27	29.85
The AE-22	22.06
USA	27.36
The Euro-Regime	21.82

Source: Table 3.A.

VI. The Regional Population Bases:

A comparative review of the population base of each regional; economy warrants an analysis. For each regional economy, population as the base for supply of labor impacts on aggregate supply function, and then consumption by the people defines the aggregate demand function. Tables 5.A, 5.B and 5.C 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.

Table 5.A: 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	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 5.B 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 Taiwan	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%
Eurozone	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

[^] China data includes Hong Kong

Note: World total calculated

Table 5.C: 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		
Cyprus	0.77	0.01%	Darussalam	0.38	0.01%
Czech Republic	10.27	0.16%	Cambodia	14.16	0.22%
Denmark	5.43	0.08%	China [^]	1,321.00	20.49%
Estonia	1.35	0.02%	India	1,113.00	17.27%
Finland	5.25	0.08%	Indonesia	222.05	3.44%
France	61.35	0.95%	Japan	127.75	1.98%
Germany	82.29	1.28%	Korea	48.30	0.75%
Greece	11.12	0.17%	Lao PDR	6.03	0.09%
Hungary	10.08	0.16%	Malaysia	26.39	0.41%
Ireland	4.24	0.07%	Maldives	0.35	0.01%
Italy	58.28	0.90%	Mongolia	2.59	0.04%
Latvia	2.30	0.04%	Myanmar	56.51	0.88%
Lithuania	3.39	0.05%	Nepal	23.59	0.37%
Luxembourg	0.46	0.01%	Pakistan	155.40	2.41%
Malta	0.40	0.01%	Philippines	86.97	1.35%
Netherlands	16.35	0.25%	Singapore	4.42	0.07%
Poland	38.14	0.59%	Sri Lanka	19.77	0.31%
Portugal	10.59	0.16%	Chinese Taipei	22.88	0.35%
Romania	21.64	0.34%	Thailand	65.76	1.02%
Slovak Republic	5.41	0.08%	Vietnam	84.40	1.31%
Slovenia	2.01	0.03%	Total AE-22	3,558.59	55.21%
Spain	44.14	0.68%	Eurozone	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

VII.. Historical GDP Profile: EU-27, AE-22, uSA and the Euro-Regime

Table 6.A: 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	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 6..B : 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	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

VIII. Shares of World Trade:

For shares of world trade, exports and imports, the euro-regime leads USA by substantive margins. The comparative strength of the two currencies, euro and dollar, must relate to the shares of world output and trade of the euro regime and USA. Once the remaining fourteen non-euro members belonging to the EU-FTA join the euro regime, the EU-27 will have far larger competitive share of world output and trade with its accompanying impact on the euro-dollar exchange rate.

Table 7.A: US, EXPORTS OF GOODS: 1999-2007 (USD, in millions)

	EXPORTS	EU	% Share	Eurozone	% Share	Japan	% Share	Canada	% Share
1999	683,965	154,825	22.6%	106,436	15.6%	57,466	8.4%	166,600	24.4%
2000	771,994	168,181	21.8%	116,212	15.1%	64,924	8.4%	178,941	23.2%
2001	718,712	161,931	22.5%	112,904	15.7%	57,452	8.0%	163,424	22.7%
2002	682,422	146,621	21.5%	105,837	15.5%	51,449	7.5%	160,923	23.6%
2003	713,415	155,170	21.8%	113,132	15.9%	52,004	7.3%	169,924	23.8%
2004	807,516	172,622	21.4%	127,158	15.7%	54,243	6.7%	189,880	23.5%
2005	894,631	186,437	20.8%	137,497	15.4%	55,485	6.2%	211,899	23.7%
2006	1,023,109	213,996	20.9%	155,735	15.2%	59,613	5.8%	230,656	22.5%
2007*	958,322	205,539	21.4%	149,816	15.6%	52,209	5.4%	206,630	21.6%

	EXPORTS	Brazil	% Share	Russia	% Share	India	% Share	China	% Share
1999	683,965	13,203	1.9%	2,060	0.3%	3,688	0.5%	13,111	1.9%
2000	771,994	15,321	2.0%	2,093	0.3%	3,667	0.5%	16,185	2.1%
2001	718,712	15,879	2.2%	2,716	0.4%	3,757	0.5%	19,182	2.7%
2002	682,422	12,376	1.8%	2,397	0.4%	4,101	0.6%	22,128	3.2%
2003	713,415	11,211	1.6%	2,447	0.3%	4,980	0.7%	28,368	4.0%
2004	807,516	13,897	1.7%	2,961	0.4%	6,109	0.8%	34,744	4.3%
2005	894,631	15,372	1.7%	3,962	0.4%	7,989	0.9%	41,925	4.7%
2006	1,023,109	19,231	1.9%	4,701	0.5%	10,056	1.0%	55,186	5.4%
2007*	958,322	19,907	2.1%	5,873	0.6%	14,141	1.5%	52,524	5.5%

Source: <http://www.census.gov/foreign-trade/statistics/historical/gands.pdf>,
<http://www.census.gov/foreign-trade/balance/>

* 2007 data through October

Table 7.B US, IMPORTS OF GOODS: 1999-2007 (USD, in millions)

	IMPORTS	EU	% Share	Eurozone	% Share	Japan	% Share	Canada	% Share
1999	1,031,784	200,053	19.4%	144,505	14.0%	130,864	12.7%	198,711	19.3%
2000	1,226,684	226,901	18.5%	163,520	13.3%	146,479	11.9%	230,838	18.8%
2001	1,148,231	226,568	19.7%	166,373	14.5%	126,473	11.0%	216,268	18.8%
2002	1,167,377	232,313	19.9%	172,573	14.8%	121,429	10.4%	209,088	17.9%
2003	1,264,307	253,042	20.0%	187,204	14.8%	118,037	9.3%	221,595	17.5%
2004	1,477,094	281,959	19.1%	209,606	14.2%	129,805	8.8%	256,360	17.4%
2005	1,681,780	308,776	18.4%	228,881	13.6%	138,004	8.2%	290,384	17.3%
2006	1,861,380	330,419	17.8%	246,667	13.3%	148,181	8.0%	302,438	16.2%
2007*	1,616,675	294,708	18.2%	221,602	13.7%	121,287	7.5%	261,309	16.2%

	IMPORTS	Brazil	% Share	Russia	% Share	India	% Share	China	% Share
1999	1,031,784	11,314	1.1%	5,921	0.6%	9,071	0.9%	81,788	7.9%
2000	1,226,684	13,853	1.1%	7,659	0.6%	10,687	0.9%	100,018	8.2%
2001	1,148,231	14,466	1.3%	6,264	0.5%	9,737	0.8%	102,278	8.9%
2002	1,167,377	15,781	1.4%	6,870	0.6%	11,818	1.0%	125,193	10.7%
2003	1,264,307	17,910	1.4%	8,618	0.7%	13,055	1.0%	152,436	12.1%
2004	1,477,094	21,160	1.4%	11,891	0.8%	15,572	1.1%	196,682	13.3%
2005	1,681,780	24,436	1.5%	15,307	0.9%	18,804	1.1%	243,470	14.5%
2006	1,861,380	26,367	1.4%	19,828	1.1%	21,831	1.2%	287,774	15.5%
2007*	1,616,675	21,590	1.3%	15,903	1.0%	19,995	1.2%	266,049	16.5%

Source: <http://www.census.gov/foreign-trade/statistics/historical/gands.pdf>,

<http://www.census.gov/foreign-trade/balance/>

* 2007 data through October

Table 7.C 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

Table 7.D: : 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

Table 7.E: 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

Table 7.F : 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
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IX 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 of Asia's pre-industrialized agriculture-dependant traditional economies have made relatively rapid progress to industrialization and internationalization merits mention. Tables 8.A and 8.B below make a brief presentation for the AE-22.

Table 8.A 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 Taiwan						
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 8.B : 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 Taiwan						
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

X.: 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 can not pay for. 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.

After prolonged debates and dialogues, the Asia-Pacific Economic Cooperation (APEC) became a formal institution in 1989. Just as the Atlantic proved to be 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 present the case for Asianization of Asia.

The paradigm of continental economic integration has earned its appeal. The historic progression of industrial revolution led to internationalization of sovereign nations state economies. Labor and raw materials available in given sovereign nation economy came to be used up and 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 market followed. The result was the imperial model which failed to survive the test of time. The colonial economies in remote continents became imperial entity under the 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 Virginia, USA and of the salt tax revolt by a non-violent rebel leader who was called the half-naked fakir of India are on record. The imperial model collapsed on its own burden. The new continental economic regionalization offers an economy, the EU-27, the AE-22, and the AU-53 with large resource bases with large population bases and endowment 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 and trade, will be competitive actors in the

world markets. The principle of competition will lead to 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 nations states. In the absence of the paradigm of continental economic integration, 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, workers in the precious mines in Africa, has been on record..

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