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**The Euro and its Impact on
ASEAN Economies**

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The Euro and its Impact on ASEAN Economies

Statement of the Problem

Since January 1, 1999, the euro era has begun. The new currency was introduced for non-cash transaction in 11 European Union (EU) countries, and euro notes and coins will be introduced in January 2002. The eleven participating countries are Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain. The currencies of these countries will be irrevocably fused. The European Central Bank (ECB) is supposed to become lord over monetary policy in Euroland.

The launching of the euro not only affects the 11 members of the Euroland, but it also affects the potential new member countries such as Central and Eastern European countries as well as some countries in Europe, Africa and French territories such as Monaco, San Marino, Vatican, Andorra, Mayotte, Saint Pierre, Miquelon, New Caledonia, and countries in West and Central Africa's single-currency zone. These countries will adopt the euro without belonging to the Union. And if Sweden, Denmark, Greece and Britain join the single currency, then their overseas territories would automatically adopt the euro too (Table 1). The euro also influences third countries such as the United States, Japan and developing Asian countries.

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Table 1: Unofficially and Officially Euronized Countries as of January 2000

Unofficially euronized:

Some former French colonies in Africa, Balkans, Bosnia, Montenegro.

Officially euronized:

Andorra, Monaco, San Marino, Vatican City.

Source: CIA 1998; The Statesman's Year-Book, IMF 1998, World Bank 1999.

Studies on the effects of the euro on economic growth, trade, and investment have been carried out. The European Commission concludes that the benefits of lower transaction and hedging costs are approximately amounted to 0.5% of GDP. The price transparency will increase competition among the European firms. The stability of currency and expected low inflation will increase intra-trade and enhance market efficiency. Moreover, the capital and money markets will become more liquid and the cost of funding is expected to be lower with improvement of the financial resource reallocation. The IMF study also estimates the impact of the euro on economic growth based on the percentage deviations from baseline scenario. The estimated results illustrate that the participating countries are expected to grow much faster than the other parts of the world (Table 2).

Table 2: Impact of EMU on Economic Growth (% deviations from baseline scenario)

	2000	2001	2002	2003	2010	
EMU members		0.2	0.9	1.0	1.1	2.9
Non-European G7	-0.1	0.0	0.0	0.1	0.1	
Other industrialized countries		-0.1	0.1	0.1	0.0	0.2
Developing countries	0.0	0.1	0.2	0.2	0.3	

Source: IMF

Salvatore (1998) suggests that there are two main reasons supporting that the euro could be a great challenge to the US dollar as an international currency. First, it is highly expected that the invoicing currency will gradually shift toward the euro. Second, the euro will play another role as an official reserve currency (Table 3). However, McCauley (1997) argues that the appreciation of the euro vis-a-vis the US dollar may not actually happen because there might be a net portfolio shift between the international investment and borrowing in the European financial market.

The introduction of the euro will also affect both international trade and investment. The impacts on international trade could lead to two directions: trade diversion and trade creation. The trade creation is a higher amount of intra EU trade and results in the economic growth in Euroland. However, increased competitiveness of the firms in Euroland, market transparency, elimination of the systematic risk and the lower cost of financing will lead to the trade diversion effect.

Table 3: The Use of Currencies: EU, US and Japan

	EU	US	Japan
World trade (1992)	31.0	48.0	5.0
World debt securities (1992)	34.5	37.2	17.0
Developing countries debt (end of 1996)	15.8	50.2	18.1
Foreign exchange transactions (1996)	35.0	41.5	12.0

Source: Salvatore (1998)

This paper looks at the conditions that will create euro's dominance in the ASEAN economies, and to what extent they will be threatened, or enhanced.

1. European Integration and the Euro

After the collapse of the Bretton Woods System in the early 1970s, the global exchange rate system became unstable. European countries then devised "the snake" in April 1972. Participants of this system were required to fix their currencies to fluctuate within a specific band. The snake consisted of Germany, Netherlands, Belgium, Luxembourg, and Denmark. Bundesbank played an important role as a leader of the system, which was often considered as the D-mark block. In 1979, the snake was succeeded by the European Monetary System (EMS) that consists of the Exchange Rate Mechanism (ERM) and European Currency Unit (ECU). The former was established as a mechanism to control the fluctuation of the exchange rate and the latter was created to be a synthetic basket of European currencies. Although the exchange-rate mechanism of the EMS collapsed, the single market project was completed in 1992, allowing for free flows of capital, labor, goods and services among member countries (the Economist January 2, 1999).

The process of creating the euro has taken for almost 30 years. Starting with the Werner Plan in the early 1970s, has led to the success of the present European Union. In 1986, the Single European Act was signed and entered into

force in 1987. In 1989, Jacques Delors, President of the EC Commission, reported on the creation of economic and monetary union (EMU) in three stages.

The first stage of the EMU started in July 1990, was the abolition of capital control. During this stage, Maastricht treaty on European Union was negotiated and signed in 1992 in order to form a process of moving toward the single currency system.

The second stage began on January 1, 1994. The European Monetary Institution (EMI) was created to supervise and make decision on the monetary policy cooperation. Maastricht criteria were used to determine qualified members of the single currency area. The criteria consist of a country's inflation and long term interest rates that represent the high degree of price stability, the durability of convergence, the sustainability of the government fiscal position and the exchange rate stability. As mentioned before, eleven countries were accepted to be part of the Eurozone whereas Britain, Denmark and Sweden decided not to take part for this moment.

The final stage of the EMU was launched on January 1, 1999. The euro is at first not a tangible currency but it is created for the accounting system and can be used as a mean of payment as well as a store of value. Euro notes and coins will be introduced in January 2002 and national currencies will be irrevocably withdrawn. Most experts confidently predict that the euro will rise against the dollar.

The EMI which eventually becomes the European Central Bank (ECB) is clearer and more explicit than that of the Bundesbank (Deutschland, December/January 1998). Its obligation is to determine interest rates and regulate money supply in order to maintain price stability. The ECB will put its trust in a money supply strategy, based on the Bundesbank model, complemented by elements of direct inflation control. The highest decision-making body of the Eurosystem is the Governing Council, which has 17 members; the six members of the Executive Board of the ECB and the 11 governors of the national central banks of the participating countries. Monetary policy decisions are taken on the basis of one person, one vote. The monetary policy discussions in the Governing Council are based on thorough and balanced analytical input. The focus is clearly on developments in the euro area as a whole. The Eurosystem is truly independent institution, completely devoted to

its primary objective of achieving price stability, and with the power to take and implement decisions efficiently.

After more than one year from the launch of the euro, it naturally established itself as one of the world's leading currencies. Given the size of the euro area economy – comparable to that of the United States – it is only natural that the euro has been popular as a currency for international bond issuance. EU-dominated bonds accounted for more than 40% of the volume of new issues during 1999, which is comparable to the market share of bonds dominated in the US dollar. The gross issuance of corporate bonds denominated in euro increased by almost 300% in 1999 compared with 1998. The increase was particularly large for issues with a lower rating, for example issues with a Baa-rating increased 500%, albeit from very low levels. The improved depth and width of the euro area bond markets are important factors behind the large increase in mergers and acquisitions in the euro area. In the longer run, this process is likely to lead to improved competitiveness and higher growth potential for the euro area as a whole.

Despite the euro's popularity as a currency for bond issuance, many economists have not yet witnessed a corresponding interest in the euro on the investors' side. This is probably one of the factors affecting the euro exchange rate. There are reasons for investors' cautious attitude to the euro. It is clear that investors want to assess carefully both cyclical and structural developments in the new currency area's economies, its financial markets and overall economic policies, before embracing the euro.

The limited attractiveness of investments in euro is most likely affected by the still prevailing segmentation of the financial markets in Europe. In spite of the rapid integration, there is still a long way to go until the financial markets in the euro area become comparable with those in the United States as regards depth, liquidity and the variety of instruments on offer. There are also many uncertainties surrounding the structural developments and policies affecting the future competitiveness of the euro area economies. Investors are wary of the fact that progress on the implementation of necessary structural reform, notably in order to improve labor market flexibility and with a view to improving the functioning of social security and pension systems, is long overdue in most EU Member States.

2. The Impact of the Euro on Macroeconomic Variables

Some economists including Canzoneri and Rogers (1990), Eichengreen (1991), Rucci (1997) and Bayoumi and Eichengreen (1997) have carried out studies of the European single currency area based on the concept of optimal currency area suggested by Mundell (1961). The main question is whether it is beneficial for the 11 countries to join the monetary union. The most popular model which deals with this question measures the real divergence between member countries (the degree to which the growth rates of output and employment divert as a result of asymmetric shocks) against the degree of flexibility of the labor markets and the interregional mobility of labor. The reasoning behind this is that countries experiencing high degrees of real divergence will need quite a bit of flexibility in labor institutions and labor mobility. The studies conclude that the model of the European Monetary Union is seriously flawed from an economic point of view. The degree of real divergence exceeds the flexibility of labor institutions and the degree of interregional labor mobility. EMU seems likely to remain a second-best option at best.

The euro zone is not a region whose constituent parts are affected in broadly the same way by typical economic disturbances, or among whose constituent parts labor moves freely. Disparities in relative prices are greater among the countries in the Euroland than among American states.

Europeans are so reluctant to move from one region to another, or even one locality to another, in search of work. Even though every citizen of the Union has the right to work or reside in another Member State, few actually choose to do so. The OECD estimates that the number of EU nationals resident in another Member State is only 5.5 million out of 370 million, equivalent to 1.5% of the population. The study also identifies a number of disincentives to job mobility within the euro area. They include: a lack of information about job opportunities in other regions, limited cross-border portability of social protection and supplementary pension rights, a lack of comparability and reciprocal recognition of professional qualifications and restrictions on public sector employment.

As mentioned before, many studies of the benefits and the impacts of the euro conclude that it will accelerate the growth of the 11 members of the

Euroland, and the net impacts from both trade creation and trade diversion on the non-EU countries will be positive. The argument is that there are major concerns of Euroland. First, economic policy in the euro area as a whole will be ill-judged, leading to a recession that discredits the whole venture. Second, the system will prove too inflexible to cope with local economic shocks (or the asymmetric shocks) because the business cycle of each country fluctuates in the different patterns. To be consistent with the stability pact, it implies that governments should aim for a structural deficit of 1% of GDP or less. The costs would be large. Germany, for example, would need to raise taxes by more than 3% of GDP to keep its structural deficit at 1% of GDP between now and 2030 (Table 4).

Table 4: Tax Increases and Fiscal Targets, as % of GDP

	A	B	C
Belgium	1.2	1.3	0.0
Finland	0.6	0.1	0.2
Germany	3.3	3.0	3.0
Italy	-0.4	-0.3	-1.4
Netherlands	1.2	1.0	0.7
Spain	0.6	0.2	0.1

Note: A = Holding budget deficit to 1% of GDP over cycle.

B = Reduce public debt to 60% of GDP by 2030.

C = Stabilize debt ratio at 1997 level.

Source: OECD

After more than one year from the launch of the euro, important questions remain as to whether the benefits of the single currency in terms of reduced uncertainty and transactions cost outweigh the potential costs of a “one size fits all” monetary policy and exchange rate. As a contribution to this debate, I have developed a series of EMU Convergence Indices (ECIs) that combine two data sets concerning ten key macroeconomic indicators. The first set includes the five variables used in the Maastricht criteria: inflation, long-term interest rates, government debt and deficits and exchange rate volatility. The second set includes five real and/or cyclical variables: annual GDP growth, the estimated gap between actual and trend output, unemployment, the current account balance and short-term interest rates.

To begin with, I look at the relative convergence with the Euroland average for the EU countries together with Norway, Switzerland, Hungary, Poland and the Czech Republic based on latest available actual or estimated data for 1999. As shown in Table 5, the results of this analysis confirm that Germany and France represent the two key convergence benchmarks within Euroland.

These two large economies are followed by most of the other current EMU members, with the notable exception of Ireland, which is by far the most divergent of all the countries considered on real indicators and also now has the highest inflation rate in Western Europe. Some of the other small or medium-sized EMU countries, such as Spain, the Netherlands and Portugal, also show a high degree of real divergence from the Euroland average at present, even though they all score well against the Maastricht criteria. Interestingly, the UK is the least convergent of the four EU countries currently outside EMU, although it is not far behind Denmark and Greece. As would be expected, the non-EU countries are generally the least convergent with Euroland at present.

I have also looked at changes in the EMU convergence rankings since 1992. Positive changes indicate higher convergence ranking in 1999 than in 1992.

As shown in Table 6, Germany has moved up 4 places in the ranking from 5th in 1992 to 1st in 1999. The temporary cyclical boom resulting from German reunification meant that France was ranked first in the Euroland convergence league table in 1992, with the newly-reunited Germany only fifth. The fact that Germany was nonetheless still the anchor country in the ERM contributed significantly to the problems experienced in 1992-93.

Table 5: EMU Convergence Index, 1999

Rank	<25	<50	>50	>100
1.Germany	x			
2.France	x			
3.Belgium	x			
4.Austria		x		
5.Spain		x		
6.Sweden		x		
7.Italy		x		
8.Netherlands		x		
9.Portugal		x		
10.Greece		x		
11.Denmark		x		
12.UK		x		
13.Finland		x		
14,Switzerland			x	
15.Czech Rep.			x	
16.Norway			x	
17.Ireland			x	
18.Poland			x	
19.Hungary				x

Source: own calculation

The Southern European countries have all moved strongly up the EMU convergence league table since 1992, particularly on the Maastricht criteria. This allowed Italy, Spain and Portugal to qualify for first wave EMU membership and has enabled Greece to emerge as a strong candidate for EMU membership from 2001.

Table 6: Changes in EMU Convergence Country Rankings

	Positive Changes	Negative Changes
Germany	x	
France		x
Belgium	x	
Austria		x
Spain	x	
Sweden	x	
Italy	x	
Netherlands		x
Portugal	x	
Greece	x	
Denmark		x
UK		x
Finland	x	
Switzerland*		
Norway		x
Ireland		x

Note: *=0

Source: own calculation

The position of Finland is particularly interesting in that it could also be a model for some of the Central and Eastern European countries. In 1992, Finland was still outside the EU and only just recovering from the collapse of the USSR, with which they had very strong historic trading links. By 1999, Finland had not only fully integrated into the EU and met the Maastricht criteria for first wave EMU entry, but had moved up towards the middle of the league table on the real convergence index, having been ranked last on this measure in 1992. In contrast, Ireland's exceptional economic performance has caused it to diverge ever further from the Euroland average in terms of cyclical indicators.

Denmark and the UK, which were ranked in the top six of the convergence league table in 1992 but chose to opt out of the first wave of EMU, have become somewhat less convergent relative to the EMU participants. The opposite appears to be true of Sweden, however, whose economic cycle has

become more convergent with that of the large Euroland countries since the early 1990s, despite not being in the first wave for EMU.

I have also observed that the euro area is experiencing a clear upturn in economic activity. The ECB is now to ensure that this upturn is translated into a protracted period of sustainable non-inflationary growth. In parallel with the improved economic prospects, the balance of risks to future price stability has gradually moved towards the upside. The prolonged deviation of monetary growth from the Eurosystem's reference value of 4.5% indicates that liquidity conditions remain generous in the euro area. The strong rise in oil prices and the downward movement of the euro exchange rate have put pressure on import and producer prices. There is a need to ensure that these pressures do not feed into lasting effects on consumer prices. These concerns prompted the Governing Council to raise the Eurosystem's policy interest rates consistently. However, short-term interest rates in the euro area still remain at a very low level.

The analysis indicates that the use of a single currency will continue to contribute to efficiency gains and increased welfare in the euro area as a whole. One element which is crucial to this development is that the Eurosystem's monetary policy is firmly directed toward price stability. However, the policy is not the only factor affecting the prospects of the euro area economy. It is essential that fiscal and structural policies are conducive to sustainable non-inflationary growth. It is to note that in some of the smaller European economies, which were badly hit by the economic crisis at the beginning of the 1990s, the adjustment, consolidation and liberalization processes have so far been more rapid than in the larger economies of the euro area. The fact that the larger economies are lagging behind in the implementation of structural reforms is problematic. Moreover, it is clear that the current institutional and market arrangements in the euro area are still far from optimal.

3. The Impact on the ASEAN Economies

Although the euro has been launched successfully, its exact impact on the rest of the world and on ASEAN economies in particular is by no means certain. It will depend on two related questions. The first one is whether euro will be able to challenge the dollar as the world's dominant reserve currency. The second is what exactly will be the impact of the new European currency on stability of the global monetary system.

The EU's 30% share of world output and 20% of world trade seem to indicate its inevitable rise to a status of an important international currency. However, the extent to which euro will be able to challenge dollar's supremacy is rather uncertain since a significant part of dollar's international attractiveness is the size, depth and liquidity of America's capital markets. US market for domestic securities, for example, is twice as large as the combined markets of all EU countries, and the increasing European financial integration is unlikely to challenge the supremacy in capital markets any time soon.

Most of the demand for euros will come from central banks, which may choose to diversify their reserves gradually so as assets are shifted into euro. It seems worthwhile to consider in more detail the possible reactions of both European and non-European central banks. The total foreign-exchange reserves of EU members currently amount to about \$370 billion, excluding gold reserves. After 1999, European central banks' need for holding reserves as a cushion to meet temporary foreign currency shortages and as a means of supporting their currencies are reduced as the need to defend currencies against intra-European volatility is eliminated. At the same time over 60% of trade will be carried out in euros. The average ratio of foreign-exchange reserves to imports in EU is estimated to jump from 29% at present to 59%. As a result, central banks have excess dollar reserves, which are most likely to be dumped in the markets. The creation of a single European currency will boost the euro's attractiveness as an international currency for invoicing trade, as a tool of intervention and as an investment. If the European Central Bank will be able to establish its inflation-fighting credibility, there will be a strong case for non-European central bank to hold more euros. For example, Japan's foreign-exchange reserves are believed to consist almost entirely of dollars, and thus in the long term it will be simply prudent to diversify away from the greenback. The Chinese central bank also announced it is planning to use more euros. About 60% of the Chinese \$140 billion worth of reserves are currently held in US dollars against a mere 20% in European currencies. In the near future a 40%-40% is said to be favored, resulting in \$28 billion dollars being sold to buy euros.

It is also expected that some ASEAN countries whose currencies are linked to US dollar will shift these links to the euro. As of January 2000, ASEAN countries considered to have dollarization are Vietnam, Cambodia,

Laos, Thailand and the Philippines. The dollarization occurs when residents of these countries extensively use the US dollar alongside or instead of the domestic currency. However, the euro can become a stronger rival to the dollar as the foreign currency of choice in these countries.

Another impact of the single currency is likely to be in trade and financial linkages. Increased activity and high import demand in the euro zone will lead to increased exports from ASEAN economies. I use aggregate trade data to attempt to assess the early effects of the euro on trade between Europe and the ASEAN economies. The trade flows between the two regions between 1995-98 and 1999 are compared. The results are shown in Table 7. Although the fraction of trade between the two regions has risen, a number of factors have contributed to this result. Reduction of tariffs and alteration of exchange rate policy during 1997 and 1998 due to financial crisis in ASEAN countries were both important. Based on early returns, the impact of the euro over its first year on trade between Euroland and ASEAN countries does not appear to have been large relative to the effects of these other events. Bekx (1998) may be right to conclude that the net impacts from both trade directions on the third countries will be positive.

Table 7: Changes in Net Trade Flows between Euroland and ASEAN countries, 1995-98 and 1999, %

	Agriculture	Manufacturing	Services	Average
Singapore	0.11	1.45	1.98	1.18
Malaysia	1.22	1.48	1.11	1.27
Thailand	2.45	1.01	0.24	1.23
Philippines	1.11	0.98	0.55	0.88
Indonesia	1.45	1.04	0.99	1.16
ASEAN5	1.27	1.19	0.97	1.14

Source: Eurostat and own calculation

There also might be some investment by private institutions such as insurance companies and pension funds in the euro zone that shift some of their portfolios into ASEAN market investments. Because investments outside their home countries but within the euro zone are reclassified as domestic currency investments, investors may find that EMU effectively eases constraints imposed by currency exposure requirements. ASEAN market economies could also

benefit from direct and portfolio capital inflows if converging asset returns in Europe lead global investors to increase their market holding in order to diversify across countries. However, the effect is so far marginal.

There are, however, some financial risks that ASEAN countries will now be exposed to: a successful EMU that raises productivity and growth could make Europe more attractive to investors and increase the cost of capital for ASEAN economies. Furthermore, increased competitiveness of European financial institutions and the greater depth of financial markets in the euro zone could lead companies in ASEAN countries to raise capital in euro rather than in their domestic currencies, thus challenging local capital market. This could, however, provide an incentive for such countries to strengthen their financial intermediation and build sound banking systems. I use micro data to attempt to assess the early effects of the euro on multinational companies currently operating in ASEAN countries. During January-February, 2000, about 87 companies are randomly classified as survey samples and asked to fill in the questionnaire concerning their business impact and a re-appraisal of the product and marketing strategy . As shown in Table 8, the effects are so far marginal.

Table 8: The Effects of the Euro on Business and Marketing Strategy, %

	Yes	No	Don't know
Payment systems	21.0	68.0	11.0
Trading and settlement	34.5	62.1	3.4
Risk management	27.4	57.4	15.2
Credit operations	42.8	25.7	31.5
Accounting	12.7	68.4	18.9
Re-appraisal of business strategies	10.4	25.9	63.7

Source: own calculation

However, the euro and the environment it will create bring with it many opportunities. At the same time there are many threats for the unprepared economies and countries. The ASEAN government and businesses have come to grips with the fact that the introduction of the euro is a global phenomenon with global consequences and must be prepared to take advantage of the opportunities and to mitigate the threats the euro poses. The challenge is for us to take actions and launch initiatives to make us more competitive, as well as spur growth in our region.

5. Concluding Remarks

Aggregate and micro data between Euroland and ASEAN countries suggest that the euro's impact on ASEAN economies is marginal. Changes in direct trade between ASEAN countries and the euro countries between 1995-98 and 1999 are relatively small. In the same way, the effects of the euro on business and a re-appraisal of the product and marketing strategy of multinational companies currently operating in ASEAN countries are small. Moreover, most local currencies in ASEAN countries continue to at least benchmark their currencies against the US dollar, making the greenback the dominant currency in their central bank reserves. However, it might be too early to give a concrete conclusion.

Not only the 11 European countries that unified their currencies on January, 1999, but the process of euronization will include Central and East European countries as well as some countries in Europe, Africa and the French territories. These countries will officially or simiofficially or unofficially tie their currencies to the euro, and some of them will peg their currencies to a basket which will give a significant weighting to the euro. If all these countries are included, euro-related countries will receive more than 20% of ASEAN exports. With the advent of the euro will also come reductions in currency risk and other transaction costs, which should strengthen trade relations between ASEAN countries and Europe. Many suppliers from ASEAN countries may have to invoice their European customers in euros, thus further enforcing the euro influence in the region.

Moreover, Europe also remain the largest supplier of bank capital to ASEAN countries. The latest available information of external bank debt provided by the Bank for International Settlements indicates that 34% of bank loans that ASEAN countries had received in 1997 had come from EMU countries. The EU as a whole accounted for 43% of the loans, compared to 30% from Japan, and about 8% from the United States.

European capital markets are integrating and liquidity is increasing. This leads to more lending to ASEAN countries when the situation stabilizes. Even if ASEAN countries end up relying less on bank borrowing once they have recovered from economic crisis, European banks will still be the leading lenders to the region. There will also be an increase in capital-markets financing.

All this future capital outflow from Europe to ASEAN countries is more likely to be denominated in euros. An imminent problem for companies in ASEAN countries of servicing loans in euros is currency risk, which means that they will keep a close eye on their euro reserves for currency matching purpose. More important is Europe's position as a major supplier of new technology to ASEAN countries. With further economic integration, high-tech companies will consolidate in Europe and then expand strategically outside. They might try ASEAN countries because of their national resources, cheap labor and AFTA scheme.

Lastly, the demand for euros by governments of ASEAN countries is also likely to increase gradually. The dollar remains the major official reserve currency in the region, although its dominance has weakened. In the ASEAN region, the euro may well challenge the yen and become the second major reserve currency.

References

- Bayerische Landesbank (1999), Optimism on the Eve of the Euro's Launch, the Economist, March 20:21
- Bayoumi, T. and B. Eichengreen (1997), Ever Closer to Heaven? An Optimum -Currency-Area Index for European Countries, European Economic Review, 41.
- Bekx, P. (1998), The Implication of the Introduction of the Euro for Non-EU countries, a paper presented at a seminar on the implication of the single European currency on international trade and banking, October 14, Bangkok.
- Bergsten, F. (1997), The Dollar and the Euro, Foreign Affairs, June/August.
- Canzoneri, M.B. and C.A. Roger (1990), Is the European Community an Optimal Currency Area? Optimal Taxation Versus the Costs of Multiple Currencies, American Economics Review 80(3), June.
- Chaipan, C. (1987), Auswirkung der EG-Agrarmarktpolitik auf die Reimporte aus Drittlaendern, Agrarwirtschaft, Jahrgang 36, Heft 10, Oktober.
- Chaipan, C. (1989), The European Single Market: Effects on ASEAN Exports, Chulalongkorn Journal of Economics 1(2), August: 265-279.
- Chaipan, C. (1990), Trade in Agricultural Products between Thailand and ASEAN Countries: An Economic Analysis, Chulalongkorn Journal of Economics 2(1), April: 68-88.
- Cuyvers, L. (1996), The Trade Diversion Effects on ASEAN of the European Union Enlargement with EFTA Countries and the Association Agreements with Eastern Europe, a paper presented at the fifth convention of the East Asian Economic Association, October 25-26, Bangkok.
- Deutschland (1998), Der Euro kommt, Magazine on Politics, Culture, Business and Science 6/98, December/January: 32-35.
- Eichengreen, B. (1991), Is Europe an Optimal Currency Area, NBER working paper 3579.
- Haemaelaeninen, S. (2000), The Euro – Experiences and Prospects, speech delivered at the euro capital markets forum, Paris, April 5.
- Kreinin, M.E. and M.G. Plummer (1992), Effects of Economic Integration in

- Industrial Countries on ASEAN and the Asian NIEs, *World Development* 20(9): 1345-1366.
- Krugman, P. (2000), Euro Disappoints Its Many Proponents, *Bangkok Post*, May 4.
- Mack, C. (2000), Basics of Dollarization, joint economic committee staff report, office of the chairman, January.
- McCauley, R. (1997), The Euro and the Dollar, BIS working paper 50.
- Mundell, R.A. (1961), A Theory of Optimum Currency Area, *American Economic Review* 51.
- OECD, (1999), EMU – Facts, Challenges and Policies, Paris, 24 March.
- Rucci, L. (1997), A Model of an Optimum Currency Area, IMF working paper 97/76.
- Salvatore, D. (1998), The Euro as an International Currency, a paper presented at the fourth ECSA-world conference, September 17-18, Brussels.
- The Economist (1999), The Euro's First Test, *Economics Focus*, January 9: 72.
- The Economist (1999), Gambling on the Euro, *Europe's New Currency*, January 2: 19-22.
- The Economist (1999), The Euro Neurosis, February 27: 81-82.
- Werner. R. (1999), Don't Bet on the Euro Being Strong – the Yen is the Main Winner of the Introduction of the Euro, profit research center Ltd. *Newsweek Japan*, April.