Chapter 4
Analysis of Country Risk

Investing in overseas countries or lending to foreign borrowers, investors (whether they like it or not) are taking the sovereign risk.* Country risk management is therefore a critical concern for many international investors. Moreover, the painful lessons of the international debt crisis in Latin America during the early 1980s which led to sovereign defaults on foreign currency debts and the burgeoning international lending and investment in developing markets over the past decade (particularly in Latin America and Asia) have made country risk analysis a matter of critical concern for both investors and analysts. Thus, in order to avoid countries with excessive risk and to reduce any existing risk exposure, investors generally evaluate the country risk for the country they invest. However, despite varieties of analytical indicators, an assessment of country risk is usually based on some common macroeconomic indicators such as economic growth, inflation, debt and external position, as well as political stability.

Therefore, corresponding to the macroeconomic overview of the ASEAN economies provided in the previous chapter, this chapter provides an analysis of the country risk presented by the ASEAN economies. In particular, a brief analysis of the relative economic performances of the ASEAN countries based on given score ranking is provided. Then, an overall measure of country risk (the z score) which aggregates information on relative risk of each country is analyzed.

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* The words country risk and sovereign risk are used interchangeably by many analysts. However, sovereign risk has a more restricted usage as it is generally limited to government and government guaranteed loans. In addition, the sovereign governments have traditionally been given the highest credit rating for foreign currency debt. This is because the governments have the power to command all the foreign currency available to the economy.

4.1 A brief summary of the ASEAN countries' economic performance based on given relative score ranking

From the six macroeconomic variables analyzed in the previous chapter, if we score and rank each individual ASEAN country based on these variables, the results are as shown in Tables 3.9 and 3.10. For each variable, the score is given based on how many standard deviations a country is above or below the mean value.* The score will range from 1 to 10.** The mid-score of 5.5 means that the country is on average for that particular variable, while the scores above this level (six to ten) indicate that the country has outperformed from the group, and the scores below 5.5 (one to five) indicate that the country has underperformed.*** Thus, the higher the score the better the country relative to the group.

Therefore, as can be seen in Table 3.9, the Philippines has underperformed in all variables excluding the current account deficit.† This is partly attributable to its lower level of investment activities in line with relatively lower foreign capital

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* To calculate how many standard deviations a country is above or below the mean value; first, for each variable, we calculate the mean value of the ASEAN countries as well as its standard deviation. Then, we take a difference between the value of a country for that variable and the mean value, and lastly divide such difference by the standard deviation.

** The score of 1 to 10 is assigned as follow:

Score	Description	Score	Description	Score	Description
5	Below the mean by 0.26-0.50SD	5.5	Below or Above the mean by < 0.26SD	6	Above the mean by 0.26-0.50SD
4	Below the mean by 0.51-0.75SD			7	Above the mean by 0.51-0.75SD
3	Below the mean by 0.76-1.00SD			8	Above the mean by 0.76-1.00SD
2	Below the mean by 1.01-1.25SD			9	Above the mean by 1.01-1.25SD
1	Below the mean by >1.25SD			10	Above the mean by >1.25SD

*** The country outperforms when it has real GDP growth, budget surplus and foreign reserves above the average or the mean value of the group. In contrast, for three variables, namely inflation, current account deficit and external debt, the country outperforms when the values of these factors are below the average value of the group.

† Philippines and Indonesia outperform in the current account positions whereas Malaysia and Thailand underperform in this factor, Nonetheless, it does not necessarily mean that Malaysia and Thailand have higher risk. This is because the large deficits in the current account also reflect the strong import of raw materials and components for exports manufacturing purpose.

inflows. Considering real GDP growth, inflation and external debt, among the ASEAN countries, Malaysia performed best as a result of its strong export growth, coupled with its relatively high savings rate and good macroeconomic management. Meanwhile, Thailand performed best in the budget and reserves positions owing mainly to large amount of tax collections and strong foreign capital inflows. Among the ASEAN countries, Indonesia performed on average on all variables (excluding the current account deficit).

Thus, when considering all these macroeconomic variables together, it can be concluded that, among these four ASEAN countries, Malaysia and Thailand performed relatively well during 1991 and 1996 whereas Indonesia's performance was on average and the Philippines performed worse than the group. However, the macroeconomic performance of Thailand was getting worse in 1996, as can be seen in Table 3.10.

Table 3.9
Comparison of the relative scores* of macroeconomic performance among ASEAN countries from 1991 to 1996.

	1991	1992	1993	1994	1995	1996
Real GDP growth (%)						
Indonesia	5.5	5.5	5.5	5.5	5.5	7
Malaysia	7	7	7	8	8	9
Philippines	1	1	1	1	1	1
Thailand	7	7	7	7	6	4
Consumer price inflation (%)						
Indonesia	5.5	4	2	4	2	4
Malaysia	8	8	9	10	10	10
Philippines	1	1	5	3	5	3
Thailand	7	9	9	8	9	6
Current account balance (% of GDP)						
Indonesia	7	8	10	10	8	9
Malaysia	2	5.5	5	2	2	5
Philippines	9	8	3	5.5	9	7
Thailand	3	1	4	4	3	1
Budget balance (% of GDP)						
Indonesia	5.5	5	5.5	2	7	10
Malaysia	3	4	5.5	10	3	5.5
Philippines	3	3	1	3	2	1
Thailand	10	10	10	7	10	5.5
Non-gold Reserves (Month of imports)						
Indonesia	5.5	5	4	5	5.5	5
Malaysia	5	6	9	5.5	5	4
Philippines	2	1	1	2	2	3
Thailand	10	10	8	10	10	10
External debt (% of GDP)						
Indonesia	3	2	4	4	5	5.5
Malaysia	8	9	8	10	10	10
Philippines	2	3	1	1	1	1
Thailand	9	8	8	7	5.5	6

*The scores are based on the calculation from the data in Table 3.1.

Table 3.10:
Comparison of the relative scores of macroeconomic performance among ASEAN countries during 1991 and 1996.

Macroeconomic Indicators	Indonesia	Malaysia	Philippines	Thailand
1. Economic Growth	5.5	8	1	7
2. Inflation	4	9	1	8
3. Current Account Deficit	9	3	7	2
4. Budget Balance	5.5	4	2	10
5. International Reserves	5	5.5	1	10
6. External Debt	3	9	2	8

4.2 Analysis of the ASEAN's country risk during 1991 and 1996: using the z score.

In accordance with the macroeconomic performances of the ASEAN countries analyzed in chapter 3, six macroeconomic variables are then combined to create an overall measure of the country risk—the z score, which will be used for the analysis in this section. In particular, six macroeconomic variables indicating the risk elements of developing economies are chosen for their non-redundancy and availability. These six variables include real GDP growth, inflation ratio of current account deficit to GDP, ratio of budget balance to GDP, ratio of external borrowing to GDP and reserves coverage.*

To recapitulate how the overall measure of country risk is created, following Dym(1997), a z score, which is the particular country's deviation from the average value of the group of countries that scaled by the standard deviation, is calculated for each variable. Then, for each country, corresponding to six risk variables, all six z scores are summed up to provide an overall z score for a country.** Thus, the higher the overall z score, the more risky the country relative to the group.

* For comparison purposes, current account deficit, budget balance and external borrowing are scaled according to the size of the economy, while reserves coverage is measured in number of months that imports can be paid for using existing foreign reserves.

** For three variables, namely real GDP growth, budget balance and foreign reserves, the z scores are multiplied by -1 before being summed up to create an overall z score. This is because these variables are positive factors which tend to reduce the country's risk position.

In this section, analysis of the z score is firstly provided among the ASEAN countries. Then, as investment capital generally flows among regions, and emerging markets in Asia and Latin American regions have become more attractive to international investors (accounting for more than 70% of the private capital flowing to developing countries during the 1990s), the z score is comparatively analyzed among the ASEAN and Latin American countries.

ASEAN Countries

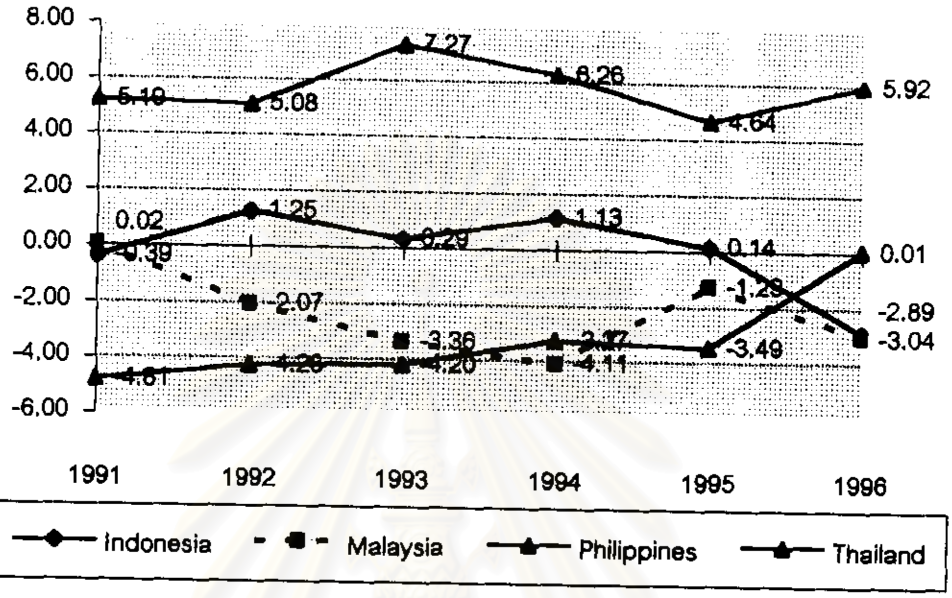
Exhibit 3.28 plots the z score risk measure for the ASEAN countries. As can be seen from the graph, among the four ASEAN countries, the Philippines was the most risky country during 1991 and 1996. The **Philippines**' relative risk increased in 1993, owing mainly to a significant increase in the country's current account deficit. However, the country's position improved steadily in 1994 and 1995 as its current account deficit narrowed and its budget position turned into surplus.

Indonesia's position held relatively stable during 1991 and 1995 and showed marked improvement in 1996 due to a decline in its inflation rate. However, with a relatively high level of both inflationary pressure and external indebtedness, compared with Malaysia and Thailand, Indonesia was more risky during 1991 and 1995.

Malaysia showed steadily improvement during 1991 and 1994 due to the decline in the country's inflationary pressure in line with an improvement in its budget position. However, with the increase in the country's current account deficit and inflation, its relative risk increased in 1995. Nonetheless, the slowdown in the country's economic growth in 1996 eased its economic overheating pressures as its inflation rate declined and its current account deficit narrowed, thus reducing its relative risk to the pre-1995 level.

Meanwhile, **Thailand**'s position remained relatively stable during 1991 and 1995, despite a slight increase in its relative risk. However, with the reduction in its economic growth whereas the country's current account deficit and inflation remained relatively high, Thailand's relative risk increased dramatically in 1996, thus reflecting its weakening fundamentals.

Exhibit 3.28: ASEAN: z score risk rankings.



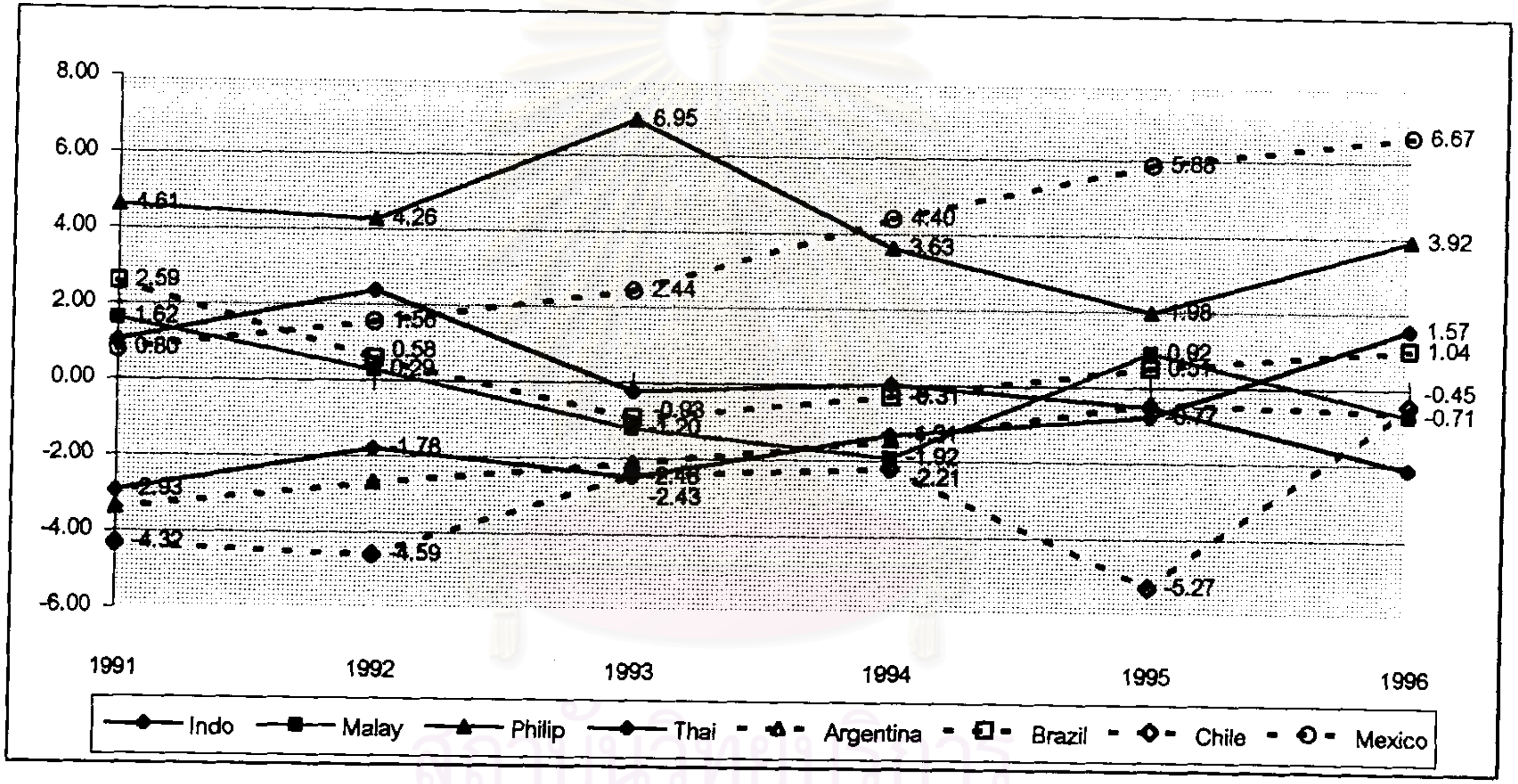
[1]**The z score is calculated based on data from International Financial Statistics and EIU.**

[2]**The higher the z score the more risky the country relative to the group. Thus, the more the positive the value of z score, the riskier the country.**

ASEAN and Latin American Countries

Comparing the relative risk between the ASEAN and Latin American countries, as in Exhibit 3.29, it can be found that the Philippines was the most risky country during the pre-1994 period, but after such period Mexico has the highest risk. This is because the relative risk of Mexico has increased steadily during 1991 and 1996, owing primarily to its relatively low level of economic growth combined with a relatively large current account deficit relative to its economy. Furthermore, the Mexican financial crisis in 1994 undermined investor confidence in its economy causing large capital outflows which resulted in negative economic growth of 6.2% in 1995 and a reduction in its foreign reserves as well as the increase in inflationary

Exhibit 3.29: ASEAN and Latin America Countries: Z Score Risk Rankings.*



* **Calculation is based on the data from the International Financial Statistics.**

Table 3.11: ASEAN and Latin America countries: Z scores.*								
	Indonesia	Malaysia	Philippines	Thailand	Argentina	Brazil	Chile	Mexico
1991	1.03	1.62	4.61	-2.93	-3.39	2.59	-4.32	0.80
1992	2.37	0.29	4.26	-1.78	-2.69	0.58	-4.59	1.56
1993	-0.22	-1.20	6.95	-2.48	-2.13	-0.93	-2.43	2.44
1994	0.01	-1.92	3.63	-1.31	-1.46	-0.31	-2.21	4.40
1995	-0.53	0.92	1.98	-0.77	-0.42	0.51	-5.27	5.88
1996	-2.12	-0.71	3.92	1.57	-0.61	1.04	-0.45	6.67

* Calculation is based on data from the International Financial Statistics.

pressure and external indebtedness. As a consequence, Mexico's relative risk has since been extremely high, despite an improvement in its current account position.

By contrast, among the ASEAN and Latin American countries, Chile had the least relative risk during the period of study, although its average inflation rate was higher than the average inflation rate of the ASEAN countries. This was due primarily to its relatively high stock of foreign reserves and its relatively small current account deficit.* Similarly, Argentina was another country with relatively low risk. In fact, its risk level was comparable to that of Thailand, despite its high level of inflation during 1991 and 1993.** This was attributable to its relatively low current account deficit and high foreign reserves compared with the ASEAN countries. As for Brazil, despite its extremely high consumer price inflation, with the smallest deficit in its current account position and the highest foreign reserves in months of imports, its relative risk was at the same level as those of Malaysia and Indonesia.

Furthermore, looking at the year 1996, it can clearly be seen from the z score risk rankings that the relative risks of Chile, Mexico, Philippines and Thailand increased significantly, mainly because of their relatively high current account deficits and inflationary pressures.

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* Except a small deficit in the country's trade balance in 1993 and 1996, Chile has generally run surpluses in its trade balance. As a result, Chile's current account position has been in small deficit.

** Argentina's inflation declined dramatically since 1994 to a very low level of 0.2% in 1996.

To recapitulate, analyzing the relative risk of the ASEAN countries based on their macroeconomic performances, it is found that Philippines had the highest risk among the ASEAN countries during the 1990s; however, its relative risk improved steadily since 1993 owing mainly to a decline in inflationary pressure and an improved investment climate stimulated by increased foreign capital inflows and political stability. In the meanwhile, the relative risk of Indonesia was on average, and the relative risks of Malaysia and Thailand were relatively low. However, the relative risk of Thailand increased significantly in 1996 due to its economic slowdown and its relatively high current account deficit. Furthermore, comparing the relative risk of the ASEAN and Latin American countries, it is found that the relative risk of Mexico increased significantly above that of the other countries since 1994. Moreover, the relative risk of every country in both the ASEAN and Latin American regions (excluding Indonesia and Malaysia) increased in 1996, clearly reflecting their weakening fundamentals.