### **APPENDIX 1**

# LIST OF CORE PRINCIPLES FOR EFFECTIVE BANKING SUPERVISION

### Preconditions for Effective Banking Supervision

1. An effective system of banking supervision will have clear responsibilities and objectives for each agency involved in the supervision of banking organisations. Each such agency should possess operational independence and adequate resources. A suitable legal framework for banking supervision is also necessary, including provisions relating to authorisation of banking organisations and their ongoing supervision; powers to address compliance with laws as well as safety and soundness concerns; and legal protection for supervisors. Arrangements for sharing information between supervisors and protecting the confidentiality of such information should be in place.

### Licensing and Structure

2. The permissible activities of institutions that are licensed and subject to supervision as banks must be clearly defined, and the use of the word "bank" in names should be controlled as far as possible.

3. The licensing authority must have the right to set criteria and reject applications for establishments that do not meet the standards set. The licensing process, at a minimum, should consist of an assessment of the banking organisation's ownership structure, directors and senior management, its operating plan and internal controls, and its projected financial condition, including its capital base; where the proposed owner or parent organisation is a foreign bank, the prior consent of its home country is a foreign bank, the prior consent of its home country supervisor should be obtained.

4. Banking supervisors must have the authority to review and reject any proposals to transfer significant ownership or controlling interests in existing banks to other parties.

5. Banking supervisors must have the authority to establish criteria for reviewing major acquisitions or investments by a bank and ensuring that corporate affiliations or structures do not expose the bank to undue risks or hinder effective supervision.

#### Prudential Regulations and Requirement

6. Banking supervisors must set prudent and appropriate minimum capital adequacy requirements for all banks. Such requirements should reflect the risks that the banks undertake, and must define the components of capital, bearing in mind their ability to absorb losses. At least for internationally active banks, these requirements must not be less than those established in the Basle Capital Accord and its amendments.

7. An essential part of any supervisory system is the evolution of a bank's policies, practices and procedures related to the granting of loans and making of investments and the ongoing management of the loan and investment portfolios.

8. Banking supervisors must be satisfied that banks establish and adhere to adequate policies, practices and procedures for evaluating the quality of assets and the adequacy of loan loss provisions and loan loss reserves.

9. Banking supervisors must be satisfied that banks have management information system that enable management to identify concentrations within the portfolio and supervisors must set prudential limits to restrict bank exposures to single borrowers or groups of related borrowers.

10. In order to prevent abuses arising from connected lending, banking supervisors must have in place requirements that banks lend to related companies and individuals on an arm'slength basis, that such extensions of credit are effectively monitored, and that other appropriate steps are taken to control or mitigate the risks.

11. Banking supervisors must be satisfied that banks have adequate policies and procedures for identifying, monitoring and controlling country risk and transfer risk in their international lending and investment activities, and for maintaining appropriate reserves against such risks.

12. Banking supervisors must be satisfied that banks have in place systems that accurately measure, monitor and adequately control market risks; supervisors should have powers to impose specific limits and/or a specific capital charge on market risk exposures, if warranted.

13. Banking supervisors must be satisfied that banks have in place a comprehensive risk management process (including appropriate board and senior management oversight) to identify, measure, monitor and control all other material risks and, where appropriate, to hold capital against these risks.

14. Banking supervisors must determine that banks have in place internal controls that are adequate for the nature and scale of their business. These should include clear arrangements for delegating authority and responsibility; separation of the functions that involve committing the bank, paying away its funds, and accounting for its assets and liabilities; reconciliation of these processes; safeguarding its assets; and appropriate independent internal or external audit and compliance functions to test adherence to these controls as well as applicable laws and regulations.

#### Methods of Ongoing Banking Supervision

16. An effective banking supervisory system should consist of some form of both on-site and off-site supervision.

17. Banking supervisors must have regular contact with bank management and thorough understanding of the institution's operations.

18. Banking supervisors must have a means of collecting, reviewing and analyzing prudential reports and statistical returns from banks on a solo and consolidated basis.

19. Banking supervisors must have a means of independent validation of supervisory information either through on-site examinations or use of external auditors.

20. An essential element of banking supervision is the ability of the supervisors to supervise the banking group on a consolidated basis.

#### Information Requirements

21. Banking supervisors must be satisfied that each bank maintains adequate records drawn up in accordance with consistent accounting policies and practices that enable the supervisor to obtain a true and fair view of the financial condition of the bank and the profitability of its business, and that the bank publishes on a regular basis financial statements that fairly reflect its condition.

#### Formal Powers of Supervisors

22. Banking supervisors must have at their disposal adequate supervisory measures to bring about timely corrective action when banks fail to meet prudential requirements(such as minimum capital adequacy ratios), when there are regulatory violations, or where depositors are threatened in any other way. In extreme circumstances, this should include the ability to revoke the banking license or recommend its revocation.

#### Cross-Border Banking

23. Banking supervisors must practise global consolidated supervision over their internationally-active banking organisations, adequately monitoring and applying appropriate prudential norms to all aspects of the business conducted by these banking organisations worldwide, primarily at their foreign branches, joint ventures and subsidiaries.

24. A key component of consolidated supervision is establishing contact and information exchange with the various other supervisors involved, primarily host country supervisory authorities.

25. Banking supervisors must require the local operations of foreign banks to be conducted to the same high standards as are required of domestic institutions and must have powers to share information needed by the home country supervisors of those banks for the purpose of carrying out consolidated supervision.

Source : Basle Committee on Banking Supervision, Basle, September 1997c, Core Principles for Effective Banking Supervision(Basle: Bank for International Settlements).

#### **APPENDIX 2**

#### THE BASLE CAPITAL ACCORD

The Basle Capital Accord of 1998 defined capital, the numerator in the risk asset ratio, as follows: Tier 1 capital includes issued and paid -up share capital, non-cumulative preferred stock, and disclosed reserves from post-tax retained earnings. It is the highest quality capital, and should form no less than 50 percent of total regulatory capital. Tier II capital can include a range of other items, including undisclosed reserves that have passed through the profit and loss account; conservatively valued revaluation reserves; revaluation of equities held at historical cost can be included at a discount; general loan loss reserves, up to 1.25 percent of risk-weighted assets ; hybrid debt instruments available to support losses without triggering liquidation; and subordinated term debt, up to a maximum of 50 percent of Tier 1 capital. Goodwill and investments in other banks and financial institutions should normally be deducted. For most banks the use made of Tier II capital is much less than 50 percent.

The bank's assets are divided into four or more categories of risk, for instance, commercial loans, mortgage lending, interbank debt, and government debt. For each risk category, a risk weighting is establishing. This weighting, or coefficient, is applied to the amount of assets in each category. Normal credit risks are assigned a 100 percent rating, while the other risk categories carry a lower weighting, based on the risk of that category relative to normal credit risks. The amounts obtained for each of the categories are added to obtain the total of "risk-weighted assets," which is the denominator of the risk-weighted ratio. Off-balance sheet items are also included in the ratio, converted into credit equivalents by applying conversion factors reflecting the degree to which an off-balance sheet items reflect expected on-balance sheet credit commitments of the bank.\*\*

The Basle Committee considers that the risk-weighted ratio has three advantages over the gearing ratio. First, it does not penalize banks for holding relatively low-risk assets such as government securities; second, it allows for incorporation of off-balance sheet items; and third, it allows for better international comparisons of banks with different balance sheet structures.

#### \*\* Risk Weighted Capital Ratio (%) = <u>Capital Funds/Net Working Funds</u> x 100 Total Weighted Risk Assets

where, Total Weighted Risk Assets = [On-balance Sheet Items +(Off-balance Sheet Items x Conversion Factor)] x Risk Weights

Source : Basle Committee on Banking Supervision(1988a), International Convergence of Capital Measurement and Capital Standards(Basle: Bank for International Settlements).

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#### **APPENDIX 3**

### ECONOMY WITHOUT TRADE THOUGHT EXPERIMENT

First, imagine a world in which productivity in all countries, including the United States, rises at 1 percent per year. What would be the trend in our standard of living? Most people have no difficulty in agreeing that living standards in all countries will rise by 1 percent annually.

Now, suppose that productivity growth in the rest of the world rises to 3 percent, while it stays at 1 percent here. Now, what is the trend in our living standards? Many people automatically answer that our living standards will stagnate or even decline, because we will have trouble competing. But they're wrong.

The right answer is that our real income will still grow about 1 percent per year. After all, why do we care about productivity growth abroad? It matters only if it affects the quantity of imported goods we receive per unit of goods that we export, that is, the price of our exports relative to the price of our imports (known as our terms of trade). And productivity growth abroad need not hurt our terms of trade - it is equally likely to improve them. There are several ways to see this. One is to note that while growth abroad increases the competition we face, it also expands our overseas markets. Another is to realize that when foreign firms whose products compete with imports generally also become more productive. Yet another way to see the point is to realize that faster productivity growth in foreign industries that compete with our exports will generally be reflected in higher wage growth as well, which can more than wipe out any relative cost gain. (These are all different ways of looking at the same story)

In principle, then, the fact that our productivity growth lags behind growth abroad need not pose a problem. What about in practice? The actual U.S. terms of trade (excluding oil and farm products, which are subject to erratic movements) declined 15 percent from 1970 to 1980, and a further 2 percent from 1980 to 1991. These are very small numbers: since non-oil imports are only 7 percent of GDP, the drag on the U.S. standard of living was less than 1/10 of one percent per year during the 1970s, less than 1/50 of one percent after 1980.

In practice, then, the trend in U.S. living standards is determined by our own rate of productivity growth- full stop. International competition has nothing to do with it.

Source : Paul Krugman 1990. The Age of Diminished Expectation : Productivity Growth, London: The MIT Press.

## TABLE 1

# MANUFACTURING EXPORTS

		A CONTRACTOR OF THE OWNER	
YEAR	MANUFACTURING VALUE	GROWTH (% PER ANNUM)	
	ADDED AS % OF	OF MANUFACTURING	
	OVERALL REAL GDP	VALUE ADDED	
1986	20.9	7.5	
1987	22.5	13.4	
1988	24.4	17.6	
1989	25.5	14.2	
1990	26.9	15.7	
1991	28.3	13.9	
1992	28.9	10.5	
1993	30.1	12.9	
1994	31.6	14.7	
1995	33.1	14.5	

@ As of 1989, index of manufacturing production is 1985 = 100

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Sources : Bank Negara Malaysia Annual Report (various years) and Economic Report (various years)

### TABLE 2

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# MALAYSIA : CURRENT ACCOUNT BALANCE, 1990-1996 (RM million)

YEAR	CURRENT ACCOUNT		
1990	-2483		
1991	-11644		
1992	-5622		
1993	-7926		
1994	-14770		
1995	-21825		
1996	-12252		

Source : Bank Negara Annual Report (various year issues)

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# DIAGRAM 1

# A METHODOLOGY FOR EXCHANGE RATE ASSESSMENT : MEDIUM-RUN FUNDAMENTALS DIAGRAM

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Source : Peter Isard and Hamid Farugee 1998. Exchange Rate Assessment : Extensions of the Macroeconomic Balance Approach. Washington DC: IMF.

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-- LR (%)







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•	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	12787.21		9.131866	0.000
C(2)	0.057219		0.441194	
C(3)	0.311809		0.753888	
C(4)	29324.44		2.945080	0.003
C(5)	-1262.329	THE P AND A PROPERTY AND	-0.543826	
C(6)	26462.00	11419.41	2.317283	0.021
C(7)	888.8032	860.3031	1.033128	
C(8)	-575,1834	5085,855	-0.113095	0.910
C(9)	-25264.70	7009.677	-3.604261	0.000
C(10)	1.709480	0.236758	7.220360	0.000
C(11)	1593.409	667.9545	2.385506	0.017
C(12)	0.308003	0.013150	23.42203	0.000
C(13)	29.88131	1.946996	15.34739	0.000
C(14)	-5:87E-05	0.000355	-0.165177	0.8689
C(15)	-0.000154	0.000319	-0.482795	0.6296
C(16)	-645.3960	1153.573	-0.559476	0.5763
C(17)	0.689050	0.022711	30.34047	0.0000
C(18)	-986.0381	1001.557	-0.984505	0.3257
C(19)	265.0567	125.3234	2.114983	0.0353
C(20)	-43.09385	82.32845	-0.523438	0.6011
C(21)	0.007783	0.010658	0.730291	0.4658
C(22)	10.75789	0.980853	10.96789	0.0000
C(23)	-0.480523	0.128916	-3.727407	0.0002
C(24)	-0.000117	2.59E-05	-4.527296	0.0000
Determinant residual cove	ariance	0.000000	p.	
Equation: BOPS = CUB + Observations: 22	CAB			
R-squared	1.000000	Mean depend		639.0000
djusted R-squared	1.000000	S.D. depender		1964.750
B.E. of regression	0.000000	Sum squared	resid	0.000000
equation: CAB = LC + SC Observations: 22		2 ) 2 2 4 7 7 8 12 1 1	÷ 3	
R-squared	1.000000	Mean depende	ent var	2132.545
djusted R-squared	1.000000	S.D. depender		3093.919
E. of regression	0.000000	Sum squared i		0.000000

R-squared 0.679423 Mean dependent var 19085.00 Adjusted R-squared 0.645678 S.D. dependent var 6492.219 S.E. of regression 3864.492 Sum squared resid 2.84E+08 Durbin-Watson stat 0.302074 Equation: CUB = TB + SB Observations: 22 R-squared 1.000000 Mean dependent var -1493.545Adjusted R-squared 1.000000 S.D. dependent var 2433.107 S.E. of regression 0.000000 Sum squared resid 0.000000 Equation: DEPOSITS =  $C(4) + C(5)^*CPI$ Observations: 22 R-squared 0.014572 Mean dependent var 24550.54 Adjusted R-squared -0.034700 S.D. dependent var 21669.23 S.E. of regression 22041.98 Sum squared resid 9.72E+09 **Durbin-Watson stat** 0.091977 Equation: EXPORTS = C(6) + C(7)\*REER + C(8)\*TFP **Observations: 22 R-squared** 0.054672 Mean dependent var 24624.59 Adjusted R-squared -0.044836 S.D. dependent var 20863.54 S.E. of regression Sum squared resid 21326.14 8.64E+09 Durbin-Watson stat 0.125119 Equation: GNP = CSUMTION + IVESTMEN + EXPORTS - IMPORTS Observations: 22 27833.73 R-squared 0.049054 Mean dependent var S.D. dependent var 10329.65 Adjusted R-squared 0.092279 Sum squared resid 2.13E+09 S.E. of regression 9841.508 Durbin-Watson stat 0.042617 Equation: IMPORTS =  $C(9) + C(10)^*GNP$ Observations: 22 22316.50 R-squared 0.722737 Mean dependent var 20771.10 S.D. dependent var Adjusted R-squared 0.708874 Sum squared resid 2.51E+09 S.E. of regression 11207.28 0.272533 **Durbin-Watson stat** Equation: IVESTMEN = C(11) + C(12)\*M3 Observations: 22 13251.64 Mean dependent var 0.964825 **R-squared** 10871.41 S.D. dependent var 0.963067 Adjusted R-squared 87301275 Sum squared resid 2089.273 S.E. of regression Durbin-Watson stat 0.777115

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Equation: LR = C(13) + Observations: 22	C(14)*DEPOS	SITS + C(15)*LOANS			
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.451626 0.393902 5.767125 0.418248	Mean dependent var S.D. dependent var Sum squared resid	24.52273 7.407778 631.9350		
Equation: LOANS = C(16) + C(17)*M3 Observations: 22					
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.978736 0.977672 3608.224 1.791082	Mean dependent var S.D. dependent var Sum squared resid	25435.85 24147.56 2.60E+08		
Equation: SC = C(18) + C(19)*R + C(20)*RW + C(21)*KLSE Observations: 22					
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.270134 0.148490 1229.674 1.522940	Mean dependent var S.D. dependent var Sum squared resid	316.1818 1332.585 27217762		
Equation: TB = EXPORTS - IMPORTS Observations: 22					
R-squared Adjusted R-squared S.E. of regression	1.000000 1.000000 0.000000	Mean dependent var S.D. dependent var Sum squared resid	2308.091 1802.758 0.000000		
Equation: U = C(22) + C(23)*CPI + C(24)*GNP Observations: 22					
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.602305 0.560442 1.199270 0.584871	Mean dependent var S.D. dependent var Sum squared resid	5.681818 1.808877 27.32672		







Singapore

- CPI (%)



Singapore










--- GNS (% of GDP)





-- IVESTMEN (US\$ million)





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TB (US\$ million)







System: SIMULTAN Estimation Method: Least Squares Date: 02/09/00 Time: 16:09 Sample: 1975 1996

	Coefficient			
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	1677.209	178.9149	9.374340	
C(2)	0.176659	0.011052	15.98431	0.000
C(3)	0.320752	0.058982	5.438167	0.000
C(4)	29268.58	8161.990	3.585961	0.000
C(5)	-1186.505	2271.166	-0.522421	
C(6)	3732.727	21637.26	0.172514	0.863
C(7)	4332.384	1544.604	2.804850	
C(8)	7617.858	4793.078	1.589346	
C(9)	-5415.492	2215,105	-2.444801	0.015
C(10)	1.900128	0.071397	26.61367	
C(11)	225.0287	676.4196	0.332676	
C(12)	0.181807	0.010143	17.92496	
C(13)	21.90924	0.348425	62.88070	
C(14)	-0.000180	6.95E-05	-2.595210	
C(15)	0.000132	7.28E-05	1.813066	0.070
C(16)	-4775.035	1828.124	-2.611987	0.009
C(17)	0.577687	0.027412	21.07415	0.000
C(18)	-3170.066	2078.767	-1.524974	0.1284
C(19)	928.8495	597.1773	1.555400	0.120
C(20)	-368.2771	339.5160	-1.084712	0.121
C(21)	0.021852	0.040654	0.537520	
C(22)	4.782243	0.439572		0.591
C(23)	-0.244879	0.084120	10.87931	0.000
C(24)	-4.25E-05	1.15E-05	-2.911058 -3.697995	0,0039 0,0003
Determinant residual cova	riance	0.000000		
Equation: BOPS = CUB +( Observations: 22	CAB			
R-squared	1,000000	Mean depend	ent var	3127.182
Adjusted R-squared	1.000000	S.D. depende		5752.844
S.E. of regression	0.000000	Sum squared		0.000000
Equation: CAB = LC + SC			al Conceptation - V-C-C-T-	
Observations: 22	X	► 樽 ∧ ≦		. 1 A J
R-squared	1.000000	Mean depend	ent var	-518.0909
Adjusted R-squared	1.000000	S.D. depende		3347.447
S.E. of regression	0.000000	Sum squared	resid	0,000000
Equation: CSUMTION = C	(1) + C(2)*N	13 + C(3)*IVES	TMEN	
Observations: 22		2 2 2		
				1 1 1 1 1

The second s						
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.997552 0.997295 497.2813 1.538993	Mean dependent var S.D. dependent var Sum squared resid	14353.27 9560.703 4698485.			
Equation: CUB = TB + S Observations: 22	В					
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.991649 0.992028 576.0683 2.000000	Mean dependent var S.D. dependent var Sum squared resid	3645.273 6452.048 7300804.			
Equation: DEPOSITS = C(4) + C(5)*CPI Observations: 22						
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.013462 -0.035864 25538.11 0.059809	Mean dependent var S.D. dependent var Sum squared resid	26091.98 25092.12 1.30E+10			
Equation: EXPORTS = C(6) + C(7)*REER + C(8)*TFP Observations: 22						
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.321628 0.250221 31446.72 0.347979	Mean dependent var S.D. dependent var Sum squared resid	40774.14 36316.89 1.88E+10			
Equation: GNP = CSUMTION + IVESTMEN + EXPORTS - IMPORTS Observations: 22						
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.923782 0.927246 4849.498 0.171549	Mean dependent var S.D. dependent var Sum squared resid	25573.68 17979.16 5.17E+08			
Equation: IMPORTS = C Observations: 22	(9) + C(10)*G	NP	5 X - 3 3 			
R-squared Adjusted R-squared S.E. of regression Durbin-Watson stat	0.972538 0.971165 5882.435 0.371840	Mean dependent var S.D. dependent var Sum squared resid	43177.77 34641.67 6.92E+08			
Equation: IVESTMEN = C(11) + C(12)*M3 Observations: 22						
R-squared Adjusted R-squared S.E. of regression	0.941401 0.938471 1885.255	Mean dependent var S.D. dependent var Sum squared resid	9977.091 7600.311 71083729			

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Durbin-Watson stat	0.320878					
Equation: LR = C(13) + C(14)*DEPOSITS + C(15)*LOANS Observations: 22						
R-squared	0.674727	Mean dependent var	20.66364			
Adjusted R-squared	0.640488	S.D. dependent var	1.769193			
S.E. of regression	1.060796	Sum squared resid	21.38047			
Durbin-Watson stat	0.275427					
Equation: LOANS = C(16) + C(17)*M3 Observations: 22						
R-squared	0.956908	Mean dependent var	26211.83			
Adjusted R-squared	0.954753	S.D. dependent var	23953.28			
S.E. of regression	5095.180	Sum squared resid	5.19E+08			
Durbin-Watson stat	0.367318					
Equation: SC = C(18) + C(19)*R + C(20)*RW + C(21)*SES Observations: 22						
R-squared	0.129036	Mean dependent var	-751.0909			
Adjusted R-squared	-0.016124	S.D. dependent var	2683.447			
S.E. of regression	2704.995	Sum squared resid	1.32E+08			
Durbin-Watson stat	1.840622					
Equation: TB = EXPORTS - IMPORTS Observations: 22						
R-squared	0.934098	Mean dependent var	-2281.091			
Adjusted R-squared	0.937093	S.D. dependent var	2265.516			
S.E. of regression	568.2183	Sum squared resid	7103186.			
Durbin-Watson stat	2.000000					
Equation: U = C(22) + C(23)*CPI + C(24)*GNP Observations: 22						
R-squared	0.510348	Mean dependent var	3.040909			
Adjusted R-squared	0.458805	S.D. dependent var	1.276028			
S.E. of regression	0.938722	Sum squared resid	16.74277			
Durbin-Watson stat	1.273838					