

WHU-Forschungspapier Nr. 64 / 2. Mai 1999

**Asian Financial Markets -  
A Pedagogic Note**

Von Günter Dufey

Forthcoming in "Journal of Asian Business, Vol. 15, no 1, 1999

WHU Koblenz  
Wissenschaftliche Hochschule für Unternehmensführung  
Otto-Beisheim-Hochschule  
Burgplatz 2  
56179 Vallendar/Rhein

- 
- ◆ Günter Dufey, ist Professor für Internationale Unternehmensfinanzierung an der WHU Koblenz und Professor of International Business and Finance an der University of Michigan Business School in Ann Arbor, MI.

## **Asian Financial Markets -- A Pedagogic Note**

Gunter Dufey\*  
WHU-Koblenz – Otto-Beisheim-Hochschule  
and  
University of Michigan Business School

Forthcoming in *Journal of Asian Business*, vol. 15, no. 1, 1999

### **At the Beginning: A Puzzle**

For many years, Asian economies left students of financial markets very uncomfortable with a perplexing question: how did these economies manage such an outstanding economic growth record (see table 1) with financial market structures that were manifestedly poor by all standards of conventional experience, developed in the Western world over many generations? Did observers overlook some critical ingredient? As it turned out, whole theories were developed that suggested new paradigms, or “Asian models” of development, explaining sustained, rapid economic growth without financial systems that were efficient, at least when measured by traditional Western standards.<sup>1</sup>

Table 1

	Growth in Real GDP % p.a.		
	1965-80	1980-90	1990-97
High-income	3.7	3.2	2.1
<b>East Asia</b>	<b>7.3</b>	<b>7.8</b>	<b>9.9</b>
South Asia	3.6	5.7	5.7
Sub-Saharan Africa	4.2	1.7	2.1
E. Europe & C. Asia	--	2.9	-5.4
Mideast & N. Africa	6.7	0.4	2.6
Latin America	6.0	1.8	3.3

Source: World Bank 1998/99.

---

\* Comments and encouragement by Linda Lim are gratefully acknowledged. Responsibility for errors rest with the author.

The region's financial crisis of 1997 has largely resolved this puzzle. Financial market weaknesses are now widely blamed as a major reason for the demise of the Asian miracle. Obviously, this puts the spotlight on the financial market structures in the region. While financial markets from Japan to Indonesia differ considerably,<sup>2</sup> they also exhibit some common traits, all of which were instrumental in explaining the relatively sudden shift in the fortunes of the Asian economies. The focus of this paper is on these common features, providing a comprehensive, if admittedly broadbrush, perspective on the unique political and economic forces that shaped the financial system architecture of this dynamic region of the world. Ultimately, the purpose of this review is to promote further research into significant issues of the political economy of financial markets.

### **The Role of a Financial System**

It may be useful to start reviewing the underlying issues with a "back to the basics" review of what financial systems are supposed to do. Fundamentally, the domestic financial system in any country serves three core functions: first, it makes possible an effective system of payment services, which involves moving funds over space. This function is performed by commercial banks, who offer demand deposits, backed up by liquid balances, precautionary and required, in a central monetary institution, typically a central bank. Second, the financial system provides credit, moving funds from savers to investors in real assets. This involves a movement of funds over time, through the mechanism of mainly (time-) deposits and other liabilities of commercial banks as well as non-bank financial intermediaries such as insurance companies, finance companies, and pension funds. Third, the financial system allocates risk. This is accomplished by way of banks and other financial intermediaries

transforming the riskiness of their assets vs. their liabilities through information processing, including monitoring, and portfolio diversification.

Last but not least, the fact that all these intermediary institutions have equity capital of varying magnitudes allows them to absorb losses on the asset side of their balance sheets. They share the risk management function with markets for securities, i.e., equities, fixed income paper and derivatives, which directly and indirectly provide facilities to transfer risk, permitting savers and borrowers to achieve more optimal risk-return combinations (Van Horne, 1998). For short, the financial system plays a crucial role in effecting commerce and channeling savings into investments, activities constituting the very generators of economic growth.

While the financial systems of Asian countries have offered adequate payment facilities to both domestic and international trade in goods and services,<sup>3</sup> most observers agree that the Asian crisis resulted from systemic weaknesses in the capital allocation process: in the end, there were too many investments that did not yield positive rates of return on a risk-adjusted basis. In other words, for some reason, financial institutions and markets failed to allocate risks and evaluate returns adequately in the later stages of the Asian boom (Chicago Fed Letter, Special Issue, Dec. 1998). What then is so special about Asian financial markets?

### **Distinctive Features of Asian Financial Markets**

#### *High Savings, High Investment*

At the macroeconomic level, Asian financial markets distinguish themselves by high rates of savings, which result from positive, though relatively low, real interest rates, some forced savings schemes, skimpy pension arrangements, relatively early retirement,

and the widespread experience of economic hardship in the not-too-distant past. These voluminous savings were channeled mainly into domestic private investment, and public/private infrastructure, which led to high GDP growth. Foreign capital inflows, often granted on a short-term basis, played a supplemental, but growing role.

However the “quality” and profitability of many of the investments became increasingly doubtful after the first decades of characterized by relatively “easy” investment decisions had passed, when physical capital was scarce, infrastructure was underdeveloped and the United States, Europe, and Japan provided ready models to follow. With rising success, investment decisions by both the private as well as the public sector became more complex, and it was at that stage that the weaknesses of the capital allocation process through the financial system began to matter.

Why were investors, both foreign as well as domestic, so late to catch on? There are a variety of reasons, but a major one was the relatively stable macroeconomic policy environment prevailing in Asia. Analysts were lulled into a false sense of security, especially since their analytical perspectives were conditioned by the previous Latin American debt crises of the 1980s and again the Mexican crisis of 1994 which had their origins in excessive fiscal and monetary government policies. Furthermore, since all investment decisions are made on the basis of expected returns, it takes time to find out whether expectations were excessively optimistic. However, once alerted, investors' expectations can and will shift very quickly in a process that has more to do with a "demonstration effect, rather than "contagious" (Economist, Oct. 31, 1998). Finally, most of the Asian economies had gone through brief, shallow recessions before and it was always the optimists who proved to be correct. No wonder that providers of capital were

given to exuberance. But there were other, more systemic forces at work that drove the Asian economies into over-investment.

### *Financial Intermediation and the Role of Government*

Asian financial markets rely heavily on intermediated structures (banks and other financial institutions) to match different size, time and risk profiles of assets and liabilities required by savers and those that commit funds to real investment. In contrast, the role played by the "direct" transfer of funds and risk to investors via equity and fixed income markets are minor. Governments maintain a strong influence on the banking system and – unlike in the West – they used this role to exercise power over credit allocation decisions extensively (in all Asian countries with the possible exception of Hong Kong).

Governments everywhere can and do influence credit allocation through preferred loans and subsidies. An example in the United States is the Community Reinvestment Act, which causes banks to build losses from such "social" investments into their spreads where the burden is born by depositors and other borrowers. Countries, including those in the West, also establish special financial institutions that, fortified by special guarantees and other privileges, channel funds to priority sectors. However, Asian financial systems used, or rather abused the "regular" commercial banking system for this purpose, and they did so extensively.

At the same time, in exchange for their loans to favored borrowers and compliance with government-directed lending priorities or "policy loans," governments provided implicit or explicit guarantees that banks would be rescued. Moral hazard

resulted with respect to loans to private entities, giving rise to situations where gains were privatized but losses socialized, in what came to be called systems of "crony capitalism."

Along these lines, an additional phenomenon comes into play: banks in Asia as elsewhere were invariably started by entrepreneurs eager to obtain deposits to fund their own projects. Not surprisingly, this led to over-concentrated and hence risky loan portfolios as business groups, extended family enterprises, and related financial institutions were not made subject to limits on their loans to affiliates (Morck and Nakamura, 1999). Of course, in the West, too, this is how most banks got started but with each successive banking crisis the linkages between financial institutions and entrepreneurs/borrowers have been curtailed. Such restrictions have become part of every Western banking system, after a long history of bitter experiences.

In developed countries like the United States, prudential control separates banks and lenders. The regulatory system imposes on banks requirements such as capital-adequacy ratios, loan concentration ratios, and loan-loss disclosure rules to ensure that losses tend to fall on bank shareholders and managers, not on depositors or taxpayers. While not always perfect, such rules promote prudent credit management. Such regulations, however, were either absent or not enforced in the countries that succumbed to the Asian crisis.

Asia represents also a textbook example for related perverse economic incentives pertaining to the relationship between prudential control and credit allocation. For example, banks in many countries are required to hold reserves in the form of government paper or other "approved assets." This can and has been easily abused. In Asian countries, financial systems are typically politicized, with government projects and other

spending going to benefit political supporters, "cronies" and particular electoral constituencies. In Korea, for example, the *chaebol* were built up through "policy loans." Thus, prudential policies designed to make the system safer and credit allocation policies are often at odds – with the former getting the short end of the stick in the tug and pull of the political economy.

### *The Unique Character of Financial Market Liberalization in Asia*

Liberalization of Asian financial systems began in earnest during the 1980s, but it was quite imbalanced: while external transactions were gradually liberalized, which manifested itself in widespread currency convertibility for current and often for capital account transactions also, internal liberalization did not keep pace. Since governments either used the domestic banking system for their own political priorities, or alternatively permitted well-connected entrepreneurs ("cronies") to abuse the financial system by channeling funds into their favorite projects, appropriating the resulting profits while the losses tended to be socialized. Most importantly, throughout Asia, the access of foreign financial institutions, who might disturb these cozy arrangements, were closely controlled.<sup>4</sup> The outcome was a structure resulting ultimately in an "accident" where the global financial markets of the 1990s collided with banking structures of the 1950s in most Asian countries.

### *Development of Parallel Markets and Weakness of Securities Markets*

Not surprisingly, in all Asian countries extensive parallel market mechanisms developed to escape the problems posed by domestic financial market regulatory distortions. External liberalization opened the "offshore markets" to governments and large corporations. Internal markets saw three distinct phenomena. First, finance



companies and other non-bank financial institutions grew rapidly. Thus emerged a less supervised, less regulated system of niche players. Well-known examples were provided by the system of merchant banks in Korea and the finance companies in Thailand. Second, informal "curb markets" developed in many countries, often providing the only access to funds for small and medium-size enterprises. Third, Japanese keiretsu networks, Korean chaebol and Oversea Chinese family groups reflected phenomena of "internalized" capital markets, sourcing funds from related companies and financial affiliates rather than on an arms-length basis from unaffiliated banks or the securities markets.

All this is related to the additional characteristic that securities markets are underdimensioned everywhere in Asia, with the possible exception of Japan. Fixed income markets for debt securities are weak because there is little information and there are few institutional investors, such as pension funds and insurance companies. Last but not least, the absence of bankruptcy laws and foreclosure implementation is inimical to arms-length transactions in markets for fixed income securities. Equity markets are also underdeveloped relative to the scope of economic activity, because of lack of information, and serious control issues related to corporate governance. The absence of professional management in family-held companies is another well-known phenomenon in the Chinese business culture prevailing south of Korea and Japan. All this has been accentuated by the fact that economic activity in many Asian countries is concentrated in ethnic minorities who feel quite vulnerable – often with good reason. All of these phenomena, in turn, reflect uncertainty about fundamental property rights. It is not

surprising then, to observe a "casino mentality" exhibited by many investors which tends to give stock markets in the region a special character.

*Outlook: Recovery from the Asian Crisis*

In the 18 months since the Asian crisis erupted, the purely cyclical challenge has been overcome quite successfully due to the quality of human resources and the stability of the political system in most countries. Currency depreciated and nominal wages were adjusted downward. Imports collapsed, but exports to the United States and Europe increased dramatically after some months' delay. The early IMF program, whatever its merits otherwise, prevented post-devaluation inflation, and interest rates have dropped dramatically as a result. Thus, the first phase of the recovery process has gone quite well.

However, when will confidence be restored so domestic and foreign investors will resume their activities and countries will resume growth? This second phase will be much harder to come by. Recovery from the financial crisis has been hampered by governments bailing out banks, and by the absence of bankruptcy laws allowing the foreclosure and sale of distressed assets at a lower price. Economies cannot recover until bankers lend again profitably. In order to end an investment induced recession, banks need to reallocate capital from negative to positive-return projects, a process that requires strong property rights and effective bankruptcy laws. However, laws alone will not do; they require a supporting infrastructure of economically competent and honest judges, accountants and lawyers, which tend to be in short supply in most Asian countries. Last but not least, the necessary reshuffling of the ownership and control of assets attacks the very foundation of Asian political-economic power structures and there continues to be much resistance.

Foreign investment in the financial system is also required for recovery – not only to promote the inflow of foreign capital efficiently, but also to effect the increased competition, different credit standards, and alternatives to local lenders that foreign banks will provide. But these foreign banks not only will need to possess strong competitive advantage<sup>5</sup> but must overcome nationalistic feelings against "fire sales" to foreigners. Such emotions tend to be quite strong, given the fact that virtually all the Asian countries had colonial pasts in the not-too-distant history. Thus, most observers agree that the Asian crisis will not be a fleeting phenomenon. Structural reforms of financial systems which in Asia means ultimately political reforms, will play a crucial role in the speed and scope of the recovery process.

#### References

- Chicago Fed Letter*, Special Issue, The Federal Reserve Bank of Chicago, Dec. 1998, No. 136a.
- Gunter Dufey. 1983. "Banking in the Asia Pacific Area." In R. Moxon, J.F. Truitt, and T. Roehl (eds.) *Asia Pacific Dynamics*. Greenwich, CT: JAI Press.
- Gunter Dufey and Ian H. Giddy. 1994. "Money Markets of the Pacific Basin." In Theodore Bos and Thomas A. Fetherston (eds.), *Research in the Financial Markets of the Pacific Basin*. Greenwich, CT: JAI Press.
- The Economist*. Oct. 31, 1998. "Is Contagion A Myth?": 82.
- Linda Y.C. Lim. 1998. "Whose 'Model' Failed? Implications of the Asian Economic Crisis," *Washington Quarterly*, 21:3: 25-36
- Randall Morck and Masao Nakamura. Feb. 1999. "Banks and Corporate Control in Japan," *The Journal of Finance*, LIV, 1: 319-339.
- Anjan V. Thakor and Arnoud Boot. Fall 1997. "Financial System Architecture," *Review of Financial Studies*, 10-3: 693-733.

James C. Van Horne. 1998. *Financial Market Rates and Flows*, 5<sup>th</sup> ed. Upper Saddle River, NJ: Prentice Hall.

The World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. The World Bank and Oxford University Press.

---

<sup>1</sup> See for example: The World Bank, *The East Asian Miracle: Economic Growth and Public Policy*, The World Bank and Oxford University Press, 1993. Also, Linda Y.C. Lim, "Whose 'Model' Failed? Implications of the Asian Economic Crisis," *Washington Quarterly*, 1998, 21:3, pp. 25-36.

<sup>2</sup> The material applies throughout Asia, with the exception of Hong Kong and possibly Singapore. These countries adopted early on regulatory systems influenced by those prevailing in the United Kingdom. Interestingly, they also do not apply to China (PRC), which has largely maintained its socialist-stalinist banking system well into the 1990s with reforms only at the margins.

<sup>3</sup> When everything is said and done, however, most intra Asian cross-border trade is invoiced, financed, and paid for in U.S. dollars.

<sup>4</sup> Progress under WTO regarding financial services has been blocked for many years largely by a group of Asian countries. Some movement in the negotiations regarding access of foreign financial service providers occurred in the Fall of 1997, generally attributed to the effects of the Asian financial crises.

<sup>5</sup> See Dufey, 1983.

**Forschungspapiere  
der Wissenschaftlichen Hochschule für Unternehmensführung (WHU)  
- Otto-Beisheim-Hochschule –**

<b>Lfd. Nr.</b>	<b>Autor</b>	<b>Titel</b>
1.	Weber, Jürgen	Theoretische Herleitung eines Controlling in Software-Unternehmen (Juni 1991)
2.	Heinzl, Armin	Spinning off the Information Systems Support Function (Juni 1991)
3.	Setzer, Ralf	Ergebnisse einer Befragung zur Beschaffungsplanung für zentrale Rechnersystem (August 1991)
4.	Pfähler, Wilhelm Lambert, Peter	Die Messung von Progressionswirkungen (Oktober 1991)
5.	Pfähler, Wilhelm Lambert, Peter	Income Tax Progression and Redistributive Effect: The Influence of Changes in the Pre-Tax Income Distribution
6.	Pfähler, Wilhelm Leder, Thomas	Operative Synergie – von der Theorie zur Unternehmenspraxis (z. Zt. nicht erhältlich, wird überarbeitet)
7.	Wiese, Harald	Network Effects and Learning Effects in a Heterogeneous Dyopoly (Dezember 1991)
8.	Heinzl, Armin Stoffel, Karl	Formen, Motive und Risiken der Auslagerung der betrieblichen Datenverarbeitung (Januar 1991)
9.	Bungenstock, Christian Holzwarth, Jochen Weber, Jürgen	Wegfallkosten als Informationsbasis strategischer Entscheidungen (Januar 1992)
10.	Lehner, Franz	Messung der Software-Dokumentationsqualität (August 1992)
11.	Heinzl, Armin Sinß, Michael	Zwischenbetriebliche Kooperationen zur kollektiven Entwicklung von Anwendungssystemen (August 1992)
12.	Heinzl, Armin	Die Ausgliederung der betrieblichen Datenverarbeitung
13.	Lehner, Franz	Expertensysteme zur Unterstützung der Strukturorganisatorischen Gestaltung von Unternehmen
14.	Lehner, Franz	Brauchen wir eine Theorie der Wirtschaftsinformatik?

<b>Lfd. Nr.</b>	<b>Autor</b>	<b>Titel</b>
15.	Lehner, Franz Setzer, Ralf Hofmann, Hubert	Wartung und Pflege von Wissensbanken
16.	Müller, Wolfgang Klein, Sebastian	Grundzüge einer verhaltensorientierten Preistheorie im Dienstleistungsmarketing
17.	Lehner, Franz	Considerations on Information System Based on an Empirical Study
18.	Lehner, Franz Hofmann, Hubert Hofmann, Hubert	Maintenance of Knowledge Based Systems
19.	Lehner, Franz Sikora, Hermann	Wartung objektorientierter Softwaresysteme
20.	Lehner, Franz Röcklein, Wolfgang	Anwendung der Erfolgsfaktoren-Analyse zur Diagnose der betrieblichen Informationsverarbeitung
21.	Lehner, Franz	Gedanken und Notizen zur Entwicklung von Informatik-Strategien
22.	Albach, Horst	La Economia de la Empresa Como Ciencia
23.	Müller, Wolfgang	Konzeptionelle Grundlagen des Integrativen Dienstleistungsmarketing
24.	Weber, Jürgen Hamprecht, Markus	Stand und Anwendungsperspektiven des Controlling in Verbänden und ähnlichen Non-Profit-Organisationen (März 1994)
25.	Weber Jürgen Kummer, Sebastian Großklaus, Armin Nippel, Harald Warnke, Dorothée	Methodik zur Generierung von Logistik-Kennzahlen (Juni 1994)
26.	Kummer, Sebastian	Controlling Logistics in the German Automotive Industry (Juni 1994)
27.	Weber, Jürgen	Zur Bildung und Strukturierung spezieller Betriebswirtschaftslehren (August 1994)
28.	Weber, Jürgen Kaminski, Arndt	Zum Promotionsverhalten in der deutschsprachigen Betriebswirtschaftslehre (Oktober 1994)

<b>Lfd. Nr.</b>	<b>Autor</b>	<b>Titel</b>
29.	Rösler, Frank	Target Costing für komplexe Produkte Ein Diskussionsbeitrag zur Anwendungsproblematik des Zielkostenmanagements (März 1995)
30.	Weber, Jürgen Brettel, Malte Großklaus, Armin Hamprecht, Markus Rösch, Barbara E. Schäffer, Utz	Grundgedanken zur Entwicklung einer Theorie der Unternehmensführung (Mai 1995)
31.	Weber, Jürgen	Kostenrechnung-(s)-Dynamik - Einflüsse hoher unternehmensex- und -interner Veränderungen auf die Gestaltung der Kostenrechnung (Mai 1995)
32.	Weber, Jürgen	Selektives Rechnungswesen (Mai 1995)
33.	Weber, Jürgen	Controlling versus New Public Management als alternative oder sich ergänzende Konzepte der Umgestaltung öffentlicher Institutionen? (März 1996)
34.	Weber, Jürgen Goedel, Hanns Schäffer, Utz	Zur Gestaltung der strategischen und operativen Planung (April 1996)
35.	Weber, Jürgen Brettel, Malte Schäffer, Utz	Gedanken zur Unternehmensführung (April 1996)
36.	Jost, Peter-J.	Crime, Coordination, and Punishment: An Economic Analysis (Mai 1996)
37.	Jost, Peter-J.	A Positive Economic Analysis of Law Enforcement (September 1996)
38.	Weber, Jürgen Weißberger, B	Relative Einzelkosten- und Deckungsbeitragsrechnung: A Critical Evaluation of Riebel's Approach (November 1996)
39.	Weber, Jürgen Weißberger, B	Rechnungslegungspolitik und Controlling: Zur Gestaltung der Kostenrechnung (November 1996)

<b>Lfd. Nr.</b>	<b>Autor</b>	<b>Titel</b>
40.	Weißberger, B.	Accounting as a Credence Good: An Attempt to Throw Some Light on the Recent Loss of Relevance of German Management Accounting (November 1996)
41.	Weißberger, B.	Kundenbindung und Vertrauen in der Beziehung zwischen Wirtschaftsprüfer und Mandant (November 1996)
42.	Weber, Jürgen	Kostenrechnung am Scheideweg? (November 1996)
43.	Weber, Jürgen Aust, René Weißberger, B.	Benchmarking des Controllerebereichs: Ein Erfahrungsbericht
44.	Weißberger, B.	Die Regelung zum Prüferwechsel im Referentenentwurf zum KonTraG: Eine neo-institutionale Analyse
45.	Weber, Jürgen	Zur Abgrenzung von Führung und Controlling (Dezember 1997)
46.	Olber, Jochen Schweizer, Christoph Sturm, Patrick	Forschung und Lehre in Entrepreneurship, Stand der Disziplin in den USA und Schlußfolgerungen für Deutschland Band 1: Hauptteil
47.	Olber, Jochen Schweizer, Christoph Sturm, Patrick	Forschung und Lehre in Entrepreneurship, Stand der Disziplin in den USA und Schlußfolgerungen für Deutschland Band 2: Dokumentation
48.	Weber, Jürgen Schäffer, Utz	Sicherstellung einer angemessenen Rationalität der Führung als Funktion des Controlling (Januar 1998)
49.	Weber, Jürgen Schäffer, Utz	Sicherstellung der Rationalität von Führung als Controlleraufgabe? (April 1998)
50.	Hommel, Ulrich Pritsch, Gunnar	Investitionsbewertung mit dem Realloptionsansatz (April 1998)
51.	Weber, Jürgen Schäffer, Utz	Sicherung der Rationalität in der Willensbildung durch die Nutzung des fruchtbaren Spannungsverhältnisses von Reflexion und Intuition. (Mai 1998)
52.	Dufey, Günter Hommel, Ulrich	Financing the German Mittelstand. (Mai 1998)



<b>Lfd. Nr.</b>	<b>Autor</b>	<b>Titel</b>
53.	Dufey, Günter Hommel, Ulrich	Why there is never Peace in International Trade: The Case of Canada-U.S. Economic Relations. (Mai 1998)
54.	Weber, Jürgen	Logistik als akademische Disziplin am Ende des 20. Jahrhunderts – ein deutscher Standpunkt (Juli 1998)
55.	Schäffer, Utz	Führung von lernenden Gemeinschaften im Unternehmen (August 1998)
56.	Weber, Jürgen Bach, Sabine Brettel, Malte Grothe, Martin Schäffer, Utz	Grundmodell einer dynamischen Theorie ökonomischer Akteure (August 1998)
57.	Dufey, Günter Hommel, Ulrich	Mergers and Acquisitions
58.	Hommel, Ulrich	"Financial and Operators Hedging of Currency Risk" (Oktober 1998)
59.	Weber, Jürgen Knorren, Norbert	Sicherung der Rationalität durch wertorientierte Planung (November 1998)
60.	Weber, Jürgen Schäffer, Utz	Balanced Scorecard – Gedanken zur Einordnung des Konzepts in das bisherige Controlling-Instrumentarium (November 1998)
61.	Weber, Jürgen	Stand und Entwicklungsperspektiven des Logistik-Controlling (Januar 1999)
62.	Weber, Jürgen Schäffer, Utz	Entwicklung von Kennzahlensystemen (Februar 1999)
63.	Hommel, Ulrich Riemer-Hommel, Petra	Die ökonomische Bewertung von Arbeitsflexibilisierungsmaßnahmen mit Hilfe des Realoptionsansatzes (April 1999)
64.	Dufey, Günter	Asian Financials Markets – A Pedagogic Note (forthcoming in "Journal of Asian Business, Vol. 15, no.1, 1999) - (Mai 1999)